

TABLE OF CONTENTS

| | | | |
|---|----|--|----|
| Home | 11 | Architecture (MArch) | 44 |
| Welcome to Thomas Jefferson University | 12 | Architecture and Design Research (MS) | 45 |
| University Structure & Leadership | 12 | Architecture and Design Research (PhD) | 46 |
| University Mission | 12 | Architecture Studies (BS) & Real Estate Development (MS), Accelerated 4+1 | 47 |
| Commitment to Diversity & Equity | 12 | Construction Management (BS) | 48 |
| Title IX | 12 | Construction Management (Graduate Certificate) | 49 |
| Accreditations | 13 | Construction Management (MS) | 50 |
| A Brief History of the University | 13 | Construction Mgt. (MS) & Real Estate Development (MS) 1+1 | 50 |
| Campus Locations | 14 | Construction Mgt. (MS) & Sustainable Design (MS) , 1+1 | 51 |
| Academic Calendars | 15 | Design of Living Buildings (Graduate Certificate) | 51 |
| Admissions | 16 | Design of Resilient Communities (Graduate Certificate) | 52 |
| Tuition & Fees | 17 | Geographic Information Systems (Graduate Certificate) | 52 |
| Financial Aid | 19 | Geospatial Technology for Geodesign (Graduate Certificate) | 52 |
| Veterans' Administration | 20 | Graduate Concentrations | 53 |
| Undergraduate Degree Components | 21 | Green Building Operations (Graduate Certificate) | 54 |
| Honors Institute | 23 | Historic Preservation (Graduate Certificate) | 55 |
| Internship | 24 | Historic Preservation (MS) | 55 |
| Student Support Offices & Contacts | 24 | Interior Architecture (MS) | 56 |
| Academic Programs | 25 | Interior Design (BS) | 57 |
| Accelerated & Dual Degree Programs | 25 | Interior Design (BS) & Architecture (MArch) Accelerated, 4+2 | 58 |
| Certificate Programs | 27 | Interior Design (BS) & Historic Preservation (MS) 4+1 | 59 |
| Continuing & Professional Studies Programs | 30 | Interior Design (BS) & Real Estate Development (MS) 4+1 | 59 |
| Graduate Programs | 31 | Interior Design (BS) & Sustainable Design (MS), Accelerated 4+1 | 59 |
| Undergraduate Programs | 35 | Landscape Architecture (BLA) | 59 |
| Colleges & Schools | 38 | Landscape Architecture (BLA) & Sustainable Design (MS) Accelerated 4 + 1 | 60 |
| College of Architecture & The Built Environment (CABE) | 38 | Real Estate Development (Graduate Certificate) | 61 |
| Architectural Studies (BS) | 39 | Real Estate Development (MS) | 61 |
| Architectural Studies (BS) & Architecture (MArch) 4+2 | 40 | Smart Cities & Urban Analytics (Graduate Certificate) | 62 |
| Architectural Studies (BS) & Historic Preservation (MS), Accelerated 4+1 | 40 | Sustainable Design (MS) | 62 |
| Architectural Studies (BS) & Interior Architecture (MS) 4+1 | 41 | Sustainable Design - in Partnership with Brick (MS) | 63 |
| Architecture (BArch) | 41 | Sustainable Leadership (Graduate Certificate) | 64 |
| Architecture (BArch) & Construction Management (MS) 5+1 | 42 | Urban Design- Future Cities (MUD) (MS) | 64 |
| Architecture (BArch) & Historic Preservation (MS) Accelerated 5+1 | 42 | College of Health Professions (JCHP) | 65 |
| Architecture (BArch) & Interior Architecture (MS), 4+1 | 43 | Art Therapy Advanced Studies (Graduate Certificate) | 66 |
| Architecture (BArch) & Real Estate Development (MS) 5+1 | 43 | Behavioral & Health Services (BS) | 67 |
| Architecture (BArch) & Urban Design (MS) | 43 | Biotechnology (BS/MS) | 67 |
| Architecture (BS) & Sustainable Design (MS) Accelerated 5+1 | 44 | Biotechnology (BS) | 69 |
| | | Biotechnology (MS) | 70 |

| | | | |
|---|----|---|-----|
| Clinical Chemistry (Graduate Certificate) | 72 | Healthcare Information Systems (Undergraduate Certificate) | 96 |
| Clinical Hematology (Graduate Certificate) | 72 | Immunohematology (Graduate Certificate) | 97 |
| Clinical Microbiology (Graduate Certificate) | 73 | Institute of Emerging Health Professions | 97 |
| Community & Trauma Counseling (MS) | 73 | Business & Organizational Continuity (Graduate Certificate) | 98 |
| Community & Trauma Counseling: Art Therapy Concentration (MS) | 74 | Cannabis Business (Graduate Certificate) | 98 |
| Community & Trauma Counseling: Child Trauma & Play Therapy Concentration (MS) | 75 | Cannabis Medicine (Graduate Certificate) | 98 |
| Community & Trauma Counseling: Trauma, Addiction & Recovery Concentration (MS) | 76 | Cannabis Science (Graduate Certificate) | 98 |
| Computed Tomography (Undergraduate Certificate) | 76 | Cardiovascular Perfusion (MS) | 99 |
| Couple & Family Therapy (MFT) | 76 | Cardiovascular Perfusion Post-Professional (MS) | 99 |
| Crisis and Emergency Management (Executive MS) | 77 | /colleges-schools/college-health-professions-jchp/ institute-emerging-health-professions/cardiovascular- perfusion-post-professional-ms/text/ | 100 |
| Cytotechnology & Cell Sciences (BS) | 77 | Health & Human Services: Radiologic Technology (AS) | 100 |
| Cytotechnology & Cell Sciences (BS/MS) | 78 | Health Professions Education (MS) | 100 |
| Cytotechnology & Cell Sciences (MS) | 78 | Health Professions Teaching and Learning (Graduate Certificate) | 101 |
| Emergency & Disaster Management (Graduate Certificate) | 80 | Integrative Health Education & Leadership (Advanced- Practice Certificate) | 101 |
| Emergency & Disaster Management (MS) | 80 | Integrative Health Sciences (MS) | 101 |
| Health & Human Services (AS) | 81 | Integrative Nutrition (Advanced-Practice Certificate) | 102 |
| Health Insurance Management (BS) | 81 | Medical Cannabis Science and Business (MS) | 102 |
| Health Professions Pathways (Accelerated Pathway) | 81 | Medical Coding & Data Quality (Undergraduate Certificate) | 103 |
| Health Sciences (BS) | 81 | Medical Practice Management (Undergraduate Certificate) | 103 |
| Health Sciences (BS) | 82 | Mind-Body Medicine (Advanced-Practice Certificate) | 104 |
| Health Sciences (BS) & Athletic Training (MS) | 82 | Medical Imaging & Radiation Sciences (BS) | 104 |
| Health Sciences (BS) & Community & Trauma Counseling (MS) | 83 | Medical Imaging & Radiation Sciences (MS) | 107 |
| Health Sciences (BS) & Community and Trauma Counseling (MS) | 84 | Medical Laboratory Leadership (MS) | 108 |
| Health Sciences (BS) & Nutrition & Dietetic Practice (MS) | 85 | Medical Laboratory Science (MLT to MLS Pathway) | 109 |
| Health Sciences (BS) & Occupational Therapy (OTD) | 86 | Medical Laboratory Science (BS) | 110 |
| Health Sciences (BS) & Occupational Therapy (OTD) | 87 | Medical Laboratory Sciences (BS/MS) | 110 |
| Health Sciences (BS) & Physician Assistant (PA) | 88 | Medical Laboratory Sciences (MS) | 112 |
| Health Sciences (DHSc) | 89 | Midwifery (Advanced-Practice Certificate) | 113 |
| Health Sciences: Pre-Medical Imaging/Radiation Sciences (BS) | 90 | Midwifery (DM) | 113 |
| Health Sciences: Pre-Medical Lab Sci/Biotechnology (BS) | 91 | Midwifery (MS) | 114 |
| Health Sciences: Pre-Nursing (BS) | 92 | Midwifery (MS) Completion Program | 115 |
| Health Sciences: Pre-Pharmacy (BS) | 92 | Midwifery (MS/DM) | 115 |
| Health Sciences: Pre-Physician Assistant (BS) | 94 | Midwifery (Re-entry to Practice Process) | 116 |
| Health Sciences: Pre-Respiratory Therapy (BS) | 95 | Molecular Biology (Graduate Certificate) | 116 |
| Health Services Management (BS) | 95 | Nutrition & Dietetic Practice (MS) | 116 |
| Health Studies (BS) | 96 | Physician Assistant Studies (MS) & Health Sciences (DHSc) | 117 |

| | | | |
|---|-----|--|-----|
| Physician Assistant Studies - Center City (MS) | 118 | Executive Leadership (DNP) | 147 |
| Physician Assistant Studies – East Falls (MS) | 119 | Nurse Anesthesia (DNP) | 148 |
| Psychology (BS) & Community & Trauma Counseling (MS) | 120 | Nurse Practitioners(Post-Graduate Certificate) | 148 |
| Respiratory Therapy (BS) | 121 | Nursing (BSN) | 148 |
| Trauma, Addiction & Recovery Advanced Studies (Graduate Certificate) | 122 | Nursing (DNP) | 150 |
| College of Humanities & Sciences (JCHS) | 122 | Nursing (MSN) | 151 |
| Biopsychology (BS) | 125 | Nursing (PhD) | 153 |
| Communication & Media Studies (BS) | 126 | Nursing Education: Academic Nursing (Advanced Certificate) | 154 |
| Interdisciplinary Studies (BS) | 127 | Transformative Systems Leadership (Advanced Certificate) | 154 |
| Law & Society (BS) | 128 | Transformative Systems Leadership (MSN) | 155 |
| Psychology (BS) | 129 | College of Pharmacy (JCP) | 155 |
| College of Life Sciences (JCLS) | 130 | Pharmaceutical Sciences (MS) | 155 |
| Biochemistry (BS) | 131 | Pharmacy (PharmD) | 156 |
| Biochemistry, Structural, & Molecular Biology (PhD) | 132 | Pharmacy (PharmD) & Public Health (MPH) | 157 |
| Biology (BS) | 132 | Population Health Pharmacy (Graduate Certificate) | 157 |
| Biomedical Sciences (MS) | 133 | Population Health Pharmacy (MS) | 158 |
| Cell & Developmental Biology (MS) | 134 | College of Population Health (JCPH) | 158 |
| Cell Biology & Regenerative Medicine (PhD) | 134 | Applied Health Economics & Outcomes Research (Graduate Certificate) | 160 |
| Chemistry (BS) | 135 | Applied Health Economics & Outcomes Research (MS) | 160 |
| Clinical Research & Trials: Implications (Graduate Certificate) | 136 | Emergency and Disaster Management (MS) & Public Health (MPH) | 161 |
| Clinical Research (MS) | 136 | Emergency and Disaster Management (MS) & Public Health (MPH) | 162 |
| Clinical Research: Operations (Graduate Certificate) | 137 | Health Data Science (Graduate Certificate) | 162 |
| Forensic Biology (MS) | 137 | Health Data Science (MS) | 163 |
| Forensic Toxicology (MS) | 138 | Health Policy (Graduate Certificate) | 164 |
| Genetics, Genomics & Cancer Biology (PhD) | 138 | Health Policy (MS) | 164 |
| Human Clinical Investigation: Theory (Graduate Certificate) | 139 | Healthcare Quality & Safety (Advanced Practice Certificate) | 166 |
| Human Genetics & Genetic Counseling (MS) | 140 | Healthcare Quality & Safety (Graduate Certificate) | 166 |
| Immunology & Microbial Pathogenesis (PhD) | 141 | Healthcare Quality & Safety (MS) | 167 |
| Infectious Disease Control (Graduate Certificate) | 141 | Law (JD) & Public Health (MPH) | 169 |
| Integrative Physiology (PhD) | 142 | Medicine (MD) & Public Health (MPH) & (DO/MPH) | 169 |
| Microbiology & Immunology (MS) | 143 | Nursing (PhD) & Public Health (MPH) | 170 |
| Neuroscience (PhD) | 143 | Operational Excellence (Advanced-Practice Certificate) | 170 |
| Patient-Centered Research (Graduate Certificate) | 144 | Operational Excellence (Graduate Certificate) | 171 |
| Pharmacology (MS) | 144 | Operational Excellence (MS) | 171 |
| Pre-Medical Studies (BS) | 145 | Pharmaceutical Science (PharmD) & Public Health (MPH) | 172 |
| College of Nursing (JCN) | 146 | Population Health (Advanced -Practice Certificate) | 172 |
| Advanced Headache Diagnosis & Management (Post-Graduate Certificate) | 146 | Population Health (DHSc) | 173 |
| Emergency Nurse Practitioner (Post-Graduate Certificate) | 147 | Population Health (Graduate Certificate) | 173 |

| | | | |
|---|-----|---|-----|
| Population Health (MS) | 174 | Consulting (Graduate Certificate) | 201 |
| Population Health Science (PhD) | 176 | Diversity, Equity and Inclusion for Healthcare Leaders (Graduate Certificate) | 202 |
| Public Health (Graduate Certificate) | 177 | Effective Organizational Communications (Graduate Certificate) | 202 |
| Public Health (MPH) | 178 | Fashion Merchandising & Management (BS) | 203 |
| Public Health (MPH) | 179 | Fashion Merchandising and Management (MS) | 204 |
| Social Work (MSS) & Public Health (MPH) | 179 | Finance (BS) | 204 |
| College of Rehabilitation Sciences (JCRS) | 180 | Fundamentals of Leadership and Organizational Development (Graduate Certificate) | 205 |
| Athletic Training (MS) | 180 | Healthcare Leadership (Graduate Certificate) | 205 |
| Coaching In Context (Advanced-Practice Certificate) | 181 | Human Resource Leadership (Graduate Certificate) | 206 |
| Emerging Leaders in Autism Practice & Research (Advanced- Practice Certificate) | 182 | Human Resource Management (BS) | 206 |
| Exercise Science (BS) | 182 | Information Technology (BS) | 207 |
| Exercise Science (BS) & Athletic Training (MSAT) | 183 | International Business (BS) | 208 |
| Exercise Science (BS) & Occupational Therapy (OTD) | 184 | Management (BS) | 208 |
| Exercise Science (BS) & Physical Therapy (DPT) | 185 | Marketing (BS) | 209 |
| Hand & Upper Limb Rehabilitation (Advanced-Practice Certificate) | 187 | MBA (Business Administration) | 210 |
| Life Care Planning (Graduate Certificate) | 187 | Organizational Change Management (Graduate Certificate) | 212 |
| Neuroscience: Advanced Concepts for Evidence Based Practice (Graduate Certificate) | 187 | Organizational Leadership (BS) | 212 |
| Occupational Therapy (PPOTD) | 188 | Organizational Leadership (BS) | 213 |
| Occupational Therapy (ASOT) | 188 | Organizational Leadership (MS) | 213 |
| Occupational Therapy - Center City (OTD) | 189 | Strategic Leadership (DMgt) | 214 |
| Occupational Therapy- Center City (MSOT) | 190 | Taxation (MS) | 215 |
| Occupational Therapy- East Falls (BS/MSOT) | 190 | Transformational Leadership (Graduate Certificate) | 215 |
| Occupational Therapy-East Falls (MSOT) | 191 | School of Design & Engineering | 216 |
| Physical Therapy (DPT) | 192 | Animation & Digital Media (BS) | 216 |
| Speech-Language Pathology (MS-SLP) | 193 | Brand Management (Graduate Certificate) | 217 |
| Teaching in the Digital Age (Advanced-Practice Certificate) | 193 | Engineering (BSE) | 217 |
| Continuing & Professional Studies (CPS) | 194 | Engineering: Textile Concentration (MS) | 218 |
| Kanbar College of Design, Engineering & Commerce (KANBAR) | 195 | Fashion Design (BS) | 219 |
| Jefferson Institute for Bioprocessing | 196 | Global Textile Design (MS/MSc) | 220 |
| Advanced Biotherapeutics Manufacturing & Regulatory Affairs (MS) | 196 | Health Communication Design (MS) | 220 |
| Biologics Process Engineering (PhD) | 197 | Industrial Design (BS) | 221 |
| Biopharmaceutical Process Development (Graduate Certificate) | 198 | Industrial Design (MS) | 222 |
| Biopharmaceutical Process Engineering (MS) | 198 | International Fashion Design Management (MS) | 222 |
| School of Business | 199 | Mechanical Engineering (BS) | 223 |
| Accounting (BS) | 200 | Surface Imaging (Advanced-Practice Certificate) | 224 |
| Brand Management (Graduate Certificate) | 201 | Textile Design (BS) | 224 |
| Business Management (BS) | 201 | Textile Design (MS) | 225 |
| | | Textile Design- Accelerated (BS/MS) | 226 |
| | | Textile Engineering & Sciences (PhD) | 226 |

| | | | |
|---|-----|---|-----|
| Textile Product Science (BS) | 227 | CAD (Computer Aided Design) (CAD) | 263 |
| Textile Technology (MS) | 228 | Chemistry (CHEM) | 264 |
| User Experience & Interaction Design (MS) | 228 | Chemistry (Online) (CHMX) | 268 |
| Visual Communication Design (BS) | 229 | Chemistry (P4) (CHE) | 268 |
| Sidney Kimmel Medical College (SKMC) | 230 | College Studies (CLST) | 268 |
| Medicine (MD) | 231 | Communication (Online) (COMX) | 268 |
| Search Courses | 233 | Communications & Media Studies (COMS) | 269 |
| Course Descriptions | 234 | Communications (COMM) | 271 |
| Undergraduate | 234 | Community & Trauma Counseling (CTC) | 272 |
| American Diversity (ADIV) | 236 | Computation (COMP) | 272 |
| American Studies (AMST) | 239 | Computer (Online) (CISX) | 272 |
| Animation (ANIM) | 240 | Computer Studies (CMST) | 273 |
| Anthropology (ANTH) | 241 | Construction Management (CMGT) | 273 |
| Applied Business Analytics (ABA) | 241 | Cont & Prof Studies (CPS) | 275 |
| Arch & Interiors History (AHST) | 242 | Cont & Prof Studies (Online) (CPSX) | 275 |
| Architectural Engineering (AREN) | 242 | Cont. Studies Seminar (Online) (CSSX) | 276 |
| Architectural Studies (ARST) | 243 | Contemporary Global Issues (CGIS) | 276 |
| Architecture Design (ARDS) | 245 | Continuing Studies Seminar (CSSE) | 276 |
| Architecture Foundations (ARFD) | 246 | Conversational Medical Chinese (CHI) | 277 |
| Area Studies (ASTU) | 247 | Creativity & Ldshp Core (ONL) (CLCX) | 277 |
| Art & Science of Healthcare (ASH) | 247 | Creativity & Leadership Core (CLC) | 277 |
| Art (ART) | 247 | Criminal Justice (CRJ) | 278 |
| Art History (ARTH) | 247 | Criminal Justice (Online) (CRJX) | 278 |
| Arts & Culture (ARCU) | 248 | Cytogenetic Technology (CG) | 278 |
| Arts (Online) (ARTX) | 248 | Cytogenetic Technology (CTG) | 279 |
| Athletic Admin Certificate (CAAC) | 248 | Cytotechnology (CT) | 279 |
| Basic Textiles (CBST) | 248 | Cytotechnology Post Certificat (CTP) | 281 |
| Behavior Health (Online) (BHTX) | 248 | Debating Global Issues (DBTG) | 281 |
| Behavioral Health (BHLT) | 248 | Debating US Issues (DBTU) | 281 |
| Behavioral Health Services (BHS) | 249 | DEC Frameworks (DECF) | 281 |
| Behavioral Health Services ONL (BHSX) | 250 | DEC Generic Courses (DECG) | 281 |
| Biology (BIOL) | 250 | DEC Methods (DECM) | 282 |
| Biology (Online) (BIOX) | 258 | DEC Process (DECP) | 282 |
| Biology (P4) (BIO) | 259 | DEC Systems (DECS) | 282 |
| Biology/Chemistry (BCHM) | 259 | Dental Hygiene (DH) | 282 |
| Bioprocessing (BP) | 260 | Design Foundations (DSGF) | 282 |
| Biotechnology (BT) | 261 | Design, Engr. & Commerce (DEC) | 283 |
| Building Construction Studies (BCS) | 262 | Diag Imag Computed Tomography (DIC) | 283 |
| Business (BUS) | 262 | Diag Imag Magnetic Resonance (DIM) | 283 |
| Business (Online) (BUSX) | 263 | Diag Imag Nuclear Medicine (DIN) | 284 |
| Business Law (BLAW) | 263 | Diagnostic Imaging (DI) | 284 |
| Business Law (Online) (BLWX) | 263 | Diagnostic Imaging Adv Plc (DIA) | 285 |

| | | | |
|---|-----|---|-----|
| Diagnostic Imaging Cardiovasc (DIV) | 285 | Health Services (Online) (HLSX) | 316 |
| Diagnostic Imaging Med Sonog (DIS) | 286 | Health Services Management (HSM) | 316 |
| Diagnostic Imaging Radiography (DIR) | 287 | Health Services Mgmt (Online) (HSMX) | 317 |
| Digital Design (DIGD) | 288 | Health Studies (HST) | 318 |
| Digital Design Media (CIDD) | 290 | Health Studies (Online) (HSTX) | 318 |
| Directed Learning (DRLN) | 290 | Healthcare Management Info Sys (HMIS) | 318 |
| Drawing (DRAW) | 290 | Healthcare Quality & Safety (HQS) | 319 |
| Economics (ECON) | 290 | History (HIST) | 319 |
| Economics (Online) (ECNX) | 291 | History (Online) (HISX) | 319 |
| Education (EDUC) | 291 | Honors (HONR) | 319 |
| Electives (ELEC) | 291 | Human Resources (HRM) | 320 |
| Emergency Medical Services (EMS) | 293 | Human Resources (Online) (HRMX) | 321 |
| Engineering (ENGR) | 293 | Humanities (HUMN) | 322 |
| English (ENGL) | 296 | Humanities (Online) (HUMX) | 323 |
| English (Online) (ENGX) | 296 | Industrial Design (INDD) | 323 |
| English as Second Language (ESL) | 297 | Industrial Engineering (IENG) | 326 |
| Ethics (ETHC) | 297 | Information Systems (INFO) | 327 |
| Exercise Science (EXSC) | 297 | Information Technology (IT) | 327 |
| Fashion Design (FASD) | 300 | Information Technology-Online (ITX) | 329 |
| Fashion Drawing (FASR) | 303 | Integrative Seminar (ISEM) | 330 |
| Fashion Management (FASM) | 303 | Interdepartmental (MD) (IDPT) | 333 |
| Finance (FIN) | 305 | Interdisciplinary (IDSC) | 333 |
| Finance (Online) (FINX) | 306 | Interdisciplinary Studies (INDS) | 334 |
| First Year Seminar (FYS) | 306 | Interior Decorating (CIND) | 334 |
| French (FREN) | 306 | Interior Design (INTD) | 334 |
| General Studies (GNST) | 307 | Internship (INTN) | 337 |
| Genetics (GE) | 307 | Intl Textual Analysis (TXIS) | 338 |
| German (GER) | 307 | Italian (ITAL) | 338 |
| Global Citizenship (GCIT) | 307 | Japanese (JAPN) | 338 |
| Global Diversity (GDIV) | 309 | Jr Sem (Integrative Prof Sem) (JINT) | 339 |
| Global Portfolio (GLOB) | 310 | Jr. Sem. Liberal Arts (JSLA) | 339 |
| Graphic Design (GRPH) | 310 | Knitting (KNIT) | 340 |
| Green Home Basics (CGHB) | 312 | Laboratory Sciences (LS) | 341 |
| Health (HLTH) | 312 | Language (LANG) | 342 |
| Health Administration (HLAD) | 312 | Law (LAW) | 342 |
| Health Care Administration (HCA) | 312 | Law Enforcement (LAWE) | 344 |
| Health Care Administration ONL (HCAX) | 313 | Law Enforcement (Online) (LAWX) | 344 |
| Health Policy (MD) (HPOL) | 313 | Leadership & Homeland Security (LHS) | 344 |
| Health Sciences (HSC) | 313 | Leadership (LDSP) | 345 |
| Health Sciences (JCHP) (HSCI) | 313 | Leadership (Online) (LDSX) | 346 |
| Health Sciences (Online) (HSCX) | 316 | Legal Studies (Online) (LCSX) | 346 |
| Health Services (HLSV) | 316 | Literature (LIT) | 346 |

| | | | |
|--|-----|---|-----|
| Management (MGMT) | 346 | Political Science (POSC) | 373 |
| Management (Online) (MGTX) | 350 | Print Design (PRNT) | 373 |
| Management Of Info Systems (MIS) | 351 | Prior Learning Assessment (PLA) | 374 |
| Marketing (MKTG) | 351 | Professional Coursework (PROF) | 374 |
| Marketing (Online) (MKTX) | 353 | Psychology (Online) (PSYX) | 374 |
| Math (Online) (MATX) | 353 | Psychology (PSYC) | 374 |
| Mathematics (MATH) | 353 | Public Health (PUBH) | 379 |
| Mechanical Engineering (MENG) | 355 | Rad Sci Cardiac Sonography (RSCS) | 379 |
| Medical Assistant (MA) | 356 | Rad Sci Computed Tomography (RSC) | 380 |
| Medical Coding (CODP) | 356 | Rad Sci CT Certificate (RSCC) | 380 |
| Medical Lab Science (Online) (MLSO) | 357 | Rad Sci General Sonography (RSS) | 381 |
| Medical Laboratory Science (MLS) | 358 | Rad Sci Inv Cardiovasc Tech (RSI) | 382 |
| Medical Technology (MT) | 360 | Rad Sci Magnetic Resonance (RSM) | 382 |
| Medical Technology Adv Plc (MTAP) | 362 | Rad Sci Medical Dosimetry (RSD) | 383 |
| Mgmt of Info Systems (Online) (MISX) | 362 | Rad Sci Nuclear Medicine (RSN) | 384 |
| Midwifery (MIDW) | 362 | Rad Sci PET/CT (RSPC) | 385 |
| Minor Course (MINR) | 362 | Rad Sci Radiation Therapy (RST) | 385 |
| Molecular Biology (MB) | 362 | Rad Sci Radiography (RSR) | 386 |
| Music (MUSC) | 362 | Rad Sci Vascular Technology (RSV) | 387 |
| Music (Online) (MUSX) | 362 | Radiologic Science (RS) | 389 |
| National Student Exchange (NSE) | 362 | Respiratory Therapy (RESP) | 389 |
| Neuroscience (NS) | 362 | Science (SCI) | 390 |
| Nursing (NU) | 363 | SDE Interdisciplinary Courses (SDE) | 392 |
| Nutrition (NUTR) | 365 | Service (SERV) | 393 |
| Nutrition (Online) (NUTX) | 365 | Social Sciences (SOSC) | 393 |
| Occupational Therapy (OT) | 365 | Sociology (Online) (SOCX) | 393 |
| Occupational Therapy Assistant (OTA) | 366 | Sociology (SOC) | 393 |
| Occupational Therapy Certifica (OTC) | 367 | Spanish (SPAN) | 394 |
| Operational Excellence (OPX) | 368 | Special Topics in Design (DSGN) | 394 |
| Ota Fieldwork Workshop (COTF) | 368 | Statistics (Online) (STAX) | 394 |
| Pharmacology (MD) (PHAR) | 368 | Statistics (STAT) | 394 |
| Philosophy (Online) (PHLX) | 368 | Sustainability (SUST) | 395 |
| Philosophy (PHIL) | 368 | Telehealth (TELH) | 397 |
| Photography (POTO) | 369 | Test Subject Title (TEST) | 397 |
| Physical Therapy (PT) | 370 | Textile (TEXT) | 397 |
| Physician Assistant (PAST) | 371 | Textile Chemistry (TEXC) | 400 |
| Physics (Online) (PHYX) | 372 | Textile Engineering (TENG) | 400 |
| Physics (P4) (PHY) | 372 | Textual Analysis (ITXA) | 400 |
| Physics (PHYC) | 372 | Visual Studies Design (VDES) | 400 |
| Physiology (MD) (PHYS) | 373 | Visual Studies Drawing (VDRW) | 400 |
| Placement Math (PLMA) | 373 | Weaving (WEAV) | 401 |
| Placement Writing (PLWR) | 373 | Writing (WRIT) | 401 |

| | | | |
|---|-----|---|-----|
| Graduate | 403 | Graduate Center (GC) | 447 |
| Anatomy (ANAT) | 405 | Graduate Internship (GRIN) | 451 |
| Applied Health Economics (AHE) | 405 | Health Administration (HLAD) | 451 |
| Architecture & Design Research (ADR) | 406 | Health Care Education (MSED) | 451 |
| Athletic Training (ATP) | 407 | Health Communication Design (HCMD) | 451 |
| Basic Medical Science (BMS) | 410 | Health Data Science (HDS) | 451 |
| Biochemistry & Mol Biol-PhD MS (BI) | 410 | Health Policy (JCPH) (HPL) | 451 |
| Biology (BIOL) | 411 | Health Professions Studies (HPS) | 452 |
| Bioprocessing (BP) | 411 | Health Sci Pop Health (JCPH) (DHS) | 453 |
| Biotechnology (BT) | 412 | Health Sciences (JCHP) (HSCI) | 453 |
| CAD Foundation (CADF) | 413 | Healthcare Quality & Safety (HQS) | 453 |
| Cannabinoid Chem & Tox (CCT) | 413 | Historic Preservation (MHP) | 454 |
| Cannabinoid Pharmacology (CPY) | 413 | Human Genetics (HG) | 456 |
| Cannabis & Society (CSO) | 413 | IMBA Online Program Foundation (IMFX) | 457 |
| Cannabis Business (CBU) | 413 | IMBA Program Foundation Course (IMBF) | 458 |
| Cannabis Medicine (CMD) | 414 | Immunology & Microbial Patho (IMP) | 458 |
| Cannabis Research (CRS) | 414 | Immunology (IM) | 459 |
| Cannabis Science (CSC) | 414 | Industrial /Interactive Dsgn Foundation (IDF) | 460 |
| Cell and Tissue Engineering (TE) | 414 | Industrial Design (INDD) | 461 |
| Cell Biology (CB) | 414 | Innovator MBA (IMBA) | 462 |
| Chemistry (CHEM) | 415 | Innovator MBA Online (IMBX) | 466 |
| Chronic Care Management (CCM) | 415 | Integrative Health Education (IHE) | 470 |
| Clinical Research (CR) | 415 | Integrative Nutrition (IN) | 470 |
| Communications (COMM) | 416 | Interactive Digital Design (IDD) | 470 |
| Community & Trauma Counseling (CTC) | 416 | Interdepartmental (MD) (IDPT) | 472 |
| Construction Management (CMGT) | 423 | Interdisciplinary (IDSC) | 472 |
| Couple and Family Therapy (CFTP) | 425 | Interior Architecture (IARC) | 472 |
| Cytotechnology (CT) | 426 | Interior Architecture Prep (IARP) | 474 |
| Developmental Biology (DB) | 426 | Interprofessional Education (IPE) | 475 |
| Digital Health (DIGH) | 427 | Jefferson Interprof. Education (CIPE) | 475 |
| Disaster Medicine Management (DMM) | 428 | JeffMD (JMD) | 475 |
| Diversity (DIVR) | 430 | Laboratory Sciences (LS) | 475 |
| Doctor Strategic Leadership (DSL) | 430 | Leadership (LDSP) | 477 |
| Emergency & Disaster Mgmt (EDM) | 432 | Management (MGMT) | 478 |
| Engineering (ENGR) | 435 | Medical Lab Science (Online) (MLSO) | 478 |
| Fashion Design Management (FDM) | 440 | Medical Laboratory Science (MLS) | 480 |
| Forensic Biology (FB) | 441 | Medical Physics (MEDP) | 481 |
| Forensic Toxicology (FT) | 442 | Medical Technology (MT) | 482 |
| Genetics (GE) | 443 | Medicine (MED) | 482 |
| Geodesign (GEOD) | 443 | Microbiology (JCLS) (MI) | 482 |
| Global Fashion Enter. Foundatn (GFEF) | 445 | Microbiology (MD) (MICR) | 484 |
| Global Fashion Enterprise (GFE) | 445 | Midwifery (MIDW) | 484 |

| | | | |
|--|-----|---|-----|
| Mind-Body Medicine (MBM) | 490 | Surface Imaging (MSSI) | 539 |
| National Student Exchange (NSE) | 490 | Sustainable Design (SDN) | 540 |
| Neuroscience (NS) | 490 | Tax (TAX) | 542 |
| Nursing (NU) | 491 | Textile (TEXT) | 543 |
| Nutrition (NUTR) | 496 | Textile Design (TXD) | 545 |
| Occupational Therapy (GR) (OCC) | 496 | Textile Foundation (TXF) | 547 |
| Occupational Therapy (OT) | 500 | Urban Design (GR) (MUD) | 548 |
| Operational Excellence (OPX) | 505 | Medical | 550 |
| PA Studies Foundation (PASF) | 506 | Anatomy (ANAT) | 551 |
| Pathology & Cell Biol (JCLS) (PA) | 506 | Anesthesiology (ANES) | 551 |
| Perfusion (PER) | 507 | Biochemistry (BIOC) | 551 |
| Pharmaceutical Sciences (PSCI) | 507 | Dermatology (DERM) | 552 |
| Pharmacology (JCLS) (PR) | 508 | Emergency Medicine (EMRG) | 552 |
| Pharmacology (MD) (PHAR) | 509 | Family Medicine (FMED) | 553 |
| Pharmacy (JCP) (PHRM) | 509 | Graduate Center (GC) | 555 |
| Physical Therapy (PT) | 513 | Health Policy (MD) (HPOL) | 555 |
| Physician Assistant (PAST) | 517 | Humanities (HUMN) | 555 |
| Physiology (JCLS) (PS) | 524 | Integrative Medicine (INT) | 555 |
| Population Health (POP) | 525 | Interdepartmental (MD) (IDPT) | 555 |
| Population Health Intelligence (PHI) | 526 | JeffMD (JMD) | 557 |
| Population Health Pharmacy (PHP) | 526 | Medicine (MED) | 561 |
| Population Health Sciences (PHS) | 527 | Microbiology (MD) (MICR) | 562 |
| Psychology (PSYC) | 527 | Neurology (NEUR) | 562 |
| Public Health (JCLS) (PH) | 527 | Neurosurgery (NSRG) | 563 |
| Public Health (JCPH) (PBH) | 528 | Obstetrics-Gynecology (OBGY) | 563 |
| Rad Sci Cardiac Sonography (RSCS) | 530 | Ophthalmology (OPHT) | 564 |
| Rad Sci Computed Tomography (RSC) | 530 | Oral & Maxillofacial Surgery (OMFS) | 564 |
| Rad Sci CT Certificate (RSCC) | 531 | Orthopedic Surgery (ORTH) | 564 |
| Rad Sci Inv Cardiovasc Tech (RSI) | 531 | Otolaryngology (OTOL) | 565 |
| Rad Sci Medical Dosimetry (RSD) | 532 | Pathology (MD) (PATH) | 565 |
| Rad Sci Nuclear Medicine (RSN) | 532 | Pediatrics (PED) | 566 |
| Rad Sci PET/CT (RSPC) | 532 | Pharmacology (MD) (PHAR) | 567 |
| Rad Sci Vascular Technology (RSV) | 532 | Physiology (MD) (PHYS) | 567 |
| Radiologic Science (RS) | 532 | Psychiatry & Human Behavior (PSYH) | 568 |
| Real Estate (MRE) | 533 | Radiation,Oncology,Nuclear Med (RONM) | 569 |
| Reg Dietitian Nutritionist (RDN) | 535 | Radiology (RAD) | 569 |
| Rehabilitation Sciences (JCRS) | 536 | Rehabilitation (RHAB) | 570 |
| SDE Interdisciplinary Courses (SDE) | 536 | SKMC - Away Rotation (AWAY) | 570 |
| Social Justice (SCJU) | 537 | SKMC LIC (LIC) | 570 |
| Special Topics in Design (DSGN) | 537 | Surgery (SURG) | 570 |
| Speech-Language Pathology (SLP) | 537 | Urology (UROL) | 571 |
| Stat Analysis Software (CSAS) | 538 | Vacation (VACA) | 572 |

| | | | |
|---|-----|--|-----|
| Minors | 573 | Real Estate Development Minor | 585 |
| Accounting Minor | 573 | Spanish Minor | 586 |
| Animation & Digital Media Minor | 573 | Sports Management Minor | 586 |
| Applied Business Analytics Minor | 573 | Sustainable Design Minor | 586 |
| Architecture History and Theory Minor | 574 | Textile Design Minor | 586 |
| Building Technology Minor | 574 | Textile Product Science Minor | 587 |
| Business Minor | 575 | Urban Design Minor | 587 |
| Business of Healthcare Minor | 575 | Visual Studies | 587 |
| Communication Minor | 575 | Web Design Minor (For Non-Visual Communication Students) ... | 587 |
| Computational Design Minor | 575 | Web Design Minor (For Visual Studies Students) | 588 |
| Construction Management Minor | 575 | Index | 589 |
| Custom Minor | 576 | | |
| Diversity Studies Minor | 576 | | |
| Entrepreneurship Minor | 576 | | |
| Environmental Studies & Sustainability Minor | 577 | | |
| Exercise Science Minor | 577 | | |
| Fashion Merchandising and Management Minor | 578 | | |
| Finance Minor | 578 | | |
| Gender & Health Studies Minor | 578 | | |
| Genetics Minor | 578 | | |
| Geographic Information Systems Minor | 579 | | |
| Global Studies Minor | 579 | | |
| Graphic Design Minor (Animation & Digital Students) | 579 | | |
| Graphic Design Minor (Design Majors) | 580 | | |
| Graphic Design Minor (Non-Design Students) | 580 | | |
| Historic Preservation Minor | 580 | | |
| Interior Design Minor | 581 | | |
| International Business Minor | 581 | | |
| Landscape Architecture Minor | 581 | | |
| Landscape Design Minor | 582 | | |
| Landscape Planning Minor | 582 | | |
| Law and Society Minor | 582 | | |
| Management Minor | 583 | | |
| Marketing Minor | 583 | | |
| Medical Spanish Minor | 583 | | |
| Multimedia & Visualization Minor | 584 | | |
| Photography Minor | 584 | | |
| Pre-MBA Minor (For Business Students) | 584 | | |
| Pre-MBA Minor (Non-Business) | 584 | | |
| Professional and Strategic Writing | 585 | | |
| Psychology Minor | 585 | | |
| Public Health | 585 | | |

HOME

- College of Architecture & The Built Environment (CABE)
- College of Health Professions (JCHP)
- College of Humanities & Sciences (JCHS)
- College of Life Sciences (JCLS)
- College of Nursing (JCN)
- College of Pharmacy (JCP)
- College of Population Health (JCPH)
- College of Rehabilitation Sciences (JCRS)
- Continuing & Professional Studies (CPS)
- Kanbar College of Design, Engineering & Commerce (KANBAR)
- Sidney Kimmel Medical College (SKMC)

WELCOME TO THOMAS JEFFERSON UNIVERSITY

This document provides information about the academic programs, degree offerings and requirements at all campuses of Thomas Jefferson University.

The programs, policies, procedures, requirements, tuition and fees described in this catalog are subject to change without notice, at the discretion of the University. Students are ultimately responsible for their own progress toward graduation; they are expected to use the academic catalog as a reference handbook and to familiarize themselves with the principal policies and procedures contained therein. The provisions of this catalog are not and may not be regarded as contractual between or among the University, its students or its employees or agents.

- University Structure & Leadership (<https://catalog.jefferson.edu/welcome-thomas-jefferson-university/university-structure-leadership/>)
- University Mission (<https://catalog.jefferson.edu/welcome-thomas-jefferson-university/university-mission/>)
- Commitment to Diversity & Equity (<https://catalog.jefferson.edu/welcome-thomas-jefferson-university/commitment-diversity-equity/>)
- Title IX (<https://catalog.jefferson.edu/welcome-thomas-jefferson-university/title-ix-thomas-jefferson-university/>)
- Accreditation (<https://catalog.jefferson.edu/welcome-thomas-jefferson-university/accreditations/>)
- Brief History of the University (<https://catalog.jefferson.edu/welcome-thomas-jefferson-university/brief-history-university/>)
- Campus Locations (<https://catalog.jefferson.edu/welcome-thomas-jefferson-university/campus-locations/>)
- Academic Calendars (<https://catalog.jefferson.edu/welcome-thomas-jefferson-university/academic-calendars/>)
- Admissions (<https://catalog.jefferson.edu/welcome-thomas-jefferson-university/admissions/>)
- Tuition & Fees (<https://catalog.jefferson.edu/welcome-thomas-jefferson-university/tuition-fees/>)
- Financial Aid (<https://catalog.jefferson.edu/welcome-thomas-jefferson-university/financial-aid/>)
- Veteran's Administration (<https://catalog.jefferson.edu/welcome-thomas-jefferson-university/veterans-administration/>)
- Undergraduate Degree Components (<https://catalog.jefferson.edu/welcome-thomas-jefferson-university/undergraduate-academic-program-goals-outcomes-components/>)
- Honors Institute (<https://catalog.jefferson.edu/welcome-thomas-jefferson-university/honors-institute/>)
- Internship (<https://catalog.jefferson.edu/welcome-thomas-jefferson-university/internship/>)

University Structure & Leadership

University Provost

Dr. Matt Baker is the Chief Academic Officer of Thomas Jefferson University, responsible for programming and policy implementation, support programs for personnel and students, and academic fiscal management.

On behalf of the faculty and staff of the university, I welcome and invite you to explore this catalog of more than 250 undergraduate, graduate, and certificate professions-focused academic majors. **We thank you for selecting Thomas Jefferson University to pursue your professional and career development and we are here to offer guidance and support throughout your journey.**

University Mission

We Improve Lives.

Thomas Jefferson University is a national leader in professional education, preparing students for the future of work, while also engaging in groundbreaking research and creative discovery. Dedicated to inclusive and experiential learning, Jefferson fosters transdisciplinary collaboration, embraces social responsibility, and celebrates the value of diverse identities and perspectives.

Commitment to Diversity & Equity

Thomas Jefferson University does not discriminate on any condition of ethnicity or ancestry, or on the basis of creed, race, color, sex, age, religion, national origin, marital status, sexual orientation or disability in its admissions, education programs, activities or employment practices. This policy is in accordance with state and federal laws, including Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990.

We are reimagining diversity and inclusion to promote and cultivate an inclusive environment that celebrates the differences and similarities of our patients, families, students, workforce and the communities we serve to achieve an equitable culture.

website: Diversity, Inclusion & Community Engagement (<https://diversity.jefferson.edu/>)

Title IX

Title IX of the U.S. Education Amendments of 1972 ("Title IX") is a federal civil rights law that prohibits discrimination on the basis of sex in education programs and activities. Thomas Jefferson University does not discriminate on the basis of sex in the education programs or activities that it operates, including admissions and employment.

Under Title IX, discrimination on the basis of sex can also include sexual harassment which is defined as conduct on the basis of sex that satisfies one or more of the following:

1. An employee of the College conditioning the provision of education benefits on participation in unwelcome sexual conduct (i.e., quid pro quo); or

2. Unwelcome conduct that a reasonable person would determine is so severe, pervasive, and objectively offensive that it effectively denies a person equal access to the institution's education program or activity; or
3. Sexual assault (as defined in the Clery Act), dating violence, domestic violence, or stalking as defined in the Violence Against Women Act (VAWA).

Any person may report sex discrimination, including sexual harassment (whether or not the person reporting is the person alleged to be the victim of conduct that could constitute sex discrimination or sexual harassment), in person, by mail, by telephone, or by electronic mail, using the contact information listed for the Title IX Coordinator, or by any other means that results in the Title IX Coordinator receiving the person's verbal or written report. Such a report may be made at any time (including during non-business hours) by using the telephone number, electronic mail address, or by mail to the office address listed for the Title IX Coordinator. The following person has been designated to handle inquiries regarding sex and gender-based non-discrimination policies:

Katie Colgan Vodzak, J.D., Title IX Coordinator
4201 Henry Avenue
Archer Hall 200
Philadelphia, PA, 19144
215-951-2520
titleix@jefferson.edu (titleix@jefferson.edu)

Thomas Jefferson University's Sex and Gender-Based Misconduct Policy can be accessed via the website (https://www.jefferson.edu/life-at-jefferson/student-resources-services/academics-career-success/title-ix-sexual-misconduct.html?utm_source=jefferson&utm_medium=vanity) and provides information on the University's grievance procedures and process, including how to report or file a complaint of sex discrimination, how to report or file a formal complaint of sexual harassment, and how the University will respond.

Inquiries about the application of Title IX to the University may be referred the Title IX Coordinator, to the Assistant Secretary, or both. The Assistant Secretary's contact information is:

U.S. Department of Education
Office of Postsecondary Education
400 Maryland Avenue, S.W.
Washington, DC 20202
Telephone: 202-453-6914

Accreditations

Thomas Jefferson University (TJU) maintains full accreditation from the regional accrediting agency, Middle States Commission on Higher Education, and approval and licensure from all applicable federal, state, and national agencies.

| Agency | Contact Information |
|---|--|
| Middle States Commission on Higher Education (MSCHE) , http://www.msche.org | 3624 Market Street, 2nd Floor West Philadelphia, PA 19104; Telephone: (267) 284-5000; E-mail: info@msche.org Spanish: Espanolinfo@msche.org |

| Agency | Contact Information |
|--|---|
| US Department of Education , https://feedback.studentaid.ed.gov | 400 Maryland Avenue, SW Washington, D.C. 20202; Telephone: (800) 872-5327 |
| Commonwealth of Pennsylvania Department of Education , http://www.education.pa.gov/ | 333 Market Street Harrisburg, PA 17126- 0333; Telephone: (717) 783-6788 |
| Pennsylvania State Authorization Reciprocity Agreement (SARA Distance Education State Portal) , http://www.nc-sara.org | Gina Wetten Higher Education Associate II Department of Education Division of Higher and Career Education; 333 Market Street Harrisburg, PA 17126; Telephone: (717) 265-7723; Email: giwetten@pa.gov |
| State of New Jersey Office of the Secretary of Higher Education , https://www.state.nj.us/highereducation (https://www.state.nj.us/highereducation/) | Trenton, NJ 08625-0542; Telephone: (609) 292-4310; Email: oshe@oshe.nj.gov ; Note: Physician Assistant Program Only |
| National Collegiate Athletic Association (NCAA) , www.NCAA.org (http://www.NCAA.org) | Indianapolis, IN; Telephone: (317) 917-6222 |
| Central Atlantic Collegiate Conference (CACC) , www.caccathletics.org (http://www.caccathletics.org) | P.O. Box 3575 New Haven, CT 06525; Telephone: 203.298.4806 |
| Association for Assessment and Accreditation of Laboratory Animal Care , www.aaalac.org (http://www.aaalac.org) | 5205 Chairman's Court, Suite 300 Frederick, MD 21703; 301.696.9626 |
| Association for the Accreditation of Human Research Protection Programs (AAHRPPP) , www.aahrpp.org (http://www.aahrpp.org) | 5335 Wisconsin Avenue NW Suite 510 Washington, DC 20015; 202.783.1112 |

College and programmatic accreditations are identified on the Consumer Information website (<https://www.jefferson.edu/about/consumer-information-disclosures.html>)

A Brief History of the University

Unifying two renowned legacies of innovation, education, research and professional excellence, Jefferson (Philadelphia University + Thomas Jefferson University) has more than three combined centuries of history. Driven by this newly united and robust past, Jefferson delivers unique and high-impact professional education to our students in the areas of architecture, business, design, engineering, fashion, health, humanities, medicine, science and textiles.

Philadelphia University

Philadelphia University's roots trace back to the 1876 Centennial Exposition, when local textile manufacturers noticed that Philadelphia's textile industry trailed its rivals' capacity, technology and ability. In 1880, they formed the Philadelphia Association of Manufacturers of Textile Fabrics, with Theodore C. Search as its president. Search joined the board of directors of the Philadelphia Museum and School of Industrial Art (now the Philadelphia Museum of Art and the University of the Arts), thinking it the perfect partner for his plans for a school,

and began fundraising in 1882. In early 1884, Search taught the first classes at the Philadelphia Textile School, which officially opened on November 5, 1884. In 1942, the Philadelphia Textile School was granted the right to award baccalaureate degrees and changed its name to the Philadelphia Textile Institute (PTI). In 1949, PTI moved to its present site in the East Falls section of Philadelphia, and in 1961, changed its name to Philadelphia College of Textiles and Science. The College's student population doubled between 1954 and 1964, and doubled again by 1978, with the addition of programs in the arts, sciences and business administration. In 1976, Philadelphia College of Textiles and Science offered its first graduate degree, the Master of Business Administration, and to better reflect the institution's breadth and depth, it applied for and was granted university status by the Commonwealth of Pennsylvania in 1999. It changed its name to Philadelphia University on July 13, 1999.

Thomas Jefferson University

Founded in 1824 as Jefferson Medical College, Thomas Jefferson University is a story that includes intrigue, innovation and boldness, with the lead played by Dr. George McClellan. A prominent Philadelphia physician, Dr. McClellan believed in teaching medical students by having them observe experienced doctors treating patients and participate in supervised, hands-on care. His belief was the spur that created Jefferson Medical College and reshaped the way medicine would be taught nationally. In 1877, Thomas Jefferson University Hospital was established and Jefferson Medical College became the second medical school in the country with a separate teaching hospital. Joining Jefferson Medical College in 1891 was the Jefferson Hospital Training College for Nurses and in 1967 the College of Allied Health Sciences. The University was officially established in 1969, the same year the College of Graduate Studies was opened (now known as the College of Biomedical Sciences). In 1991, the NCI-designated Sidney Kimmel Cancer Center was established, thanks to a groundbreaking gift from the Sidney Kimmel Foundation, and in 2006, the University had renamed and added the Schools of Nursing and Health Professions. Two years later, the Schools of Pharmacy and Population Health were formed. In 2014, the Sidney Kimmel Foundation bestowed a \$110 million gift to Jefferson – the largest gift in its history – and Jefferson Medical College became Sidney Kimmel Medical College at Thomas Jefferson University.

The University Today

The new Jefferson was established on July 1, 2017, as a result of the merger of these two renowned universities. Through a shared and unique approach to education, Jefferson is nationally and internationally recognized for many historical "firsts" including the first surgical use of anesthesia in Philadelphia; the blending of quail feathers and wool to create the Army's ubiquitous olive drab as an alternative to dark blue and light-colored khaki military uniforms; the first successful open-heart operation using a heart-lung machine; and the first bifurcated aortal graft using knit fibers needed for artificial blood vessels. Today, we are a professional university that defies convention and dedicates itself to collaborative, transdisciplinary and inter-professional approaches to learning that offers a vibrant and expandable platform for education. Through this unique model, we are preparing our students for current and yet-to-be-imagined careers setting tomorrow's standards by breaking today's.

Campus Locations

Our campuses are incubators, tradition breakers and beautiful places to learn.

We cross the city and the suburbs. From our vibrant Center City campus to our East Falls grounds and beyond, each location offers a unique learning environment to experience all that is Jefferson.

Center City Campus Philadelphia, PA

Located in the heart of Philadelphia our main campus is home to the Sidney Kimmel Medical College, one of the largest private medical colleges in the nation. The campus occupies 13 acres of academic, research, administrative, and recreational buildings from 8th to 11th Streets and between Market to Locust Streets. Our 14 affiliated hospitals along with its clinical partners annually treats nearly 126,000 inpatients and 1.3 million outpatients.

Jefferson Center City active student learning sites include the **Dr. Robert and Dorothy Rector Clinical Skills and Simulation Center**, which boasts over 60,000 sq. ft. of learning and teaching space. The Center has over 130 standardized and simulated patients, 28 exam rooms and 8 control rooms with digital recording systems and videoconferencing. An additional 3,000 sq. ft. is used for pharmacy simulation. **The Scott Memorial Library** has one of the region's best collections of life sciences publications — with more than 220,000 books and bound print journals, and over 6,000 electronic journal subscriptions.

In addition to academic resources, our students can join in on one of the many activities offered by the University, sample the local cuisine, explore the historical district where our country started or relax in one of the many scenic locations around the city. Jefferson's Center City Campus offers three residential living options, a multi-purpose fitness & recreation center (cardio, sauna, group exercise, racquet courts, swimming pool) and easy access to public transportation.

East Falls Campus Philadelphia, PA

The 100 acre, 50+ building campus is located close to beautiful countryside, urban life, concert venues, galleries and museums, great restaurants and theaters. The tree-lined East Falls Campus is located on the edge of Philadelphia's Fairmount Park in the beautiful residential area of East Falls, just 15 minutes from historic Center City Philadelphia.

The Gallagher Athletic, Recreation and Convocation Center is home to three regulation-size basketball courts, a state-of-the-art fitness center, aerobics studio, a racquetball court and an elevated jogging track, as well as a 251-space underground parking garage. In addition, athletic facilities on campus include a baseball field, softball field, tennis courts, and soccer and lacrosse fields. **The Kanbar Campus Center**, a 72,000-square-foot social hub for the campus community makes a dramatic impact on the academic and social environment for all members of the University community. Most undergraduate students live in on-campus housing with accommodations for over 1,600 students and include co-ed and single-sex residence halls, townhouses and two- or three-bedroom apartments.

Dixon Campus, College of Nursing Horsham, PA

Thanks to a generous gift from community volunteer and philanthropist Edith R. Dixon, Thomas Jefferson University College of Nursing’s Abington-Dixon campus located in Horsham, PA is known as the Dixon Campus.

At 42,000 square feet, nearly one third of the space is dedicated to a state-of-the-art simulation center, where both undergraduate and graduate students will engage in complex clinical scenarios that parallel, anticipate and amplify real-life situations. The new campus also includes a 200-person tiered lecture hall and three 80-seat classrooms that will support the latest innovations in academic technology. A dedicated library, collaborative learning and study spaces, a student lounge and a central concourse will support faculty-student and student-student engagement at the highest level. Students also have access to a trail leading to a park, a gym conveniently located in the building next door, a cafeteria, ample parking and public transportation.

Spring House Campus, Jefferson Institute for Bioprocessing Lower Gwynedd, PA

JIB is a 25,000 sq. ft. fully closed-processing, CNC, GMP-simulated pilot scale and process development facility. The facility houses ready-to-use technologies in fully flexible, ballroom design suites. Our processing suites feature a full range of pilot-scale upstream and downstream equipment, QC analytical, digital (AI/AR/VR) technologies, scale-down modeling, process simulation, process measurements, instrumentation, calibration, automation and process control capabilities.

Online World-Class Education at Your Fingertips

Jefferson Online is a student-centered institution that prepares graduates for successful careers in an evolving global marketplace. To learn more visit Jefferson Online (<https://www.jefferson.edu/academics/jefferson-online.html>)

Voorhees Campus, Physician Assistant Program Voorhees, NJ

The College of Health Professions opened this training facility in September, 2019 and houses a 60-seat classroom, a physical diagnoses laboratory, and a Simulation Center (Auscultation Simulators, iStan Adult Patient Simulator, Primary Care Rooms, Emergency Room Bays, and Inpatient Hospital Rooms).

This new location offers cutting edge technology and a beautiful space for our faculty to cultivate the next generation of healthcare providers.

Jefferson’s College Locations

| Academic Unit | Abbreviation | Campus & Program Location(s) |
|---|--------------|------------------------------|
| College of Architecture & Built Environment | CABE | East Falls, Online |

| Academic Unit | Abbreviation | Campus & Program Location(s) |
|--|--------------|----------------------------------|
| Kanbar College of Design, Engineering & Commerce | KANBAR | East Falls, Spring House, Online |
| College of Health Professions | JCHP | Center City, East Falls, Online |
| College of Humanities & Sciences | JCHS | East Falls |
| College of Life Sciences | JCLS | Center City, East Falls, Online |
| Sidney Kimmel Medical College | SKMC | Center City |
| College of Nursing | JCN | Center City, Horsham |
| College of Pharmacy | JCP | Center City, Online |
| College of Population Health | JCPH | Center City, Online |
| College of Rehabilitation Sciences | JCRS | Center City, East Falls, Online |
| Continuing and Professional Studies | CPS | Center City, East Falls Online |
| Jefferson Institute for Bioprocessing | JIB | Spring House |
| Institute for Emerging Health Professions | IEHP | Center City, Online |

Academic Calendars

| Calendar Type | Description |
|------------------------------|---|
| University Calendar | The University operates within a calendar year that begins on July 01 and ends on June 30. |
| Academic Program Calendar | Academic Programs calendars are individualized to meet the needs of their programmatic requirements. |
| Academic Calendars found at: | https://www.jefferson.edu/registrar/academic-calendars.html |

Schedule Changes

The University reserves the right to make changes to the academic calendars as circumstances may require. Changing sections, replacing courses with another course, auditing a course, independent study, course-by-appointment, or changing a course from graded to credit/non-credit must be made by the “last day to add” deadline. See current Academic Calendar.

Absence & Observance of Religious Holidays

Jefferson is a nonsectarian educational institution and respects the diversity and religious needs of its affiliates. The University respects the rights of faculty, staff and students to observe religious holidays. While academic and personnel calendars do not incorporate religious holidays, the policy is intended to apply equitably to all religious groups and to provide opportunities to all to meet their religious obligations. Non-attendance of class on religious holidays by those observing the holiday will be excused without penalty. No adverse or prejudicial effects will result because a student availed herself or himself of these

provisions. The University respects students' rights to observe religious holidays. Students planning to be absent from a class due to religious observance shall notify the faculty during the first week of classes, if possible. Absence from classes or examinations for religious reasons does not relieve students from responsibility for any part of the course work required during the period of absence. Professors shall work with students to ensure they have a reasonable opportunity to make up missed classes and assignments.

Admissions

Students who apply to the University should be seeking a sound and challenging collegiate education, and should have demonstrated an ability to be successful in such a program by prior academic performance and preparation.

- Each student is reviewed individually and evaluated based on educational background, including course preparation and grades earned.
- Academic Programs have specific policies, which govern their admission criteria.

Admissions Application

- Find the information you need to apply to Jefferson by visiting the Admissions website at <https://www.jefferson.edu/admissions.html>

Academic Degree Options

| Academic Degree | Description |
|-----------------|--|
| Undergraduate | More than 80 programs all with a focus on collaboration and critical thought that challenges the way forward and opens up endless opportunities for the future. |
| Transfer | <p>Many (not all) programs allow students to continue/complete their undergraduate degree by transferring credits taken at other accredited universities toward a degree at Jefferson. Students seeking to transfer into the university must submit official transcripts from all colleges/universities attended as well as essay and one letter of recommendation. If a student has earned less than 30 college credits, an official secondary school record and SAT I or ACT scores are required. Some transfer students may be required to submit a portfolio for consideration.</p> <p>Some of our programs are designed specifically for transfer students only and do not accept students into the freshman class; Nursing is one example of a Transfer Program.</p> |

| Academic Degree | Description |
|------------------------------|---|
| Graduate | Education beyond the undergraduate degree with over 70 programs at the master's and doctoral degree levels. |
| Accelerated | <p>1. Accelerated degree programs allow for a pathway toward completion of two degrees (undergraduate/graduate) in less time than would take in completing each degree separately. Students must maintain program-specific requirements upon admission and throughout program to remain eligible for this pathway.</p> <p>2. CPS (Continuing & Professional Studies) offers accelerated terms designed to support adult students and working professionals who are looking to earn or complete a degree. Courses are offered in 8-week hybrid and online formats.</p> |
| Dual | A pathway to two degrees at the same level. The two degrees may be completed concurrently or consecutively. |
| Certificate (Transcriptable) | A credential issued by the University in recognition of the completion of a curriculum other than one leading to a degree. Courses are offered at the undergraduate or graduate level and all courses within the certificate should be able to be applied to completion of a degree (grade and time-frame dependent). |

Admissions Classifications

| Classification | Description |
|----------------|---|
| Applicant | Student is preparing application materials for admissions to a specific academic program. See program application requirements on Admissions website. |
| Acceptance | <p>Students who have met all admissions requirements with satisfactory performance as judged by the Admissions Committee are granted full acceptance.</p> <p>Acceptance into an Academic Program does not mean or guarantee acceptance into another academic program at the same or different level.</p> |

| Classification | Description |
|-------------------------|---|
| Probationary Acceptance | Students with academic performance and/or test scores below the normally acceptable levels but show potential to be successful in a graduate program may be granted probationary acceptance and students will be monitored closely by the program director to ensure fit for the academic rigor of the program. |
| Conditional Acceptance | Conditional acceptance may be granted to students who are missing some of their application materials but who otherwise meet admissions criteria. Conditional acceptance is limited to one semester, during which time the missing application materials must be submitted. |
| Non-Degree seeking | Courses taken under non-degree status may be applied to a degree program, but only after all admissions requirements are met and full acceptance is granted. |
| Readmission | See your program-specific policy on requirements of readmission in college handbook, university policies and consult with your Program Director. |

University Right to Withdraw Offer of Admission

1. Students planning to join Jefferson must notify the Office of Admissions should there be any substantial changes to their academic or disciplinary records between acceptance and matriculation. The University reserves the right to withdraw an offer of admission in the event that
2. A significant drop in academic performance
3. Failure to graduate from an accredited degree program
4. Misrepresentation of information in the application process
5. Behavior prior to enrolling that indicates a serious lack of judgement or integrity

Course/Program Format

Jefferson offers several delivery options for students based upon the program they are entering.

| Format | Description |
|-----------|---|
| On Campus | courses/program taken onsite (face-to-face) at one of our seven locations throughout the region |
| Online | courses/program taken either entirely online or with periodic on-campus "retreats" |
| Hybrid | courses/program are a combination of onsite (face-to-face) and online formats |

| Format | Description |
|---------------|---|
| Accelerated | courses at various lengths outside of the standard 15-week semester |
| Short Courses | Faculty-led short courses/ programs taken domestically or abroad. |

Tuition & Fees

Tuition and fee rates are contingent on the academic programs and current student status. Please select the applicable tuition and fees information below that corresponds to the tuition and fees in your academic program.

Students should consult their academic department to determine whether the academic year for their program includes additional (e.g. summer) terms. Students may be responsible for additional tuition and fees.

Tuition Rate Information

<https://www.jefferson.edu/tuition-and-financial-aid.html>

- **Invoices** are submitted in July and December for the next semester's charges and electronic statements may be accessed via BannerWeb using the TouchNet link.
- Students may add an **Authorized Payer** who will also be notified when a new statement is available.
- The University does not mail billing statements.
- **Refund Policy** can be found at <https://www.jefferson.edu/life-at-jefferson/handbooks/policies/undergraduate-policies/tuition-and-university-fees-refund.html>
- An individual's registration at Jefferson constitutes the student's agreement to make timely payment of all amounts due. Jefferson uses electronic means (email and the Internet) as a primary method of communication and providing billing, payment and enrollment services. By accepting Jefferson's offer of admission and enrolling in classes, each student accepts responsibility for paying all debts to the University, including tuition and fees, for which one is liable.

Credits and Status

| Programs | Details |
|-------------------------------|--|
| Undergraduate Programs | <ul style="list-style-type: none"> • For tuition and financial aid purposes, full-time refers to a student taking between 12-21 credits. • Part-time for financial aid purposes, refers to a student taking between 6- 11.5 credits. • Taking credits above or below this range will have financial and financial aid impact. |

| Programs | Details |
|----------|--|
| | <ul style="list-style-type: none"> Students are advised to consult with their Program Director/ Department Chair and Financial Aid office to discuss the implications of taking credits above or below the specified range. |

| | |
|--------------------------|--|
| Graduate Programs | <ul style="list-style-type: none"> For tuition and financial aid purposes, full-time status varies depending on the academic program with the majority at 9 credits. There are limited exceptions under which specified programs maintain alternative halftime and full-time credit status. |
|--------------------------|--|

| | |
|--|---|
| | <ul style="list-style-type: none"> Students are advised to consult with the Registrar's Office to discuss the appropriate credit minimum necessary for halftime enrollment. Halftime enrollment is one of the requirements to be eligible for financial aid. |
|--|---|

| | |
|--|--|
| | <ul style="list-style-type: none"> Students are advised to consult with the Financial Aid office to discuss the financial implications of taking full and part-time credits per semester. |
|--|--|

Statement of Financial Responsibility

An individual's registration as a Jefferson student constitutes his or her agreement to make timely payment of all amounts due. Jefferson uses electronic means (email and the Internet) as a primary method of communication and providing billing, payment and enrollment services. Signatures or acknowledgments provided by the student electronically to Jefferson via Jefferson systems and/or @students.PhilaU.edu, @mail.Philau.edu or @PhilaU.edu email is valid and legally binding. Additionally, by accepting Jefferson's offer of admission and enrolling in classes, each student accepts responsibility for paying all debts to the University, including tuition and fees, for which s/he is liable. Details of the University's billing policies are outlined on their website (under revision at time of catalog publication).

Tuition Refund Policy

The Following Tuition Refund Schedule Applies To

- A student who is enrolled in a standard 15-week semester, 12-week, accelerated or summer session of a minimum of 5-weeks who is charged tuition separately for each term in which they are enrolled during the academic year; and
- Who withdraws from the University; or
- Is dismissed from the University for academic reasons¹;

4. Who is granted a Leave of Absence from the University will be eligible for a refund of tuition according to the following schedule:

| Percent of Refund of Semester of Term Paid Tuition | Number of Days Enrolled |
|--|-------------------------|
| 100% | 0-7 calendar days |
| 75% | 8-14 calendar days |
| 50% | 15-21 calendar days |
| 25% | 22-28 calendar days |
| 0% | 29 calendar days |

The Following Tuition Refund Schedule Applies To

- A student who is enrolled
 - Continuously for at least 11 months who is charged two tuition payments to cover the entire period of enrollment for that academic year; or
 - In a term that includes both Pre-Fall and Fall terms in the Term Paid Tuition; or
 - In a term that includes both Spring and Summer in the Term Paid Tuition; and
- Who withdraws from the University; or
- Is Dismissed from the University for academic reasons¹; or
- Who is granted a Leave of Absence from the University will be eligible for a refund of tuition according to the following schedule:

| Percent of Refund of Annual Paid Tuition | Percent of Number of term calendar days enrolled divided by the total number of calendar days of the academic year enrollment period |
|--|--|
| 100% | Less than 10% |
| 90% | 10 – 19 % |
| 80% | 20 – 29% |
| 70% | 30 – 39% |
| 60% | 40 – 49% |
| 50% | 50 – 59% |
| 40% | 60 – 69% |
| 30% | 70 – 79% |
| 20% | 80 – 89% |
| 0% | 90% or more |

Title IV Federal Financial Aid Refund Policy

Please note, the above policy is for tuition refund purposes only. Additionally, students who are federal financial aid recipients (e.g., Federal Direct Subsidized and Unsubsidized Stafford Loan, Perkins Loan, Direct PLUS, Pell Grants, FSEOG Grants, Other Title IV aid) who withdraw, or otherwise cease to be enrolled before the end of a term will be subject to the federal Title IV Refund Policy. Title IV financial aid funds are awarded under the assumption that a student will attend for the entire period in which they are enrolled. When a student withdraws from all courses, stops attending, or enrolls for a less than halftime status, the eligibility for the full amount of Title IV aid may be forfeited. Therefore, a student may be eligible for a tuition refund under the University's Tuition Refund Policy and may also be subject to the Federal Title IV Refund Policy, which may require the return of applicable federal financial aid funds.

The University is required to recalculate federal financial aid eligibility for students who complete less than 60% of an enrollment period (based on the number of calendar days). Once the term has been 60% completed, the student is considered to have earned 100% of the Title IV funds.

Federal Title IV Refund

- **Financial Aid Office** <https://www.jefferson.edu/tuition-and-financial-aid/financial-aid-office/policies/tuition-and-university-fees-refund.html>
- **University Policy** <https://www.jefferson.edu/life-at-jefferson/handbooks/policies/undergraduate-policies/tuition-and-university-fees-refund.html> (<https://www.jefferson.edu/life-at-jefferson/handbooks/policies/undergraduate-policies/tuition-and-university-fees-refund.html>)

Refund Policies & Notices

| Type | Policy |
|-------------------------------------|---|
| Federal Financial Aid Policy | The University uses federal regulations to determine the refund of federal financial aid funds to the federal government. A copy of this federal refund calculation is available on the Financial Aid webpage or at the University's Financial Aid Office |
| Room & Board | Any student who withdraws or changes room and board status after the semester begins is obligated for a full semester's room charge. Changes to the board plan may be made during the first two weeks of the semester with no penalty. After that time, students will be billed in full for the board plan. |
| Effective Date of Withdraw | The effective date for calculating refunds will be the effective date indicated on the Notification of Student Leave of Absence/Withdrawal form. Failure to complete this withdrawal form results in an unofficial withdrawal. Refunds, transcripts and recommendations will be withheld by the University until this official form is received. It is also the student's responsibility to drop his/her classes through BannerWeb when s/he completes this form. |
| Student Dismissal | Students dismissed from the University or from the residence halls will receive the following refunds: Tuition based on the tuition refund policy above; Students are obligated for the full semester's room and board charges. |

| Type | Policy |
|---|--|
| Health Insurance | All matriculated students with any on-campus experience are required to have health insurance and must complete the enrollment/waiver process for each academic year. Exemptions: Students who satisfy one of the following criteria are exempt from the health insurance requirement and no action will be required: <ul style="list-style-type: none"> • If enrolled in a certificate program without a clinical or experiential component. • If enrolled in an online-only program without any on-campus presence or clinical or experiential component. |
| Withdraw and Leave of Absence Procedures | A student who wants to initiate leave of absence or withdrawal must complete either the Withdrawal form or the Leave of Absence form. These forms are available from the Registrar's Office or online at https://www.jefferson.edu/registrar/forms.html . A student is considered in attendance until one of these forms is completed and returned to the Registrar's Office and the student has been withdrawn from all of his/her classes. Students cannot drop all of their classes on BannerWeb. Students should contact the Registrar's Office to confirm all courses have been withdrawn and that their Withdrawal/Leave of Absence has been processed. Students are responsible for all charges until the date that the Withdrawal/Leave of Absence is processed in the Registrar's Office. Students are encouraged to follow up with the Student Accounts and Financial Aid offices to discuss the financial implication |

Financial Aid

We believe the cost of pursuing an education should never get in the way of turning your dreams into reality. We offer a variety of options and payment plans to make our University accessible to the students who will one day go on to disrupt industries, create new ones and shape a world that's ready for anything.

Please visit the Financial-aid office that pertains to your academic program to address question related to the following topics:

- Undergraduate Student Aid
- Graduate Student Aid
- Veterans Benefits
- International Student Aid
- Financial Aid Programs
- Application Process
- FAFSA Codes
- Aid Filing Deadlines
- Code of Conduct
- IRS Data Retrieval Tool
- Entrance/Exit Counseling
- How to Read your Financial Aid Package

Financial Aid Office: Center City

Location: Curtis Building, Suite 115

Phone: 215-955-2867

Email: Financial.Aid@jefferson.edu

Website (<https://www.jefferson.edu/tuition-and-financial-aid/financial-aid-office.html>)

Financial Aid Office: East Falls

Location: White Corners, First Floor

Phone: 215-951-2940

Email: Financial.Aid@jefferson.edu

Website (<https://www.jefferson.edu/tuition-and-financial-aid/financial-aid-office.html>)

Student Accounts: Center City

Location: 1101 Market Street, 29th Floor

Phone: (215) 503-7669

Email: Tuition.Office@jefferson.edu

Website (<https://www.jefferson.edu/tuition-and-financial-aid/student-accounts-office.html>)

Student Accounts: East Falls

Location: Archer Hall, First Floor

Phone: 215-951-5988

Email: Tuition.Office@jefferson.edu

Website (<https://www.jefferson.edu/tuition-and-financial-aid/student-accounts-office.html>)

Veterans' Administration

Thomas Jefferson University is an approved institution of higher learning in conjunction with Title 38 Veterans' Administration Education Benefits. Thomas Jefferson University ensures that it receives benefits to our Veterans Administration (VA)-eligible students by maintaining strict adherence to federal guidelines and regulations outlined by the VA. Biennially, with approval from the State Approving Agency (SAA), Thomas Jefferson University reviews its catalog and procedures to assure compliance with all associated entities of the VA and SAA. Below are the defined processes, and state and federally-mandated regulations that are required.

Per the 3679(e) compliance regulations from SAA and statutes lawfully outlined by the VA, the Thomas Jefferson University Course Catalog commits to the following: "As part of the Veterans Benefits and Transition Act of 2018, section 3679 of title 38, United States Code was

amended, and educational institution will be required to confirm their compliance with the requirements as outlined."

Per the Veteran Benefits and Transition Act of 2018, the University has developed a policy that defines the following regarding benefit recipients (please note: a Covered Individual is any individual who is entitled to educational assistance under Chapter 31, Vocational Rehabilitation (Veteran Readiness), or Chapter 33, Post-9/11 GI Bill benefits):

- Chapter 31 individuals with an approved Tungsten invoice and educational plan provided by their Veteran Readiness and Employment (VRE) counselor
- Chapter 33 individuals whose benefits cover their tuition and fees with 100% benefit eligibility in accordance with the Post-9/11 Bill's private institution's annual tuition and fees cap
- Chapter 33 individuals whose benefits cover their tuition and fees with 100% benefit eligibility, under provision and certainty that their tuition and fees will be covered by Yellow Ribbon benefits, including but not limited to any additional and verifiable financial aid source, in accordance with the Post-9/11 Bill's private institution's annual tuition and fees cap
- Chapter 33 individuals whose benefits cover their tuition and fees with partial (50% or greater, but less than 100%) benefit eligibility, including but not limited to any additional and verifiable financial aid source, in accordance with the Post-9/11 Bill's private institution's annual allotted tuition and fees cap

The University Policy also states that:

- The Chapter 31 student(s) utilizing the benefits must have proper authorization from their VRE counselor within 30 days before the start of the term, not to exceed the first day of the term
- The Chapter 33 student(s) utilizing the benefits must submit their Certificate of Eligibility or Statement of Benefits within 30 days before the start of the term, not to exceed the first day of the term
- Students of each covered benefit must submit a VA Enrollment Confirmation Form (VA-1999 Form equivalent) each semester that they intend to use their benefits within 30 days before the start of the term. This is to inform the School Certifying Official (SCO) of their written request to be certified.
- Students provide additional information necessary to the proper certification of enrollment by the educational institution (e.g., submitting mitigating circumstances for prior reasons the student was not able to maintain University academic policies in accordance with the Standards of Progress set by VA, a conscious change of enrollment by the student, or any life event that may impact a student's ability to attend classes)
- The school's ability to impose a fee if:
 - a. the student's entitlement has reached its end and/or applicable delimiting date, and there are no longer sufficient funds to cover tuition and fees; and/or
 - b. if the student does not have any other additional and verifiable financial aid source, and was delinquent in applying for such and doing so, with documented evidence they were advised to as per the Principles of Excellence; and/or
 - c. the student did not, in a timely fashion, submit the required documentation to be certified for the term as per the policy's required process.
- This is not to supersede the VA's federal law in Stat. 5370, subsection B, of the Veterans Benefits and Transition Act of 2018, that late

fees and denial of accesses of classes not be imposed due to delinquency of the school's inaction to certify benefits in a timely manner per the policy's required process.

- Thomas Jefferson University will not impose any penalty, including the assessment of late fees, the denial of access to classes, libraries, or other institutional facilities, or the requirement that a covered individual borrow additional funds, on any covered individual because of the individual's inability to meet his or her financial obligations to the institution due to the delayed disbursement funding from VA under chapter 31 or 33.

Department of Veteran Affairs: Principles of Excellence Statement

In accordance with Isakson and Roe Veterans Health Care and Benefits Improvement Act of 2020, Section 1018 requirement per the Department of Veteran Affairs, we duly uphold the Principles of Excellence set forth by the Department of Veteran Affairs with all statutes recognized:

- Providing students with a timely personalized Financial Aid Shopping Sheet covering the total cost of an education program
- Inform students who are eligible to receive Veterans education benefits of the availability and potential eligibility of Federal financial aid before packaging or arranging private student loans or alternative financing programs
- Avoid fraudulent and unduly aggressive recruiting or automatic renewal techniques (covered individuals must approve their enrollment in individual courses)
- Avoid misrepresentations or payment of incentive compensation
- Must fully disclose conditions or additional requirements, including training, experience, or examinations, required to obtain the license, certification, or approval for which the course of education is designed to provide preparation
- Provide to a covered individual enrolled in a course of education at the educational institution with information regarding the requirements to graduate from such course, including information regarding when required classes will be offered and a timeline to graduate
- Obtain the approval of the institution's accrediting agency for new courses or program offerings prior to enrolling students
- Maintain a policy to accommodate Service members and reservists readmitted to a program if they are temporarily unable to attend class or suspend their studies due to service requirements
- Designate a point of contact to provide academic and financial advising

Thomas Jefferson University will conduct an annual internal review to ensure that it complies with the policies and procedures, and that they are adequately and affirmatively published in the University Course Catalog.

GI Bill® is a registered trademark of the U.S. Department of Veterans Affairs (VA). More information about education benefits offered by VA is available at the official U.S. government Web site at <https://www.benefits.va.gov/gibill> (<https://www.benefits.va.gov/gibill/>)

Undergraduate Degree Components Concentration

A concentration allows for an in-depth exploration of a focused area within the scope of the student's major discipline. Concentrations are available for study by majors within the appropriate area only. Options for concentrations are specified by the academic program. Similarly, the number of credits required to complete the concentration as well as the sequence and selection of required and elective courses are determined by the program.

Creativity Core

The mission of Jefferson's Creativity Core Curriculum is to cultivate a confident and flexible student mindset through learning opportunities that explore individual and collaborative aptitude and equip students to yield novel and valuable results. The Creativity Core Curriculum has three components incorporated into the undergraduate student curriculum on the East Falls campus:

- **A Creativity Intensive Course**

Every major has a required course specific to the major that is designated as creativity intensive (CI). This course will help students to define creativity and creative practices in the context of a chosen discipline.

- **Creative Making Workshops**

Students will complete two Creative Making Workshops during their time at Jefferson: one in the First Year Seminar, and one in the Creativity Intensive course in their major. Creative Making Workshops are distinct experiences of 3–5 hours in length that provide students with the opportunity, materials, guidance and time to experiment in a risk-free environment in absence of expectations and deadlines. Workshop experiences require no prior topic knowledge, and student participation will result in the development of a unique artifact—whether tangible, digital, performative or conceptual. Topics for these workshops draw inspiration from a wide range of disciplines.

- **The Hallmarks Core Senior Touchstone Course**

The final course in the Hallmarks Core, "Philosophies of the Good Life," highlights the role that creativity plays in meaningful and successful lives. This course challenges students to use strategies like design thinking and reflective writing to imagine possible life and career paths, and to combine the wisdom of diverse cultures and thinkers into a personal vision of "the good life."

Designated Electives

Designated electives allow students to select a course from a pre-approved set of courses. Designated electives enable both freedom of choice with some degree of programmatic guidance.

General Electives

General Electives allow students to tailor their degree program to meet their personal interests and educational goals. Students who participate in an internship may apply these credits toward partial-completion of general elective requirements.

General Education

Study in the liberal arts and sciences encourages students to be integrative thinkers who build connections across disciplinary boundaries and within a wide range of knowledge. Through immersion in complex, real-world issues and studies in the humanities, social sciences, mathematics, and the natural and physical sciences, Jefferson prepares graduates who are well-read, well-spoken, worldly, flexible and adaptable—individuals who never stop learning and making connections in everything they do.

Goals, Learning Outcomes, Components

Our Curricula Seek

- To advance students' knowledge and abilities.
- To broaden students' ways of thinking.
- To enhance students' awareness of the ideas, practices and values of their own and other cultures.
- To prepare students to synthesize general and specialized knowledge and apply it to a full personal and professional life.

Assessing Student Learning

Jefferson is committed to providing excellent and innovative educational opportunities for all students. In order to maintain this quality and assure that students are learning all that they should, the University takes its responsibility for assessment seriously. The assessment of student learning occurs at all levels of the curriculum and is a central aspect of measuring institutional effectiveness. Learning outcomes are stated in the syllabus for each course and program, and student learning is assessed on a continuous basis at the course and program levels to ensure the continuous improvement of the curricula, programs and teaching, in order to increase student attainment. Students may be required to provide faculty with representative examples or copies of their work at various points in their curriculum in order for faculty to evaluate achievement of programmatic learning outcomes. All curricula at Jefferson combine theory and application, and offer integrative and active learning experiences for students. Assessment helps faculty understand how well students are achieving these outcomes, and reflects the commitment to the importance of learning through active engagement. Assessment helps to ensure that the University's programs meet the institutional learning outcomes.

Learning Outcomes

All Jefferson graduates will:

1. Apply broad and deep professional knowledge and skills
2. Synthesize disciplinary and Liberal Arts/Humanities understanding to formulate transdisciplinary approaches
3. Communicate effectively
4. Interpret, respect, and value local, global, and conceptual diversity
5. Act ethically in personal, professional, and civic spheres
6. Integrate theory and practice to guide research, scholarship, and creative endeavors
7. Integrate technology appropriately into professional practice

Hallmarks for General Education

Students who attend our East Falls undergraduate programs fulfill the Commonwealth of Pennsylvania's requirement for 40 credits of general education courses by completing the Hallmarks Core curriculum, which

is overseen by the College of Humanities and Sciences. Jefferson's customized approach to general education provides the scaffolding for undergraduate learning and organizes the Pennsylvania requirements to match the needs and interests of our pre-professional students, bringing all of the East Falls students together to share a common educational experience and to learn from one another's diverse perspectives.

Minors

A minor is a set of undergraduate courses that provides enhanced study in a particular subject area. Please refer to the minor section of this catalog.

Physical Education

PE 00 Varsity Athlete

Students who have participated on one of the University's 16 intercollegiate sports teams for one season will satisfy the requirement for this course and receive .05 credit. Students must register for this course in the semester they expect to receive the course credit. Students must register for two separate semesters of PE 00 Varsity Athlete and complete an intercollegiate season in each semester to receive full physical education credit. Note: There will be no retroactive credit or arrangement for students other than those in his/her graduating (last) semester. For any concerns contact the Associate Director of Athletics.

PE 02 Recreation and Wellness

Students participate in recreation and wellness activities offered through the Department of Athletics. Opportunities include participation in intramural sports, recreational courses in team and individual sports, and wellness courses such as yoga, stress management and tailored exercise programs.

- All activities must be validated by a representative from the Department of Athletics to earn credit.
- Students must register for the course at the beginning of the semester to receive course credit.
- All Students who register for two separate semesters of PE-02 and would receive 0.5 credits per 15 hours of pre-approved classes/ events/participation for each semester
- If a student is currently enrolled in the graduating semester of his/her senior year and needs a PE credit to make their total required credits for graduation, s/he must directly speak and have approval from the Director of Fitness and Wellness to move forward with any exceptions.
- If a student is in the graduating semester of his/her senior year and wants to take a 0.5 PE credit to make their total required credits for graduation, s/he will be expected to enroll for the class in his/her final semester.
- Physical education course options offer a variety of activities, including traditional instruction. PE options are PE 00 Varsity Athlete and/or PE 02 Recreation and Wellness.

Professional Studies

Strongly integrated with general education, the course of study in each professional major broadly prepares students to engage with the professional world and inquire about its political, economic and social contexts through the perspective of their practices. Professional studies provide the knowledge and skills to be successful in a profession and

to become lifelong learners who are able to adapt to the changing conditions and demands of their careers.

Service Learning

SERV 101 Serv Learning in Philadelphia, a one-credit course, provides an opportunity for students to contribute to and learn from Philadelphia, its neighborhoods and people. These experiences allow students to explore their interests and expand their knowledge through hands-on projects with a community outside of the University. Learning Outcomes for Service Learning Students who have completed SERV 101 Serv Learning in Philadelphia will:

- Develop a sense of responsibility and commitment toward public service and citizenship through critical reflection and action
- Improve their understanding of societal problems, which affect members of the Philadelphia area community and beyond
- Relate community service experiences and issues to assigned journal questions and readings
- Develop a commitment to full participation in the life of their communities
- Consider civic obligations as a professional to improve quality of life in communities

Specialization

A specialization allows for a thematic grouping of courses within the scope of the student's major discipline. Specializations are available for study by majors within the appropriate area only. Options for specializations are specified by the academic program. The number of credits, sequence and selection of courses required to complete the concentration are determined by the program.

Honors Institute

The Philadelphia University Honors Institute at Thomas Jefferson University provides substantive curricular and co-curricular experiences in general education, as well as professional and multi-disciplinary offerings, that enable academically high-achieving students to discover and pursue academic and pre-professional interests, as well as develop leadership skills within an intellectually dynamic and socially vibrant community.

The Honors Goals/Core values promote the development of:

- Curiosity to pursue your own **Questions**,
- Empathy to **Adapt** with respect to diverse perspectives,
- Confidence to **Act** and apply knowledge in real-world conditions, and
- Courage to **Contribute** ideas that make a difference.

Students in the Honors Institute are required to complete designated Honors courses in the Hallmarks Core and in the major, as well as co-curricular experiences fulfilling the Honors Cornerstones: Contribute, Act, Adapt, Question.

Through the Jefferson admission process, qualified students are selected to join the Honors Institute in one of three curricula based on their degree program:

- Distinguished Honors Scholar
 - The requirements for this designation include:
 - 5 honors designated courses in the Hallmarks Core:

| Code | Title | Credits |
|-----------|-----------------------------|---------|
| FYS 100H | Course FYS 100H Not Found | 3 |
| WRIT 201H | Writ Sem 2: Multimedia Comm | 3 |
| ETHC 201H | Course ETHC 201H Not Found | 3 |
| GCIS 300H | Course GCIS 300H Not Found | 3 |
| PHIL 499H | Course PHIL 499H Not Found | 3 |

- 4 honors specified courses in the major
- Documented co-curricular activity in each of the 4 Cornerstones (20 hours per Cornerstone)
- A student completing all of the above requirements and maintaining a minimum cumulative GPA of 3.25 will graduate with the Distinguished Honors Scholar designation

- Honors Scholar
 - This designation is available to students in 2+ programs such as Medical Imaging & Radiation Science and Medical Lab Sciences & Biotechnology
 - Curricular requirements include:
 - 3 designated courses in Hallmarks Core:

| Code | Title | Credits |
|-----------|-----------------------------|---------|
| FYS 100H | Course FYS 100H Not Found | 3 |
| WRIT 201H | Writ Sem 2: Multimedia Comm | 3 |
| ETHC 201 | Honors Moral Philosophy | 3 |

- 2 honors specified courses in the major:

| Code | Title | Credits |
|-----------|--|---------|
| HSCI 231H | Course HSCI 231H Not Found | 3 |
| HSCI 225 | Applied Statistics (with Honors Common Assignment) | 3 |
- Documented co-curricular activity in each of the 4 Cornerstones (20 hours per Cornerstone)
- A student completing all of the above requirements and maintaining a minimum cumulative GPA of 3.25 will graduate with the Honors Scholar designation

- Honors Associate
 - This designation is available to students in the 2+ Pre-Pharmacy program. The curricular requirements are:
 - 3 courses:

| Code | Title | Credits |
|-----------|-----------------------------|---------|
| FYS 100H | Course FYS 100H Not Found | 3 |
| WRIT 201H | Writ Sem 2: Multimedia Comm | 3 |
| ETHC 201H | Course ETHC 201H Not Found | 3 |

- Documented co-curricular activity in 2 co-curricular Cornerstones (20 hours per Cornerstone)
- A student completing all of the above requirements and maintaining a minimum cumulative GPA of 3.25 will graduate with the Honors Associate designation

The Honors Institute also offers an internal admission process for qualified students currently in their first year at Jefferson who are interested in joining the Honors Institute. In the spring semester of their first year, first-year students (excluding transfer students) who have achieved a first-semester GPA of at least 3.5 will be eligible to apply to the Honors Institute. Internal admission is not available to

transfer students or students in 2+2 programs. Students in 3+2 or other accelerated programs are advised to meet with an Honors Institute advisor to review the feasibility of completing the honors requirements prior to submittal of an application. Students who are internally admitted are required to follow the Honors Institute curriculum for internal admits.

Honors course offerings are listed each semester in the University's course schedule. Enrolled students must take the course for a letter grade. The pass/fail or CR/NC option is not available for Honors courses.

Enrollment in Honors courses is designated on the University transcript and remains part of the student's permanent academic record. Honors students' academic records are reviewed annually to assure that participants are making satisfactory academic progress in the Honors curriculum and maintaining a cumulative GPA of 3.25 or higher in order to remain in the Honors Institute.

Students successfully completing all Honors requirements with a GPA of 3.25 or higher receive special recognition at graduation, as well as the Honors Stole and Certificate. Distinguished Honors Scholars will also receive the Honors Institute Medallion. This minimum GPA applies to all current and incoming students.

For more information, see the Philadelphia University Honors Institute website (<https://www.jefferson.edu/east-falls/honors-institute.html>)

Internship

An internship is a form of experiential learning that integrates knowledge and theory learned in the classroom with practical application and skills development in a professional setting. Internships provide students with the opportunity to gain valuable applied experience and make connections in professional fields they are considering for career paths. All academic internships must meet the NACE criteria for an experience to be considered an internship (visit office homepage (<https://www.jefferson.edu/east-falls/career-services/internships.html>) for details.)

Academic internships are offered during the fall, spring and 12-week summer term, and are taken for credit as an elective with a course syllabus focused on professional skill-building and written assignments. The undergraduate internship course, INTN 493F Internship I, exists in 0.5, 3 or 6 credit options. Students may only enroll in an internship course during the semester of the internship experience; credit is not issued retroactively or for future experiences. Students may earn up to 6 credits of internships (fulfilling general elective credit in their curriculum).

While the primary emphasis of the course is on the internship work experience, course assignments are incorporated to prompt reflection on the internship. This reflection is an integral component of experiential learning and students' overall career and professional development. The Career Services Center and designated Faculty Internship Adviser (FIA) from the student's major provide support and guidance during the semester of participation. Career Services staff is also available to assist students with internship search strategy prior to the internship.

At the conclusion of the internship semester, students are evaluated by their employer and FIA, receiving a grade derived from successful performance as determined by the employer, the quality of academic assignments submitted to faculty, and completion of minimum required hours. All internships, regardless of credit registration, require a minimum of 12 weeks in length. The 0.5- and 3-credit internship

courses require a minimum of 144 hours per semester on site, and the 6-credit internship course requires a minimum of 288 hours per semester on site. All required hours and coursework must be completed within the semester dates for which the student is enrolled in the internship course.

Internship course registration may only occur once an offer has been received and accepted from the employer. Several steps are required in order to register, and the Registrar's Office ultimately enrolls each student in the internship course once all required paperwork is completed and submitted. The deadline to register for academic internships is the last day to add class for the semester of intended participation as established each semester by the Registrar's Office. (Refer to the academic calendar for specific dates.) Students are strongly encouraged to apply early and to contact Career Services for assistance, which provides the best success in finding an appropriate experience in time to meet registration deadlines. To learn more about the registration process, visit [t \(http://www.eastfalls.jefferson.edu/careerservices/Internships/InternshipsForCredit/\)](http://www.eastfalls.jefferson.edu/careerservices/Internships/InternshipsForCredit/)he website (<https://www.jefferson.edu/east-falls/career-services.html>)

Participation Requirements Include

- Completion of 60 credits by the start of the internship experience (90 credits for Architecture majors)
- 2.5 cumulative GPA in the semester preceding the internship
- **Transfer Students** must complete at least 15 credits earned at Jefferson prior to participation
- **International Students** must be eligible for Curricular Practical Training (CPT)

Campus Life

We invite you to participate in the extensive opportunities of campus Life and visit the Campus Life & Current Student Resources (<https://www.jefferson.edu/life-at-jefferson/campus-life-and-resources.html>)

ACADEMIC PROGRAMS

- Accelerated & Dual Degree Programs (p. 25)
- Certificate Programs (p. 27)
- Continuing & Professional Studies Programs (p. 30)

- Graduate Programs (p. 31)
- Undergraduate Programs (p. 35)

Accelerated & Dual Degree Programs

| Academic Program | Degree | Campus | Format | College |
|---|----------|--------------------------|-----------|--|
| Architectural Studies (BS) Architecture (MArch) 4+2 (p. 40) | BS/MArch | East Falls | On-Campus | Jefferson Coll of Architecture & Built Environment |
| Architectural Studies (BS) Historic Preservation (MS), Accelerated 4+1 (p. 40) | BS/MS | East Falls | On-Campus | Jefferson Coll of Architecture & Built Environment |
| Architectural Studies (BS) Interior Architecture (MS) 4+1 (p. 41) | BS/MS | East Falls | On-Campus | Jefferson Coll of Architecture & Built Environment |
| Architecture (BArch) Construction Management (MS) 5+1 (p. 42) | BArch/MS | East Falls | On-Campus | Jefferson Coll of Architecture & Built Environment |
| Architecture (BArch) Historic Preservation (MS) Accelerated 5+1 (p. 42) | BArch/MS | East Falls | On-Campus | Jefferson Coll of Architecture & Built Environment |
| Architecture (BArch) Interior Architecture (MS), 4+1 (p. 43) | BArch/MS | East Falls | On-Campus | Jefferson Coll of Architecture & Built Environment |
| Architecture (BArch) Real Estate Development (MS) 5+1 (p. 43) | BArch/MS | East Falls | On-Campus | Jefferson Coll of Architecture & Built Environment |
| Architecture (BS) Sustainable Design (MS) Accelerated 5+1 (p. 44) | | East Falls | On-Campus | Jefferson Coll of Architecture & Built Environment |
| Architecture Studies (BS) Real Estate Development (MS), Accelerated 4+1 (p. 47) | BS/MS | East Falls | On-Campus | Jefferson Coll of Architecture & Built Environment |
| Biotechnology (BS/MS) (p. 67) | BS/MS | East Falls & Center City | On-Campus | Jefferson College of Health Professions |
| Construction Mgt. (MS) Real Estate Development (MS) 1+1 (p. 50) | MS | Online | Hybrid | Jefferson Coll of Architecture & Built Environment |
| Construction Mgt. (MS) Sustainable Design (MS) , 1+1 (p. 51) | MS | East Falls | On-Campus | Jefferson Coll of Architecture & Built Environment |
| Cytotechnology Cell Sciences (BS/MS) (p. 78) | BS/MS | Center City | On-Campus | Jefferson College of Health Professions |
| Emergency and Disaster Management (MS) Public Health (MPH) (p. 161) | MS/MPH | Center City | On-Campus | Jefferson College of Population Health |
| Emergency and Disaster Management (MS) Public Health (MPH) (p. 162) | MS/MPH | East Falls & Center City | | ^Coll of Health Professions |
| Exercise Science (BS) Athletic Training (MSAT) (p. 183) | BS/MS | East Falls | On-Campus | Jefferson College of Rehabilitation Sciences |

| Academic Program | Degree | Campus | Format | College |
|---|----------|--------------------------|-----------|--|
| Exercise Science (BS) Occupational Therapy (OTD) (p. 184) | BS/OTD | East Falls & Center City | On-Campus | Jefferson College of Rehabilitation Sciences |
| Exercise Science (BS) Physical Therapy (DPT) (p. 185) | BS/DPT | East Falls & Center City | On-Campus | Jefferson College of Rehabilitation Sciences |
| Health Professions Pathways BS (Accelerated Pathway) (p. 81) | | East Falls | Online | Institute for Emerging Health Professions |
| Health Sciences (BS) Athletic Training (MS) (p. 82) | BS/MS | East Falls | On-Campus | Jefferson College of Health Professions |
| Health Sciences (BS) Community Trauma Counseling (MS) (p. 83) | BS/MS | East Falls | On-Campus | Jefferson College of Health Professions |
| Health Sciences (BS) Community and Trauma Counseling (MS) (p. 84) | BS/MS | East Falls | On-Campus | Jefferson College of Health Professions |
| Health Sciences (BS) Nutrition Dietetic Practice (MS) (p. 85) | BS/MS | East Falls & Center City | On-Campus | Jefferson College of Health Professions |
| Health Sciences (BS) Occupational Therapy (OTD) (p. 86) | BS/OTD | | On-Campus | Jefferson College of Health Professions |
| Health Sciences (BS) Occupational Therapy (OTD) (p. 87) | | East Falls & Center City | On-Campus | Jefferson College of Health Professions |
| Health Sciences (BS) Physician Assistant (PA) (p. 88) | BS/MS | East Falls & Vorhees | On-Campus | Jefferson College of Health Professions |
| Interior Design (BS) Architecture (MArch) Accelerated, 4+2 (p. 58) | BS/MArch | East Falls | On-Campus | Jefferson Coll of Architecture & Built Environment |
| Interior Design (BS) Historic Preservation (MS) 4+1 (p. 59) | BS/MS | East Falls | On-Campus | Jefferson Coll of Architecture & Built Environment |
| Interior Design (BS) Real Estate Development (MS) 4+1 (p. 59) | BS/MS | East Falls | On-Campus | Jefferson Coll of Architecture & Built Environment |
| Interior Design (BS) Sustainable Design (MS), Accelerated 4+1 (p. 59) | BS/MS | East Falls | On-Campus | Jefferson Coll of Architecture & Built Environment |
| Landscape Architecture (BLA) Sustainable Design (MS) Accelerated 4 + 1 (p. 60) | | East Falls | On-Campus | Jefferson Coll of Architecture & Built Environment |
| Law (JD) Public Health (MPH) (p. 169) | JD/MPH | | On-Campus | Jefferson College of Population Health |
| Medical Laboratory Sciences (BS/MS) (p. 110) | BS/MS | | | Jefferson College of Health Professions |
| Medicine (MD) Public Health (MPH) (DO/MPH) (p. 169) | MD/MPH | Center City | On-Campus | Jefferson College of Population Health |
| Midwifery (MS/DM) (p. 115) | MS/DM | | | Jefferson College of Health Professions |
| Nursing (PhD) Public Health (MPH) (p. 170) | PhD/MPH | Center City | On-Campus | Jefferson College of Population Health |
| Occupational Therapy- East Falls (BS/MSOT) (p. 190) | BS/MS | East Falls | On-Campus | Jefferson College of Rehabilitation Sciences |

| Academic Program | Degree | Campus | Format | College |
|--|------------|-------------|-----------|--|
| Pharmaceutical Science (PharmD) Public Health (MPH) (p. 172) | PharmD/MPH | | On-Campus | Jefferson College of Population Health |
| Pharmacy (PharmD) Public Health (MPH) (p. 157) | PharmD/MPH | Center City | On-Campus | Jefferson College of Pharmacy |
| Physician Assistant Studies (MS) Health Sciences (DHSc) (p. 117) | | Center City | | Jefferson College of Health Professions |
| Psychology (BS) Community Trauma Counseling (MS) (p. 120) | BS/MS | East Falls | On-Campus | Jefferson College of Health Professions |
| Social Work (MSS) Public Health (MPH) (p. 179) | MSS/MPH | | On-Campus | Jefferson College of Population Health |
| Textile Design- Accelerated (BS/MS) (p. 226) | BS/MS | | On-Campus | Kanbar College of Design, Engineering & Commerce |

Certificate Programs

| Academic Program | Degree | Campus | Format | College |
|---|---------------------------|-------------|-----------|--|
| Advanced Headache Diagnosis Management (Post-Graduate Certificate) (p. 146) | Post-Graduate Certificate | Center City | On-Campus | Jefferson College of Nursing |
| Applied Health Economics Outcomes Research (Graduate Certificate) (p. 160) | Graduate Certificate | Center City | On-Campus | Jefferson College of Population Health |
| Art Therapy Advanced Studies (Graduate Certificate) (p. 66) | Graduate Certificate | East Falls | On-Campus | Jefferson College of Health Professions |
| Biopharmaceutical Process Development (Graduate Certificate) (p. 198) | Graduate Certificate | East Falls | On-Campus | Kanbar College of Design, Engineering & Commerce |
| Brand Management (Graduate Certificate) (p. 217) | Graduate Certificate | East Falls | Online | Kanbar College of Design, Engineering & Commerce |
| Business Organizational Continuity (Graduate Certificate) (p. 98) | Undergraduate Certificate | Online | Online | Institute for Emerging Health Professions |
| Cannabis Business (Graduate Certificate) (p. 98) | Graduate Certificate | Center City | On-Campus | Institute for Emerging Health Professions |
| Cannabis Medicine (Graduate Certificate) (p. 98) | Graduate Certificate | Center City | On-Campus | Institute for Emerging Health Professions |
| Cannabis Science (Graduate Certificate) (p. 98) | Graduate Certificate | Center City | On-Campus | Institute for Emerging Health Professions |
| Clinical Chemistry (Graduate Certificate) (p. 72) | Graduate Certificate | | | Jefferson College of Health Professions |
| Clinical Hematology (Graduate Certificate) (p. 72) | Graduate Certificate | | | Jefferson College of Health Professions |
| Clinical Microbiology (Graduate Certificate) (p. 73) | Graduate Certificate | | | Jefferson College of Health Professions |

| Academic Program | Degree | Campus | Format | College |
|---|-------------------------------|-------------|-----------|--|
| Clinical Research Trials: Implications (Graduate Certificate) (p. 136) | Graduate Certificate | Center City | On-Campus | Jefferson College of Life Sciences |
| Clinical Research: Operations (Graduate Certificate) (p. 137) | Graduate Certificate | Center City | On-Campus | Jefferson College of Life Sciences |
| Coaching In Context (Advanced-Practice Certificate) (p. 181) | Advanced Practice Certificate | Center City | Hybrid | Jefferson College of Rehabilitation Sciences |
| Computed Tomography (Undergraduate Certificate) (p. 76) | Undergraduate Certificate | Online | On-Campus | Jefferson College of Health Professions |
| Construction Management (Graduate Certificate) (p. 49) | Graduate Certificate | Online | Hybrid | Jefferson Coll of Architecture & Built Environment |
| Consulting (Graduate Certificate) (p. 201) | Graduate Certificate | East Falls | Online | School of Business |
| Design of Living Buildings (Graduate Certificate) (p. 51) | Graduate Certificate | East Falls | On-Campus | Jefferson Coll of Architecture & Built Environment |
| Design of Resilient Communities (Graduate Certificate) (p. 52) | Graduate Certificate | Online | Hybrid | Jefferson Coll of Architecture & Built Environment |
| Diversity, Equity and Inclusion for Healthcare Leaders (Graduate Certificate) (p. 202) | Graduate Certificate | East Falls | Hybrid | School of Business |
| Effective Organizational Communications (Graduate Certificate) (p. 202) | Graduate Certificate | East Falls | Hybrid | School of Business |
| Emergency Disaster Management (Graduate Certificate) (p. 80) | Graduate Certificate | East Falls | On-Campus | Institute for Emerging Health Professions |
| Emergency Nurse Practitioner (Post-Graduate Certificate) (p. 147) | Post-Graduate Certificate | Center City | On-Campus | Jefferson College of Nursing |
| Emerging Leaders in Autism Practice Research (Advanced-Practice Certificate) (p. 182) | Advanced Practice Certificate | Center City | Online | Jefferson College of Rehabilitation Sciences |
| Fundamentals of Leadership and Organizational Development (Graduate Certificate) (p. 205) | Graduate Certificate | East Falls | Online | School of Business |
| Geographic Information Systems (Graduate Certificate) (p. 52) | Graduate Certificate | East Falls | On-Campus | Jefferson Coll of Architecture & Built Environment |
| Geospatial Technology for Geodesign (Graduate Certificate) (p. 52) | Graduate Certificate | East Falls | On-Campus | Jefferson Coll of Architecture & Built Environment |
| Green Building Operations (Graduate Certificate) (p. 54) | Graduate Certificate | East Falls | On-Campus | Jefferson Coll of Architecture & Built Environment |
| Hand Upper Limb Rehabilitation (Advanced-Practice Certificate) (p. 187) | Advanced Practice Certificate | Center City | On-Campus | Jefferson College of Rehabilitation Sciences |

| Academic Program | Degree | Campus | Format | College |
|---|-------------------------------|-------------|-----------|--|
| Health Data Science (Graduate Certificate) (p. 162) | Graduate Certificate | Center City | On-Campus | Jefferson College of Population Health |
| Health Policy (Graduate Certificate) (p. 164) | Graduate Certificate | Center City | On-Campus | Jefferson College of Population Health |
| Health Professions Teaching and Learning (Graduate Certificate) (p. 101) | Graduate Certificate | Online | Online | Institute for Emerging Health Professions |
| Healthcare Information Systems (Undergraduate Certificate) (p. 96) | Undergraduate Certificate | Online | Online | Institute for Emerging Health Professions |
| Healthcare Quality Safety (Advanced Practice Certificate) (p. 166) | Advanced Practice Certificate | Center City | On-Campus | Jefferson College of Population Health |
| Healthcare Quality Safety (Graduate Certificate) (p. 166) | Graduate Certificate | Center City | On-Campus | Jefferson College of Population Health |
| Historic Preservation (Graduate Certificate) (p. 55) | Graduate Certificate | East Falls | On-Campus | Jefferson Coll of Architecture & Built Environment |
| Human Clinical Investigation: Theory (Graduate Certificate) (p. 139) | Graduate Certificate | Center City | On-Campus | Jefferson College of Life Sciences |
| Human Resource Leadership (Graduate Certificate) (p. 206) | Graduate Certificate | East Falls | Online | School of Business |
| Immunohematology (Graduate Certificate) (p. 97) | Graduate Certificate | | | Jefferson College of Health Professions |
| Infectious Disease Control (Graduate Certificate) (p. 141) | Graduate Certificate | Center City | On-Campus | Jefferson College of Life Sciences |
| Integrative Health Education Leadership (Advanced-Practice Certificate) (p. 101) | Advanced Practice Certificate | Center City | On-Campus | Institute for Emerging Health Professions |
| Integrative Nutrition (Advanced-Practice Certificate) (p. 102) | Advanced Practice Certificate | Center City | On-Campus | Institute for Emerging Health Professions |
| Life Care Planning (Graduate Certificate) (p. 187) | Graduate Certificate | Center City | On-Campus | Jefferson College of Rehabilitation Sciences |
| Midwifery (Advanced-Practice Certificate) (p. 113) | Post-Graduate Certificate | Online | Online | Jefferson College of Health Professions |
| Mind-Body Medicine (Advanced-Practice Certificate) (p. 104) | Advanced Practice Certificate | Center City | On-Campus | Institute for Emerging Health Professions |
| Molecular Biology (Graduate Certificate) (p. 116) | Graduate Certificate | | | Jefferson College of Health Professions |
| Neuroscience: Advanced Concepts for Evidence Based Practice (Graduate Certificate) (p. 187) | Graduate Certificate | Center City | On-Campus | Jefferson College of Rehabilitation Sciences |
| Nurse Practitioners(Post-Graduate Certificate) (p. 148) | Post-Graduate Certificate | | | Jefferson College of Nursing |

| Academic Program | Degree | Campus | Format | College |
|---|-------------------------------|-------------|-----------|--|
| Nursing Education: Academic Nursing (Advanced Certificate) (p. 154) | Advanced Certificate | Center City | On-Campus | Jefferson College of Nursing |
| Operational Excellence (Advanced-Practice Certificate) (p. 170) | Advanced Practice Certificate | Center City | On-Campus | Jefferson College of Population Health |
| Operational Excellence (Graduate Certificate) (p. 171) | Graduate Certificate | Center City | On-Campus | Jefferson College of Population Health |
| Organizational Change Management (Graduate Certificate) (p. 212) | Graduate Certificate | East Falls | Online | School of Business |
| Patient-Centered Research (Graduate Certificate) (p. 144) | Graduate Certificate | Center City | On-Campus | Jefferson College of Life Sciences |
| Population Health (Advanced-Practice Certificate) (p. 172) | Advanced Practice Certificate | Center City | On-Campus | Jefferson College of Population Health |
| Population Health (Graduate Certificate) (p. 173) | Graduate Certificate | Center City | On-Campus | Jefferson College of Population Health |
| Population Health Pharmacy (Graduate Certificate) (p. 157) | Graduate Certificate | Center City | On-Campus | Jefferson College of Pharmacy |
| Public Health (Graduate Certificate) (p. 177) | Graduate Certificate | Center City | On-Campus | Jefferson College of Population Health |
| Real Estate Development (Graduate Certificate) (p. 61) | Graduate Certificate | East Falls | On-Campus | Jefferson Coll of Architecture & Built Environment |
| Smart Cities Urban Analytics (Graduate Certificate) (p. 62) | Graduate Certificate | East Falls | On-Campus | Jefferson Coll of Architecture & Built Environment |
| Surface Imaging (Advanced-Practice Certificate) (p. 224) | Advanced Practice Certificate | East Falls | On-Campus | Kanbar College of Design, Engineering & Commerce |
| Sustainable Leadership (Graduate Certificate) (p. 64) | Graduate Certificate | Online | Hybrid | Jefferson Coll of Architecture & Built Environment |
| Teaching in the Digital Age (Advanced-Practice Certificate) (p. 193) | Advanced Practice Certificate | Center City | On-Campus | Jefferson College of Rehabilitation Sciences |
| Transformational Leadership (Graduate Certificate) (p. 215) | Graduate Certificate | East Falls | Online | School of Business |
| Transformative Systems Leadership (Advanced Certificate) (p. 154) | Advanced Certificate | Dixon | On-Campus | Jefferson College of Nursing |
| Trauma, Addiction Recovery Advanced Studies (Graduate Certificate) (p. 122) | Graduate Certificate | East Falls | On-Campus | Jefferson College of Health Professions |

Continuing & Professional Studies Programs

| Academic Program | Degree | Campus | Format | College |
|--|---------------------------|---------------------------|-----------|---|
| Behavioral Health Services (BS) (p. 67) | BS | East Falls | Hybrid | Institute for Emerging Health Professions |
| Health Human Services (AS) (p. 81) | | Restricted District 1199C | On-Campus | Institute for Emerging Health Professions |
| Health Human Services: Radiologic Technology (AS) (p. 100) | | | | Institute for Emerging Health Professions |
| Health Sciences (BS) (p. 82) | BS | East Falls | Hybrid | Institute for Emerging Health Professions |
| Health Services Management (BS) (p. 95) | BS | East Falls | Hybrid | Institute for Emerging Health Professions |
| Health Studies (BS) (p. 96) | BS | East Falls | Online | Institute for Emerging Health Professions |
| Healthcare Leadership (Graduate Certificate) (p. 205) | Graduate Certificate | East Falls | | School of Business |
| Human Resource Management (BS) (p. 206) | BS | East Falls | Hybrid | School of Business |
| Medical Coding Data Quality (Undergraduate Certificate) (p. 103) | Undergraduate Certificate | Center City | Online | Institute for Emerging Health Professions |
| Medical Practice Management (Undergraduate Certificate) (p. 103) | Undergraduate Certificate | Center City | Online | Institute for Emerging Health Professions |
| Midwifery (Re-entry to Practice Process) (p. 116) | | Center City | On-Campus | Jefferson College of Health Professions |

Graduate Programs

| Academic Program | Degree | Campus | Format | College |
|---|--------|-------------|-----------|--|
| Advanced Biotherapeutics Manufacturing Regulatory Affairs (MS) (p. 196) | MS | East Falls | On-Campus | Kanbar College of Design, Engineering & Commerce |
| Applied Health Economics Outcomes Research (MS) (p. 160) | MS | Center City | On-Campus | Jefferson College of Population Health |
| Architecture (MArch) (p. 44) | MArch | East Falls | On-Campus | Jefferson Coll of Architecture & Built Environment |
| Architecture and Design Research (MS) (p. 45) | MS | East Falls | On-Campus | Jefferson Coll of Architecture & Built Environment |
| Architecture and Design Research (PhD) (p. 46) | PhD | East Falls | On-Campus | Jefferson Coll of Architecture & Built Environment |
| Athletic Training (MS) (p. 180) | MS | East Falls | On-Campus | Jefferson College of Rehabilitation Sciences |
| Biochemistry, Structural, Molecular Biology (PhD) (p. 132) | PhD | Center City | On-Campus | Jefferson College of Life Sciences |
| Biologics Process Engineering (PhD) (p. 197) | PhD | East Falls | On-Campus | Kanbar College of Design, Engineering & Commerce |

| Academic Program | Degree | Campus | Format | College |
|--|--------|-------------|-----------|--|
| Biomedical Sciences (MS) (p. 133) | MS | Center City | On-Campus | Jefferson College of Life Sciences |
| Biopharmaceutical Process Engineering (MS) (p. 198) | MS | East Falls | On-Campus | Kanbar College of Design, Engineering & Commerce |
| Biotechnology (MS) (p. 70) | MS | Center City | On-Campus | Jefferson College of Health Professions |
| Cardiovascular Perfusion (MS) (p. 99) | MS | Center City | On-Campus | Institute for Emerging Health Professions |
| Cardiovascular Perfusion Post-Professional (MS) (p. 99) | MS | Center City | On-Campus | Institute for Emerging Health Professions |
| Cell Developmental Biology (MS) (p. 134) | MS | Center City | On-Campus | Jefferson College of Life Sciences |
| Cell Biology Regenerative Medicine (PhD) (p. 134) | PhD | Center City | On-Campus | Jefferson College of Life Sciences |
| Clinical Research (MS) (p. 136) | MS | Center City | On-Campus | Jefferson College of Life Sciences |
| Community Trauma Counseling (MS) (p. 73) | MS | East Falls | On-Campus | Jefferson College of Health Professions |
| Community Trauma Counseling: Art Therapy Concentration (MS) (p. 74) | MS | East Falls | On-Campus | Jefferson College of Health Professions |
| Community Trauma Counseling: Child Trauma Play Therapy Concentration (MS) (p. 75) | MS | East Falls | On-Campus | Jefferson College of Health Professions |
| Community Trauma Counseling: Trauma, Addiction Recovery Concentration (MS) (p. 76) | MS | East Falls | On-Campus | Jefferson College of Health Professions |
| Construction Management (MS) (p. 50) | MS | Online | Hybrid | Jefferson Coll of Architecture & Built Environment |
| Couple Family Therapy (MFT) (p. 76) | MFT | Center City | On-Campus | Jefferson College of Health Professions |
| Crisis and Emergency Management (Executive MS) (p. 77) | MS | East Falls | Hybrid | Institute for Emerging Health Professions |
| Cytotechnology Cell Sciences (MS) (p. 78) | MS | Center City | On-Campus | Jefferson College of Health Professions |
| Emergency Disaster Management (MS) (p. 80) | MS | East Falls | On-Campus | Institute for Emerging Health Professions |
| Engineering: Textile Concentration (MS) (p. 218) | MS | East Falls | On-Campus | Kanbar College of Design, Engineering & Commerce |
| Executive Leadership (DNP) (p. 147) | DNP | Center City | On-Campus | Jefferson College of Nursing |
| Fashion Merchandising and Management (MS) (p. 204) | MS | East Falls | On-Campus | Kanbar College of Design, Engineering & Commerce |
| Forensic Biology (MS) (p. 137) | MS | Center City | On-Campus | Jefferson College of Life Sciences |
| Forensic Toxicology (MS) (p. 138) | MS | Center City | On-Campus | Jefferson College of Life Sciences |

| Academic Program | Degree | Campus | Format | College |
|---|--------|--------------------------|-----------|--|
| Genetics, Genomics Cancer Biology (PhD) (p. 138) | PhD | Center City | On-Campus | Jefferson College of Life Sciences |
| Global Textile Design (MS/ MSc) (p. 220) | MS/MSc | East Falls | On-Campus | Kanbar College of Design, Engineering & Commerce |
| Health Communication Design (MS) (p. 220) | MS | East Falls | On-Campus | Kanbar College of Design, Engineering & Commerce |
| Health Data Science (MS) (p. 163) | MS | Center City | On-Campus | Jefferson College of Population Health |
| Health Policy (MS) (p. 164) | MS | Center City | On-Campus | Jefferson College of Population Health |
| Health Professions Education (MS) (p. 100) | MS | Center City | Online | Institute for Emerging Health Professions |
| Health Sciences (DHSc) (p. 89) | PhD | Center City | On-Campus | Jefferson College of Health Professions |
| Healthcare Quality Safety (MS) (p. 167) | MS | Center City | On-Campus | Jefferson College of Population Health |
| Historic Preservation (MS) (p. 55) | MS | East Falls | On-Campus | Jefferson Coll of Architecture & Built Environment |
| Human Genetics Genetic Counseling (MS) (p. 140) | MS | Center City | On-Campus | Jefferson College of Life Sciences |
| Immunology Microbial Pathogenesis (PhD) (p. 141) | PhD | Center City | On-Campus | Jefferson College of Life Sciences |
| Industrial Design (MS) (p. 222) | MS | East Falls | On-Campus | Kanbar College of Design, Engineering & Commerce |
| Integrative Health Sciences (MS) (p. 101) | MS | Center City | On-Campus | Institute for Emerging Health Professions |
| Integrative Physiology (PhD) (p. 142) | PhD | Center City | On-Campus | Jefferson College of Life Sciences |
| Interior Architecture (MS) (p. 56) | MS | East Falls | On-Campus | Jefferson Coll of Architecture & Built Environment |
| International Fashion Design Management (MS) (p. 222) | MS | East Falls | On-Campus | Kanbar College of Design, Engineering & Commerce |
| MBA (Business Administration) (p. 210) | MBA | East Falls & Center City | On-Campus | Kanbar College of Design, Engineering & Commerce |
| Medical Cannabis Science and Business (MS) (p. 102) | MS | Center City | On-Campus | Institute for Emerging Health Professions |
| Medical Imaging Radiation Sciences (MS) (p. 107) | MS | Center City | On-Campus | Jefferson College of Health Professions |
| Medical Laboratory Leadership (MS) (p. 108) | MS | Center City | Online | Jefferson College of Health Professions |
| Medical Laboratory Sciences (MS) (p. 112) | MS | Center City | On-Campus | Jefferson College of Health Professions |
| Medicine (MD) (p. 231) | MD/PHd | Center City | On-Campus | Sidney Kimmel Medical College |
| Microbiology Immunology (MS) (p. 143) | MS | Center City | On-Campus | Jefferson College of Life Sciences |
| Midwifery (DM) (p. 113) | DM | Center City | On-Campus | Jefferson College of Health Professions |
| Midwifery (MS) (p. 114) | MS | Center City | On-Campus | Jefferson College of Health Professions |
| Neuroscience (PhD) (p. 143) | PhD | Center City | On-Campus | Jefferson College of Life Sciences |

| Academic Program | Degree | Campus | Format | College |
|---|--------|-------------|-----------|--|
| Nurse Anesthesia (DNP) (p. 148) | DNP | Dixon | On-Campus | Jefferson College of Nursing |
| Nursing (DNP) (p. 150) | DNP | Dixon | On-Campus | Jefferson College of Nursing |
| Nursing (MSN) (p. 151) | MSN | Dixon | On-Campus | Jefferson College of Nursing |
| Nursing (PhD) (p. 153) | PhD | Center City | On-Campus | Jefferson College of Nursing |
| Nutrition Dietetic Practice (MS) (p. 116) | MS | Center City | On-Campus | Jefferson College of Health Professions |
| Occupational Therapy (POTD) (p. 188) | POTD | Center City | On-Campus | Jefferson College of Rehabilitation Sciences |
| Occupational Therapy - Center City (OTD) (p. 189) | OTD | Center City | On-Campus | Jefferson College of Rehabilitation Sciences |
| Occupational Therapy - Center City (MSOT) (p. 190) | MSOT | Center City | On-Campus | Jefferson College of Rehabilitation Sciences |
| Occupational Therapy - East Falls (MSOT) (p. 191) | MSOT | East Falls | On-Campus | Jefferson College of Rehabilitation Sciences |
| Operational Excellence (MS) (p. 171) | MS | Center City | On-Campus | Jefferson College of Population Health |
| Organizational Leadership (MS) (p. 213) | MS | East Falls | Hybrid | School of Business |
| Pharmaceutical Sciences (MS) (p. 155) | MS | Center City | On-Campus | Jefferson College of Pharmacy |
| Pharmacology (MS) (p. 144) | MS | Center City | Online | Jefferson College of Life Sciences |
| Pharmacy (PharmD) (p. 156) | PharmD | Center City | On-Campus | Jefferson College of Pharmacy |
| Physical Therapy (DPT) (p. 192) | | Center City | On-Campus | Jefferson College of Rehabilitation Sciences |
| Physician Assistant Studies - Center City (MS) (p. 118) | MS | Center City | On-Campus | Jefferson College of Health Professions |
| Physician Assistant Studies - East Falls (MS) (p. 119) | MS | East Falls | On-Campus | Jefferson College of Health Professions |
| Population Health (DHSc) (p. 173) | DHSc | Center City | On-Campus | Jefferson College of Population Health |
| Population Health (MS) (p. 174) | MS | Center City | On-Campus | Jefferson College of Population Health |
| Population Health Pharmacy (MS) (p. 158) | MS | Center City | Online | Jefferson College of Pharmacy |
| Population Health Science (PhD) (p. 176) | PhD | Center City | On-Campus | Jefferson College of Population Health |
| Public Health (MPH) (p. 178) | MS/MPH | Center City | On-Campus | Jefferson College of Population Health |
| Public Health (MPH) (p. 179) | MS/MPH | Center City | Online | Jefferson College of Population Health |
| Real Estate Development (MS) (p. 61) | MS | Online | Hybrid | Jefferson Coll of Architecture & Built Environment |
| Speech-Language Pathology (MS-SLP) (p. 193) | MS | Center City | On-Campus | Jefferson College of Rehabilitation Sciences |
| Strategic Leadership (DMgt) (p. 214) | | | On-Campus | School of Business |
| Sustainable Design (MS) (p. 62) | MS | Online | Hybrid | Jefferson Coll of Architecture & Built Environment |

| Academic Program | Degree | Campus | Format | College |
|---|--------|-------------|-----------|--|
| Sustainable Design - in Partnership with Brick (MS) (p. 63) | MS | | Hybrid | Jefferson Coll of Architecture & Built Environment |
| Taxation (MS) (p. 215) | MS | East Falls | On-Campus | Kanbar College of Design, Engineering & Commerce |
| Textile Design (MS) (p. 225) | MS | East Falls | On-Campus | Kanbar College of Design, Engineering & Commerce |
| Textile Engineering Sciences (PhD) (p. 226) | PhD | East Falls | On-Campus | Kanbar College of Design, Engineering & Commerce |
| Textile Technology (MS) (p. 228) | MS | East Falls | On-Campus | Kanbar College of Design, Engineering & Commerce |
| Transformative Systems Leadership (MSN) (p. 155) | MSN | Center City | On-Campus | Jefferson College of Nursing |
| Urban Design- Future Cities (MUD) (MS) (p. 64) | MS | East Falls | On-Campus | Jefferson Coll of Architecture & Built Environment |
| User Experience Interaction Design (MS) (p. 228) | MS | East Falls | On-Campus | Kanbar College of Design, Engineering & Commerce |

Undergraduate Programs

| Academic Program | Degree | Campus | Format | College |
|--|----------------------|--------------------------|-----------|--|
| Accounting (BS) (p. 200) | BS | East Falls | On-Campus | Kanbar College of Design, Engineering & Commerce |
| Animation Digital Media (BS) (p. 216) | BS | East Falls | On-Campus | Kanbar College of Design, Engineering & Commerce |
| Architectural Studies (BS) (p. 39) | BS | East Falls | On-Campus | Jefferson Coll of Architecture & Built Environment |
| Architecture (BArch) (p. 41) | BArch | East Falls | On-Campus | Jefferson Coll of Architecture & Built Environment |
| Biochemistry (BS) (p. 131) | BS | East Falls | On-Campus | Jefferson College of Life Sciences |
| Biology (BS) (p. 132) | BS | East Falls | On-Campus | Jefferson College of Life Sciences |
| Biopsychology (BS) (p. 125) | BS | East Falls | On-Campus | Jefferson College of Humanities & Sciences |
| Biotechnology (BS) (p. 69) | BS | East Falls & Center City | On-Campus | Jefferson College of Health Professions |
| Brand Management (Graduate Certificate) (p. 201) | Graduate Certificate | East Falls | Online | School of Business |
| Business Management (BS) (p. 201) | BS | East Falls | Hybrid | School of Business |
| Chemistry (BS) (p. 135) | BS | East Falls | On-Campus | Jefferson College of Life Sciences |
| Communication Media Studies (BS) (p. 126) | BS | East Falls | On-Campus | Jefferson College of Humanities & Sciences |
| Construction Management (BS) (p. 48) | BS | East Falls | On-Campus | Jefferson Coll of Architecture & Built Environment |
| Cytotechnology Cell Sciences (BS) (p. 77) | BS | Center City | On-Campus | Jefferson College of Health Professions |

| Academic Program | Degree | Campus | Format | College |
|--|--------|--------------------------|-----------|--|
| Engineering (BSE) (p. 217) | BSE | East Falls | On-Campus | Kanbar College of Design, Engineering & Commerce |
| Exercise Science (BS) (p. 182) | BS | East Falls | On-Campus | Jefferson College of Rehabilitation Sciences |
| Fashion Design (BS) (p. 219) | BS | East Falls | On-Campus | Kanbar College of Design, Engineering & Commerce |
| Fashion Merchandising Management (BS) (p. 203) | BS | East Falls | On-Campus | Kanbar College of Design, Engineering & Commerce |
| Finance (BS) (p. 204) | BS | East Falls | On-Campus | Kanbar College of Design, Engineering & Commerce |
| Health Insurance Management (BS) (p. 81) | BS | East Falls | Online | Institute for Emerging Health Professions |
| Health Sciences (BS) (p. 81) | BS | East Falls | On-Campus | Jefferson College of Health Professions |
| Health Sciences: Pre-Medical Imaging/Radiation Sciences (BS) (p. 90) | BS | East Falls & Center City | On-Campus | Jefferson College of Health Professions |
| Health Sciences: Pre-Medical Lab Sci/Biotechnology (BS) (p. 91) | BS | East Falls | On-Campus | Jefferson College of Health Professions |
| Health Sciences: Pre-Nursing (BS) (p. 92) | BSN | East Falls | On-Campus | Jefferson College of Health Professions |
| Health Sciences: Pre-Pharmacy (BS) (p. 92) | BS | East Falls & Center City | On-Campus | Jefferson College of Health Professions |
| Health Sciences: Pre-Physician Assistant (BS) (p. 94) | BS | East Falls | On-Campus | Jefferson College of Health Professions |
| Health Sciences: Pre-Respiratory Therapy (BS) (p. 95) | BS | East Falls & Center City | On-Campus | Jefferson College of Health Professions |
| Industrial Design (BS) (p. 221) | BS | East Falls | On-Campus | Kanbar College of Design, Engineering & Commerce |
| Information Technology (BS) (p. 207) | BS | East Falls | Hybrid | School of Business |
| Interdisciplinary Studies (BS) (p. 127) | BS | East Falls | On-Campus | Jefferson College of Humanities & Sciences |
| Interior Design (BS) (p. 57) | BS | East Falls | On-Campus | Jefferson Coll of Architecture & Built Environment |
| International Business (BS) (p. 208) | BS | East Falls | On-Campus | Kanbar College of Design, Engineering & Commerce |
| Landscape Architecture (BLA) (p. 59) | BLA | East Falls | On-Campus | Jefferson Coll of Architecture & Built Environment |
| Law Society (BS) (p. 128) | BS | East Falls | On-Campus | Jefferson College of Humanities & Sciences |
| Management (BS) (p. 208) | BS | East Falls | On-Campus | Kanbar College of Design, Engineering & Commerce |
| Marketing (BS) (p. 209) | BS | East Falls | On-Campus | Kanbar College of Design, Engineering & Commerce |
| Mechanical Engineering (BS) (p. 223) | BS | East Falls | On-Campus | Kanbar College of Design, Engineering & Commerce |
| Medical Imaging Radiation Sciences (BS) (p. 104) | BS | Center City | On-Campus | Jefferson College of Health Professions |
| Medical Laboratory Science (BS) (p. 110) | BS | Center City | On-Campus | Jefferson College of Health Professions |

| Academic Program | Degree | Campus | Format | College |
|---|--------|-------------|-----------|--|
| Nursing (BSN) (p. 148) | BSN | Dixon | On-Campus | Jefferson College of Nursing |
| Occupational Therapy (ASOT) (p. 188) | ASOT | East Falls | On-Campus | Jefferson College of Rehabilitation Sciences |
| Organizational Leadership (BS) (p. 213) | BS | East Falls | Online | School of Business |
| Organizational Leadership (BS) (p. 212) | BS | East Falls | Hybrid | School of Business |
| Pre-Medical Studies (BS) (p. 145) | BS | East Falls | On-Campus | Jefferson College of Life Sciences |
| Psychology (BS) (p. 129) | BS | East Falls | On-Campus | Jefferson College of Humanities & Sciences |
| Respiratory Therapy (BS) (p. 121) | BS | Center City | On-Campus | Jefferson College of Health Professions |
| Textile Design (BS) (p. 224) | BS | East Falls | On-Campus | Kanbar College of Design, Engineering & Commerce |
| Textile Product Science (BS) (p. 227) | BS | East Falls | On-Campus | Kanbar College of Design, Engineering & Commerce |
| Visual Communication Design (BS) (p. 229) | BS | East Falls | On-Campus | Kanbar College of Design, Engineering & Commerce |

COLLEGES & SCHOOLS

- College of Architecture & The Built Environment (CABE) (p. 38)
- College of Health Professions (JCHP) (p. 65)
- College of Humanities & Sciences (JCHS) (p. 122)
- College of Life Sciences (JCLS) (p. 130)
- College of Nursing (JCN) (p. 146)
- College of Pharmacy (JCP) (p. 155)
- College of Population Health (JCPH) (p. 158)
- College of Rehabilitation Sciences (JCRS) (p. 180)
- Continuing & Professional Studies (CPS) (p. 194)
- Kanbar College of Design, Engineering & Commerce (KANBAR) (p. 195)
- Sidney Kimmel Medical College (SKMC) (p. 230)

College of Architecture & The Built Environment (CABE)

Dean: Barbara Klinkhammer, RA (DEU), Dipl.-Ing
College Website (<http://Jefferson.edu/CABE/>)

About Us

The College of Architecture & the Built Environment is committed to educating the next generation of design and construction professionals to create an equitable and sustainable future. Our curricula emphasize specialized knowledge unique to each discipline, paired with interdisciplinary collaboration that prepare students for practice in the global market. With its thriving design and construction industries, Philadelphia serves as our urban lab, furnishing students with professional experiences in a vibrant metropolitan area. Our college partners with major corporations, local communities and nonprofit organizations, supplying a broad range of real-world projects and networking opportunities. Our dynamic approach to education and emphasis on social equity, sustainability and design excellence equip our graduates with a competitive edge, poised to become innovative leaders in sustainable practice.

History

The College of Architecture & the Built Environment evolved from a single interior design course in 1980 to its current status with enrollment of over 800 Architecture, Interior Design, Landscape Architecture, Historic Preservation, Construction Management, Sustainable Design, Geodesign, Real Estate Development, Urban Design and Interior Architecture majors in 5 undergraduate programs, 9 graduate programs, 2 online graduate programs and a PhD program. In 1982 the Bachelor of Science in Interior Design officially began, and in 1991 the professional Bachelor of Architecture program was launched with eighty first-year students. The programs continued to grow and in 2004 the School of Architecture and Design was sub-divided, forming the School of Architecture and the School of Design and Media.

The Bachelor of Landscape Architecture joined the portfolio of design-oriented programs in the School of Architecture in 2005, while the long-standing, pre-professional Bachelor of Science Architectural Studies afforded study of related disciplines in concentrations such as Architectural Design Technology and Historic Preservation. Construction

Management is the most recent undergraduate addition to the School of Architecture, launching in fall 2011.

In 2007 the School of Architecture established its first graduate program in Sustainable Design, followed by graduate programs in Construction Management (2009), Interior Architecture (2011), Geodesign (2013), Architecture (2014), Real Estate Development (2017) and Historic Preservation (2019), Urban Design (2021) and a doctoral program in Architecture and Design Research (2021). These programs are housed in the SEED Center, a LEED-rated building converted from an existing athletic gymnasium.

As part of a university restructuring in 2011, the School of Architecture became the College of Architecture & the Built Environment and celebrated the 35th anniversary of the BS Interior Design program and the 25th anniversary of the Bachelor of Architecture program in 2016.

Academic Programs

Undergraduate

- Architectural Studies (BS) (p. 39)
- Architecture (BArch) (p. 41)
- Construction Management (BS) (p. 48)
- Interior Design (BS) (p. 57)
- Landscape Architecture (BLA) (p. 59)

Graduate

- Architecture (MArch) (p. 44)
- Architecture and Design Research (MS) (p. 45)
- Architecture and Design Research (PhD) (p. 46)
- Construction Management (MS) (p. 50)
- Historic Preservation (MS) (p. 55)
- Interior Architecture (MS) (p. 56)
- Real Estate Development (MS) (p. 61)
- Sustainable Design (MS) (p. 62)
- Sustainable Design - in Partnership with Brick (MS) (p. 63)
- Urban Design- Future Cities (MUD) (MS) (p. 64)

Certificate

- Construction Management (Graduate Certificate) (p. 49)
- Design of Living Buildings (Graduate Certificate) (p. 51)
- Design of Resilient Communities (Graduate Certificate) (p. 52)
- Geographic Information Systems (Graduate Certificate) (p. 52)
- Geospatial Technology for Geodesign (Graduate Certificate) (p. 52)
- Green Building Operations (Graduate Certificate) (p. 54)
- Historic Preservation (Graduate Certificate) (p. 55)
- Real Estate Development (Graduate Certificate) (p. 61)
- Smart Cities & Urban Analytics (Graduate Certificate) (p. 62)
- Sustainable Leadership (Graduate Certificate) (p. 64)

Accelerated/Dual Degree Programs

- Architectural Studies (BS) & Architecture (MArch) 4+2 (p. 40)
- Architectural Studies (BS) & Historic Preservation (MS), Accelerated 4+1 (p. 40)
- Architectural Studies (BS) & Interior Architecture (MS) 4+1 (p. 41)

- Architecture (BArch) & Construction Management (MS) 5+1 (p. 42)
- Architecture (BArch) & Historic Preservation (MS) Accelerated 5+1 (p. 42)
- Architecture (BArch) & Interior Architecture (MS), 4+1 (p. 43)
- Architecture (BArch) & Real Estate Development (MS) 5+1 (p. 43)
- Architecture Studies (BS) & Real Estate Development (MS), Accelerated 4+1 (p. 47)
- Biotechnology (BS/MS) (p. 67)
- Construction Mgt. (MS) & Real Estate Development (MS) 1+1 (p. 50)
- Construction Mgt. (MS) & Sustainable Design (MS) , 1+1 (p. 51)
- Cytotechnology & Cell Sciences (BS/MS) (p. 78)
- Emergency and Disaster Management (MS) & Public Health (MPH) (p. 161)
- Emergency and Disaster Management (MS) & Public Health (MPH) (p. 162)
- Exercise Science (BS) & Athletic Training (MSAT) (p. 183)
- Exercise Science (BS) & Occupational Therapy (OTD) (p. 184)
- Exercise Science (BS) & Physical Therapy (DPT) (p. 185)
- Health Professions Pathways (Accelerated Pathway) (p. 81)
- Health Sciences (BS) & Athletic Training (MS) (p. 82)
- Health Sciences (BS) & Community & Trauma Counseling (MS) (p. 83)
- Health Sciences (BS) & Community and Trauma Counseling (MS) (p. 84)
- Health Sciences (BS) & Nutrition & Dietetic Practice (MS) (p. 85)
- Health Sciences (BS) & Occupational Therapy (OTD) (p. 86)
- Health Sciences (BS) & Physician Assistant (PA) (p. 88)
- Interior Design (BS) & Architecture (MArch) Accelerated, 4+2 (p. 58)
- Interior Design (BS) & Historic Preservation (MS) 4+1 (p. 59)
- Interior Design (BS) & Real Estate Development (MS) 4+1 (p. 59)
- Interior Design (BS) & Sustainable Design (MS), Accelerated 4+1 (p. 59)
- Law (JD) & Public Health (MPH) (p. 169)
- Medical Laboratory Sciences (BS/MS) (p. 110)
- Medicine (MD) & Public Health (MPH) & (DO/MPH) (p. 169)
- Midwifery (MS/DM) (p. 115)
- Nursing (PhD) & Public Health (MPH) (p. 170)
- Occupational Therapy- East Falls (BS/MSOT) (p. 190)
- Pharmaceutical Science (PharmD) & Public Health (MPH) (p. 172)
- Pharmacy (PharmD) & Public Health (MPH) (p. 157)
- Psychology (BS) & Community & Trauma Counseling (MS) (p. 120)
- Social Work (MSS) & Public Health (MPH) (p. 179)
- Textile Design- Accelerated (BS/MS) (p. 226)

University Accreditations (<https://www.jefferson.edu/about/consumer-information-disclosures.html>)

Architectural Studies (BS)

Contacts

Program Director: John Dwyer, AIA, NCARB

Email: John.Dwyer@jefferson.edu
215-291-2984

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/architecture-and-the-built-environment/programs/architectural-studies.html>)

Program Description

The four-year Bachelor of Science in Architectural Studies (BS) program allows students to focus on a field allied to the profession of architecture, customize their education and earn a pre-professional degree. After completing a foundation sequence of studio and technical courses in the first two years, students will either:

1. Choose to specialize in one of three tracks-Real Estate Development, Historic Preservation, or XR Game Environments- or
2. Explore various architecture-related disciplines from a broad array of available minors (selecting two).

Students may also choose to apply to the Bachelor of Architecture program at the end of the third semester.

Students will not only gain valuable skills and real-world experiences, but will also pave the way for a professional credential in one of our master's programs by taking graduate courses while still an undergraduate. Opportunities exist for collaborative projects, fieldwork, study abroad, professional internships and elective offerings.

Learning Goals/Outcomes

- Demonstrate expertise & professional level competency in technical & graphic methods
- Experience collaboration solving problems relative to contemporary issues relative to the built environment.
- Apply knowledge of the history & theory of historic and modern periods, styles, and places in the context of architectural fields
- Demonstrate knowledge of sustainability in the context of a range of architecture related fields
- Demonstrate and apply discipline specific knowledge of content areas that are studied as part of student selected tracks or minors
- Choose a track or two minors that allow students to gain professional credentials through the accelerated dual degree options offered by the College of Architecture & the Built Environment

Curriculum: 4 years, 125-128 credits

| Course | Title | Credits |
|-----------------------|---|---------|
| First Year | | |
| FYS 100 | Pathways Seminar | 1 |
| WRIT 101 | Writing Sem I: Written Comm. | 3 |
| AMST 114 | Course AMST 114 Not Found | 3 |
| SCI 109 or SCI 110 | Sys Thinking & Sustainability or Landscape Ecology | 3 |
| PHYC 101 | General Physics | 3 |
| MATH 103 | Applied Calculus | 3 |

| Course | Title | Credits |
|--|---|----------------|
| Select one of the following: | | 3-4 |
| MATH 1xx | Quantitative Reasoning II | |
| General Elective | | |
| ARFD 101 | Design 1 | 4 |
| ARFD 103 | Visualization 1 | 2 |
| ARCH 102 | Course ARCH 102 Not Found | 4 |
| ARFD 108 | Course ARFD 108 Not Found | 3 |
| Credits | | 32-33 |
| Second Year | | |
| ARCH 313 | Tech 3: Dynamic Envro. Systems | 3 |
| ARDS 208 | Visual 3: Digital Mod for Arch | 3 |
| General Elective (Design 4: recommended) | | 3-4 |
| ARDS 210 | Tech 1: Materials and Methods | 3 |
| ARCH 212 | Tech 2 Passive Sys/Bldg Env | 3 |
| AHST 206 | Built Env in Age of Exploration | 3 |
| ARCH 303 | Structures 1 | 3 |
| ETHC 1XX | Ethics | 3 |
| WRIT 201 or WRIT 202 | Writing Seminar II: Multi Comm or Writing Seminar II: Multi Comm | 3-4 |
| Credits | | 27-29 |
| Third Year | | |
| Minor 1 | Course for Minor 1/or Track | 3 |
| Minor 1 | Course for Minor 1/or Track | 3 |
| AHST 305 | Early Mod Arch&Int 3 | 3 |
| Minor 2 | Course for Minor 2/ or Track | 3 |
| Minor 2 | Course for Minor 2/ or Track | 3 |
| AHST 306 | Hist 4 Modn/Comtmp Arch & Int | 3 |
| ADIV 1XX | American Diversity | 3 |
| Select one of the following: | | 3 |
| GCIT 2XX | Global Citizenship | |
| Global Language | | |
| CGIS 300 | Contemporary Global Issues | 3 |
| General Electives | | 6 |
| Credits | | 33 |
| Fourth Year | | |
| Minor 1 | Course for Minor 1/or Track | 3 |
| Minor 1 | Course for Minor 1/or Track | 3 |
| Minor 2 | Course for Minor 2/ or Track | 3 |
| Minor 2 | Course for Minor 2/or Track | 3 |
| ARST 4XX | Architectural Studies Capstone | 3 |
| ISEM 3XX | Integrative Seminar | 3 |
| Select one of the following: | | 3 |
| GDIV 2XX | Global Diversity | |
| Global Language | | |
| PHIL 499 | Philosophies of the Good Life | 3 |
| General Electives | | 6 |
| Credits | | 30 |
| Total Credits | | 122-125 |

Architectural Studies (BS) & Architecture (MArch) 4+2

Contacts

Program Director: John Dwyer, AIA, NCARB

Email: John.Dwyer@jefferson.edu

215-291-2984

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/architecture-and-the-built-environment/programs/accelerated-dual-degrees.html>)

Program Description

Combined with courses required by the BS Architectural Studies that fulfill Master of Architecture requirements, this Accelerated Dual Degree allows BS Architectural Studies students to achieve advanced standing per the requirements of the Master of Architecture Program and grants them admission into the first semester of the second year of the Master of Architecture upon completion of the undergraduate degree. Students complete the 90-credit Master of Architecture program with just an additional 46 credits. The 4+2 BS Architectural Studies and Master of Architecture Dual Degree also allows students the option to participate in the Integrated Path to Architectural Licensure (IPAL), offered by the National Council of Architectural Registration Boards (NCARB). Individuals who elect this program qualify to take the Architecture Registration Exam (ARE) while still a student, leading to an accelerated pathway to licensure for those seeking to become registered architects.

Architectural Studies (BS) & Historic Preservation (MS), Accelerated 4+1

Contacts

Program Director: John Dwyer, AIA, NCARB; Suzanne Singletary, PhD

Email: John.Dwyer@jefferson.edu; Suzanne.Singletary@jefferson.edu
215-291-2984; 215-951-2794

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/architecture-and-the-built-environment/programs/accelerated-dual-degrees.html>)

Program Description

The MS Historic Preservation foregrounds preservation methodologies applied to projects at multiple scales, ranging from the micro level of individual structures to the macro level of preservation planning. Graduates are equipped with the skills, knowledge and experience to address pressing environmental and community-based challenges. By sub-matriculating in the master's program, Architectural Studies majors may complete foundational coursework required in the "Documentation and Research" track, completing a maximum of 24 credits towards the MS Historic Preservation degree, thereby achieving advanced standing in the master's program while completing the baccalaureate degree. Upon graduation from the BS Architectural Studies, a student may fulfill remaining requirements for the MS Historic Preservation in one year of full-time study.

Curriculum: 5 years

- Students may elect to pursue a 24-credit concentration in Historic Preservation, consisting of four graduate and four undergraduate courses in the discipline.
- Students enrolled in the pre-professional BS Architectural Studies program may achieve professional credentials by enrolling in this 4+1 Accelerated Dual Degree option

Contact Suzanne Singletary (Suzanne.Singletary@jefferson.edu) or John Dwyer for more information.

Architectural Studies (BS) & Interior Architecture (MS) 4+1

Contacts

Program Director: Lauren K. Baumbach, RA, AIA, IIDA, NCIDQ, IDEC
Email: Lauren.Baumbach@Jefferson.edu
215-291-2806

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/architecture-and-the-built-environment/programs/accelerated-dual-degrees.html>)

Program Description

The combined BS in Architectural Studies ([https://nam10.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.jefferson.edu%2Facademics%2Fcolleges-schools-institutes%2Farchitecture-and-the-built-environment%2Fprograms%2Finterior-architecture-ms.html&data=05%7C02%7CDavid.Feldman%40jefferson.edu%7C10fe544f62904ebdda6808dc55739bf2%7C55a89906c710436bbc44c590cb67c4a%7C0%7C0%7C638479202229006771%7CUnknown%7CTWFpbGZsb3d8eyJWljiMC4wLjAwMDAiLCJQIjoiV2luMzliLCJBTiI6Iik1hWwLjCjXVC16Mn0%3D%7C0%7C%7C%7C&sd=1ziuXIA9wWQmZvWRC%2B5jJ5f7RnSGR0x%2BN6yKKnrN30%3D&reserved=0](https://nam10.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.jefferson.edu%2Facademics%2Fcolleges-schools-institutes%2Farchitecture-and-the-built-environment%2Fprograms%2Farchitectural-studies.html&data=05%7C02%7CDavid.Feldman%40jefferson.edu%7C10fe544f62904ebdda6808dc55739bf2%7C55a89906c710436bbc44c590cb67c4a%7C0%7C0%7C638479202229000596%7CUnknown%7CTWFpbGZsb3d8eyJWljiMC4wLjAwMDAiLCJQIjoiV2luMzliLCJBTiI6Iik1hWwLjCjXVC16Mn0%3D%7C0%7C%7C%7C&sd=ALZDfEHmUtmYnk2GLGPf99cQ3fPirZaFlyhSEuBnhmw%3D&reserved=0)) and MS in Interior Architecture (<https://nam10.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.jefferson.edu%2Facademics%2Fcolleges-schools-institutes%2Farchitecture-and-the-built-environment%2Fprograms%2Finterior-architecture-ms.html&data=05%7C02%7CDavid.Feldman%40jefferson.edu%7C10fe544f62904ebdda6808dc55739bf2%7C55a89906c710436bbc44c590cb67c4a%7C0%7C0%7C638479202229006771%7CUnknown%7CTWFpbGZsb3d8eyJWljiMC4wLjAwMDAiLCJQIjoiV2luMzliLCJBTiI6Iik1hWwLjCjXVC16Mn0%3D%7C0%7C%7C%7C&sd=1ziuXIA9wWQmZvWRC%2B5jJ5f7RnSGR0x%2BN6yKKnrN30%3D&reserved=0>) 4+1 Accelerated Dual Degree Program is intended for students who wish to pursue a graduate degree in Interior Architecture while completing the undergraduate, professional program in Architectural Studies. This program enables an undergraduate Architectural Studies major to complete three graduate courses (totaling 11 credits) required by the MS in Interior Architecture program while completing the undergraduate BS in Architectural Studies degree. The students also take four 3-credit undergraduate interior design courses while completing their BS in Architectural Studies degree. Students also receive a 3-credit advanced standing for INTD-307/AHST-306 History 4: Modern/Contemporary History. By overlapping the two programs, a student achieves advanced standing in the 2-year 49-credit version of the MS in Interior Architecture program while an undergraduate and can complete the MS in Interior Architecture degree with an additional 26 credits. Upon graduation from the BS in Architectural Studies program, a student may fulfill the requirements for the MS in Interior Architecture degree in a summer and two semesters of full-time study, for a total reduction of two semesters of graduate coursework and tuition.

Architecture (BArch)

Contacts

Program Director: John Dwyer, AIA, NCARB
Email: John.Dwyer@jefferson.edu
215-291-2984

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/architecture-and-the-built-environment/programs/architecture.html>)

Program Description

- **Accreditation:** NAAB
- **STEM** designated program

The Bachelor of Architecture is a five-year professional degree program accredited by the National Architectural Accrediting Board (NAAB). Students receive an industry-centered, liberal arts-infused education, blending academic scholarship with hands-on, professional learning. The program encourages interdisciplinary collaboration, and most of our faculty members are practicing industry professionals. As architectural practices evolve rapidly to meet new environmental, economic and societal challenges, our curriculum's unique focus on market-driven innovation and sustainability gives students a competitive advantage in the industry. The program builds on an interdisciplinary foundation of design and visualization studies and grows into more advanced courses that support design projects of increasing complexity and scope. In the fifth year, students choose from a range of research design studios that explore critical issues such as sustainable design, future smart cities, informal settlements and responsive architecture.

Learning Goals/Outcomes

- Demonstrate knowledge of liberal arts and sciences with the design of the built environment.
- Apply the value of collaboration, including multidisciplinary collaboration, in solving design problems.
- Synthesize theory, function, technology and aesthetics in an integrated and creative way.
- Understand and respect the people, places and contexts that bear upon the built environment around the world.
- Examine the characteristics of professionalism in architectural practice.
- Practice design as integrated process that respects existing contexts and/or inevitable transformations in the field.

Curriculum: 5 year, 164-166 credits

| Course | Title | Credits |
|------------------------------|---|---------|
| First Year | | |
| FYS 100 | Pathways Seminar | 1 |
| WRIT 101 | Writing Sem I: Written Comm. | 3 |
| ARFD 103 | Visualization 1 | 2 |
| AMST 114 | Course AMST 114 Not Found | 3 |
| SCI 109 or SCI 110 | Sys Thinking & Sustainability or Landscape Ecology | 3 |
| PHYC 101 | General Physics | 3 |
| MATH 103 | Applied Calculus | 3 |
| Select one of the following: | | 3-4 |
| MATH 1XX | Quantitative Reasoning II | |
| General Elective | | |

| Course | Title | Credits |
|--------------------------------|---|----------------|
| ARFD 101 | Design 1 | 4 |
| ARCH 102 | Course ARCH 102 Not Found | 4 |
| Visualization Designated Ele | | 3 |
| Credits | | 32-33 |
| Second Year | | |
| ARCH 213 | Desgn 3: Arch Foundations Stud | 4 |
| ARDS 210 | Tech 1: Materials and Methods | 3 |
| AHST 205 | Built Environ: Global Origins | 3 |
| ARCH 214 | Desgn 4:Arch Foundation Stdiess | 4 |
| ARCH 212 | Tech 2 Passive Sys/Bldg Env | 3 |
| AHST 206 | Built Env in Age of Exploration | 3 |
| ARCH 303 | Structures 1 | 3 |
| ETHCS 2XX | Ethics | 3 |
| WRIT 201 or WRIT 202 | Writing Seminar II: Multi Comm or Writing Seminar II: Multi Comm | 3-4 |
| Credits | | 29-30 |
| Third Year | | |
| ARCH 311 | Design 5 for Architecture | 6 |
| ARCH 313 | Tech 3: Dynamic Envro. Systems | 3 |
| ARCH 304 | Structures 2 | 3 |
| AHST 305 | Early Mod Arch&Int 3 | 3 |
| ARCH 312 | Design 6 | 6 |
| ARCH 326 | Visualization 2: Adv Modeling | 3 |
| AHST 306 | Hist 4 Modn/Comtmp Arch & Int | 3 |
| ARCH 314 | Tech 4:Adv. Buildn Analysis | 3 |
| ADIV 1XX | American Diversity | 3 |
| GCIT 2XX | Global Citizenship | 3 |
| General Electives | | 6 |
| Credits | | 42 |
| Fourth Year | | |
| Nexus DSN Exp. (DSN 7 Options) | | 6 |
| ARCH 412 | Design 8 for Architecture | 6 |
| ARCH 416 | Tech 5: Documentatn & Detailn | 3 |
| ARCH 4XX | Design Theory Seminar | 3 |
| CGIS 300 | Contemporary Global Issues | 3 |
| ISEM 3XX | Integrative Seminar | 3 |
| GDIV 1XX | Global Diversity (or language) | 3 |
| General Electives | | 6 |
| Credits | | 33 |
| Fifth Year | | |
| ARCH 507 | Design 9 for Architecture | 6 |
| ARCH 503 | Professional Management | 3 |
| ARCH 508 | Design 10 for Architecture | 6 |
| PHIL 499 | Philosophies of the Good Life | 3 |
| General Electives | | 12 |
| Credits | | 30 |
| Total Credits | | 166-168 |

Architecture (BArch) & Construction Management (MS) 5+1

Contacts

Program Director: : Gulbin Ozcan-Deniz, PhD, LEED AP BD+C
Email: Gulbin.Deniz@jefferson.edu
 215-291-2914

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/architecture-and-the-built-environment/programs/accelerated-dual-degrees.html>)

Program Description

The combined Bachelor of Architecture and the MS in Construction Management 5+1 Accelerated Dual Degree Program is intended for students who wish to pursue a graduate degree in Construction Management while completing the undergraduate professional program in Architecture. This program enables an undergraduate architecture major to complete four graduate courses required by the MS in Construction Management program for a maximum of twelve graduate course credits, while completing the undergraduate Bachelor of Architecture degree. By overlapping the two programs, a student achieves advanced standing in the 36-credit MS in Construction Management program while an undergraduate and can complete the MSCM degree with an additional 24 credits. Upon graduation from the Bachelor of Architecture program, a student may fulfill the requirements for the MS in Construction Management degree in one year of full-time study, comprising fall, spring, and summer semesters, for a total reduction of one to two semesters of graduate coursework and tuition.

Architecture (BArch) & Historic Preservation (MS) Accelerated 5+1

Contacts

Program Director: John Dwyer, AIA, NCARB; Suzanne Singletary, PhD
Email: John.Dwyer@jefferson.edu; Suzanne.Singletary@jefferson.edu
 215-291-2984; 215-951-2794

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/architecture-and-the-built-environment/programs/accelerated-dual-degrees.html>)

Program Description

The MS Historic Preservation prepares graduates to assume leadership roles within this multifaceted, cross-disciplinary profession. The "Preservation Design" track focuses upon the adaptive reuse of historic structures and the application of preservation methodologies to urban revitalization, sustainable practices that are increasingly essential skills for architects. This interdisciplinary and transdisciplinary combination fosters nimble, flexible problem solving on multiple levels. Working in team and/or studio centered processes, students engage in real world, experiential and collaborative learning. The Accelerated Dual Degree programs prepare students for the complexities of contemporary practice and afford our graduates a competitive edge in today's market.

The combined Bachelor of Architecture and MS Historic Preservation 5+1 Accelerated Dual Degree Option allows an undergraduate Architecture major to complete foundational coursework in Historic Preservation while completing the baccalaureate degree.

Curriculum: 6.5 years

- By sub-matriculating, a student may complete four graduate courses required by the MS Historic Preservation program, for a maximum of twelve graduate course credits, thereby achieving advanced standing in the 49-credit MS Historic Preservation program and

enabling a student to complete the master's degree with an additional 37 credits, depending upon transcript evaluation.

- Upon graduation from the Bachelor of Architecture program, a student may fulfill requirements for the MS Historic Preservation in one year of full-time study

Contact Suzanne Singletary (Suzanne.Singletary@jefferson.edu) or David Kratzer for more information.

Architecture (BArch) & Interior Architecture (MS), 4+1

Contacts

Program Director: Lauren K. Baumbach, RA, AIA, IIDA, NCIDQ, IDEC

Email: Lauren.Baumbach@Jefferson.edu

215-291-2806

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/architecture-and-the-built-environment/programs/accelerated-dual-degrees.html>)

Program Description

The combined BS in Architectural Studies ([https://nam10.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.jefferson.edu%2Facademics%2Fcolleges-schools-institutes%2Farchitecture-and-the-built-environment%2Fprograms%2Finterior-architecture-ms.html&data=05%7C02%7CDavid.Feldman%40jefferson.edu%7C10fe544f62904ebdda6808dc55739bf2%7C55a89906c710436bbc444c590cb67c4a%7C0%7C0%7C638479202229006771%7CUnknown%7CTWFpbGZsb3d8eyJWljiMC4wLjAwMDAilCJQljoiv2luMzliLCJBTil6Ik1hZWVlC3VClmNo%3D%7C0%7C%7C%7C&sdata=1ziuXIA9wWQmZvWRC%2B5jJ5f7RnSGR0x%2BN6yKKnrN30%3D&reserved=0](https://nam10.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.jefferson.edu%2Facademics%2Fcolleges-schools-institutes%2Farchitecture-and-the-built-environment%2Fprograms%2Farchitectural-studies.html&data=05%7C02%7CDavid.Feldman%40jefferson.edu%7C10fe544f62904ebdda6808dc55739bf2%7C55a89906c710436bbc444c590cb67c4a%7C0%7C0%7C638479202229000596%7CUnknown%7CTWFpbGZsb3d8eyJWljiMC4wLjAwMDAilCJQljoiv2luMzliLCJBTil6Ik1hZWVlC3VClmNo%3D%7C0%7C%7C%7C&sdata=ALZDFeHmUtmYnk2GLGPF99cQ3fPirZaFlyhSEuBnhmw%3D&reserved=0)) 4+1 Accelerated Dual Degree Program is intended for students who wish to pursue a graduate degree in Interior Architecture while completing the undergraduate, professional program in Architectural Studies. This program enables an undergraduate Architectural Studies major to complete three graduate courses (totaling 11 credits) required by the MS in Interior Architecture program while completing the undergraduate BS in Architectural Studies degree. The students also take four 3-credit undergraduate interior design courses while completing their BS in Architectural Studies degree. Students also receive a 3-credit advanced standing for INTD-307/AHST-306 History 4: Modern/Contemporary History. By overlapping the two programs, a student achieves advanced standing in the 2-year 49-credit version of the MS in Interior Architecture program while an undergraduate and can complete the MS in Interior Architecture degree with an additional 26 credits. Upon graduation from the BS in Architectural Studies program, a student may fulfill the requirements for the MS in Interior Architecture degree in a summer and

two semesters of full-time study, for a total reduction of two semesters of graduate coursework and tuition.

Curriculum: 6 years

- The 5+1 Accelerated Degree enables an undergraduate Architecture major to complete three graduate courses required by the Master of Interior Architecture program, for a maximum of eleven graduate course credits, while completing the undergraduate Bachelor of Architecture degree.
- By overlapping the two programs, a student achieves advanced standing in the three year, 69-credit Master of Interior Architecture program while an undergraduate and can complete the MSIA degree with an additional 20 credits.
- Upon graduation from the BArch program, a student may fulfill requirements for MSIA in one year of full-time study, comprising fall and spring semesters, for a total reduction of two years of graduate coursework and tuition.

Contact Lauren Baumbach or John Dwyer for more information.

Architecture (BArch) & Real Estate Development (MS) 5+1

Contacts

Program Director: Howard Ways, AICP, ULi, ICSC, APA

Email: Howard.Ways@jefferson.edu

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/architecture-and-the-built-environment/programs/accelerated-dual-degrees.html>)

Program Description

The combined Bachelor of Architecture and the MS in Construction Management 5+1 Accelerated Dual Degree Program is intended for students who wish to pursue a graduate degree in Construction Management while completing the undergraduate professional program in Architecture. This program enables an undergraduate architecture major to complete four graduate courses required by the MS in Construction Management program for a maximum of twelve graduate course credits, while completing the undergraduate Bachelor of Architecture degree. By overlapping the two programs, a student achieves advanced standing in the 36-credit MS in Construction Management program while an undergraduate and can complete the MSCM degree with an additional 24 credits. Upon graduation from the Bachelor of Architecture program, a student may fulfill the requirements for the MS in Construction Management degree in one year of full-time study, comprising fall, spring, and summer semesters, for a total reduction of one to two semesters of graduate coursework and tuition.

Architecture (BArch) & Urban Design (MS)

Contacts

Program Director: John Dwyer, AIA, NCARB; Peng Du, PhD, LEED AP, WELL AP

Email: John.Dwyer@jefferson.edu; Peng.Du@jefferson.edu

215-291-2984; 215-951-0962

Program Description

The Master of Urban Design – Future Cities (MUD) (<https://nam10.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.jefferson.edu%2Facademics%2Fcolleges-schools-institutes%2Farchitecture-and-the-built-environment%2Fprograms%2Furban-design-ms.html&data=05%7C02%7CDavid.Feldman%40jefferson.edu%7Ced6c0909529b49beb13f08dc4dbdac84%7C55a89906c710436bbc444c590cb67c4a%7C0%7C0%7C638473292271224590%7CUnknown%7CTWFpbGZsb3d8eyJWlloiMC4wLjAwMDAiLCJQlJoiV2luMzliLCJBTiI6IkhWwILCjXVCi6Mn0%3D%7C0%7C%7C%7C&reserved=0>) educates the next generation of urban designers, architects and researchers in the development of sustainable, healthy and smart cities and communities. The MUD faculty and students address climate change, public health, pandemics and other challenges by incorporating urban analytics, computational design and smart technologies into urban environments.

The combined Bachelor of Architecture and Master of Urban Design Accelerated Degree option allows an undergraduate Architecture major to complete foundational graduate coursework in Urban Design while completing the baccalaureate degree. By sub-matriculating, a student may complete four graduate courses required by the MUD program, for a maximum of twelve graduate course credits, thereby achieving advanced standing in the 48-credit MUD program and enabling a student to complete the master's degree with an additional 36 credits, depending upon transcript evaluation. Upon graduation from the Bachelor of Architecture program, a student may fulfill requirements for the MUD program in one and a half years of full-time study.

Curriculum: Architecture (BS) & Sustainable Design (MS) Accelerated 5+1

Contacts

Program Director: John Dwyer, AIA, NCARB (BS); ; Rob Fryer, RA, LEED AP BD+C, NCI (MS)

Email: John.Dwyer@jefferson.edu; Robert.Fryer@jefferson.edu

Program Description

The combined Bachelor of Architecture (<https://nam10.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.jefferson.edu%2Facademics%2Fcolleges-schools-institutes%2Farchitecture-and-the-built-environment%2Fprograms%2Farchitecture.html&data=05%7C02%7CDavid.Feldman%40jefferson.edu%7Ced6c0909529b49beb13f08dc4dbdac84%7C55a89906c710436bbc444c590cb67c4a%7C0%7C0%7C638470724244255599%7CUnknown%7CTWFpbGZsb3d8eyJWlloiMC4wLjAwMDAiLCJQlJoiV2luMzliLCJBTiI6IkhWwILCjXVCi6Mn0%3D%7C0%7C%7C%7C&reserved=0>) and the MS in Sustainable Design (<https://nam10.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.jefferson.edu%2Facademics%2Fcolleges-schools-institutes%2Farchitecture-and-the-built-environment%2Fprograms%2Fsustainable-design-ms.html&data=05%7C02%7CDavid.Feldman%40jefferson.edu%7Ced6c0909529b49beb13f08dc4dbdac84%7C55a89906c710436bbc444c590cb67c4a%7C0%7C0%7C638470724244267457%7CUnknown%7C0%7C%7C%7C&reserved=0>)

The 5+1 Accelerated Dual Degree Program is intended for students who wish to pursue a graduate degree in Sustainable Design while completing the undergraduate, professional program in Architecture. This program enables an undergraduate Architecture major to complete four graduate courses required by the MS in Sustainable Design program, for a maximum of twelve graduate course credits, while completing the undergraduate Bachelor of Architecture degree.

By overlapping the two programs, a student achieves advanced standing in the 33-credit MS in Sustainable Design program while an undergraduate and can complete the sustainable design degree with an additional 21 credits. Upon graduation from the Bachelor of Architecture program, a student may fulfill the requirements for the sustainable design degree in one year of full-time study, comprising fall and spring semesters, for a total reduction of one semester of graduate coursework and tuition.

Curriculum Curriculum Architecture (MArch)

Contacts

Program Director: Evan Pruitt, Assoc. AIA

Email: Evan.Pruitt@jefferson.edu

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/architecture-and-the-built-environment/programs/architecture-march.html>)

Program Description

- STEM designated program

The Master of Architecture Program is a first-professional graduate degree designed to prepare students for architectural practice and licensure through the development of critical and creative thinking, technological skills and experience, sustainability focused design knowledge of project management.

Through an innovative approach to interdisciplinary collaboration, students within the MArch program have the opportunity to take four general elective courses in a wide range of fields, gaining the experience and expertise needed to have high-impact careers. With this flexibility, each student has a highly customized course of study throughout the degree program.

Balancing current sustainable design practices along with architectural history and theory, the program culminates with an individually defined and executed final Master's project. Students may choose one of three unique pathways for their final project: the capstone, the co-op or the thesis.

The curriculum can be completed in two to three academic years, depending on academic standing. Advanced standing is determined by the program director and is based on previous education and experience.

Learning Goals/Outcomes

- Address social and cultural issues through informed design solutions that prioritize equity, sustainability and resilience.
- Research, analyze, and compare design propositions in a global environment
- Collaborate and connect with disciplines beyond the expertise of architecture
- Demonstrate the ability to integrate history and theory, sustainable practices, and technology throughout design projects.
- Demonstrate familiarity of diverse needs, values, traditions, abilities, and spatial patterns of different cultures and individuals
- Integrate professional practice with issues of public health, safety, and welfare
- Demonstrate an understanding of the structural, environmental, and other building systems that support a healthy and sustainable environment.
- Demonstrate familiarity with current research and best practices.

Curriculum: 2-3 year, 90 credits or fewer depending on advanced standing

| Course | Title | Credits |
|-----------------------------------|---------------------------------|-----------|
| First Year | | |
| ARCH 611 | Design 1 | 4 |
| ARCH 602 | Visualization 1 | 3 |
| ARCH 632 | Built Env in Age of Exploration | 3 |
| ARCH 641 | Tech 1: Materials & Methods | 3 |
| ARCH 612 | Design 2 | 4 |
| ARCH 622 | Visualization 2 | 3 |
| ARCH 642 | Tech 2: Passive Syst/Bldg Encl | 3 |
| ARCH 651 | Structures 1 | 3 |
| SDN 601 | Princ & Methods of Sust Design | 3 |
| Credits | | 29 |
| Second Year | | |
| ARCH 613 | Design 3 | 4 |
| ARCH 633 | History 2 | 3 |
| ARCH 643 | Tech 3: Dynamic Environ Sys | 3 |
| ARCH 652 | Structures 2 | 3 |
| ARCH 614 | Design 4 | 6 |
| ARCH 624 | Visualization 3: Advanced Mod | 3 |
| ARCH 634 | History 3 | 3 |
| ARCH 644 | Tech 4: Adv Bldg Analysis | 3 |
| Credits | | 28 |
| Third Year | | |
| ARCH 615 | Design 5 for Architecture | 6 |
| ARCH 630 | Architectural Research Methds | 3 |
| ARCH 645 | Tech 5: Documentation/Detail | 3 |
| ARCH 616 | Design 6 | 6 |
| ARCH 661 | Professional Management | 3 |
| Required General Elective Credits | | 12 |
| Credits | | 33 |
| Total Credits | | 90 |

Architecture and Design Research (MS)

Contacts

Program Director: John Dwyer, AIA, NCARB

Email: John.Dwyer@jefferson.edu
215-291-2984

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/architecture-and-the-built-environment/programs/architecture-ms.html>)

Program Description

- **STEM** designated program

The Master of Science in Architecture and Design Research is a post-professional research-based degree designed to provide students who have already earned an accredited undergraduate degree in architecture or related design or built environment discipline with an opportunity to specialize in an area of study that is critical to the profession today. The program prepares students for specialist and consulting positions in the broad field of the built environment, including Architecture, Engineering and Construction.

The MS in Architecture and Design Research offers students the platform to shape a customized education that furthers their architectural experience by developing advanced knowledge and expertise in areas of personal interest and specialization. Led by CABA faculty advisors, students shape a Master's research project. This project can be self-directed or students can work directly with faculty in their specific research areas. Students assemble a suite of electives with faculty from across the College and University to build a graduate level research collaborative foundation for the Master's thesis.

- Customize study by selecting one of four research tracks:
- Material & Design Computation
- Health & Design
- History, Theory & Architectural Pedagogy
- Self-directed Research Area

Students in each track take two required research methods courses and a set of select courses from an approved list of designated electives, and general electives.

Learning Goals/Outcomes

- Critically analyze and synthesize established research theories and methods related to Material & Design Computation, or Health & Design, or Theory, History & Architectural Pedagogy, or other topics related architecture and buildings.
- Collaborate with professionals and academic experts in fields beyond architecture and the built environment.
- Demonstrate expertise in a chosen area of research.
- Demonstrate professional presentation and communication skills.
- Review and critically analyze original research in architecture and related disciplines.
- Conduct cutting-edge, applied research that culminates in a final project that contributes to the fields of architecture and the built environment.

Graduates who are interested in subsequently pursuing further studies in Jefferson's PhD in Architecture and Design Research program can get advanced placement into the PhD program for up to 18 credits which allows to complete the PhD studies in three academic years instead of the typical four-year timeframe. For advanced placement into the PhD program, graduates have to pass an oral and written Assessment Interview which evaluates the student's research statement including a general literature review of his/her broad area of inquiry, thesis and coursework papers, and transcripts.

Curriculum: 2 years, 30 credits

- 30 credits for PhD in Architecture & Design Research exit option

| Course | Title | Credits |
|------------------------|-------------------------------------|-----------|
| First Year | | |
| Fall | | |
| SDN 601 | Princ & Methods of Sust Design | 3 |
| ADR 701 | Research Theories & Methods 1 | 3 |
| Elective | General Elective or Designated | 3 |
| Credits | | 9 |
| Spring | | |
| SDN 622 or ARCH 613 | MS: Living Buildings or Design 3 | 4 |
| ADR 702 | Research Theories & Methods 2 | 3 |
| ARCH 630 | Architectural Research Methods | 3 |
| Elective | General Elective or Designated | 3 |
| Elective | General Elective or Designated | 3 |
| Credits | | 16 |
| Second Year | | |
| Fall | | |
| Elective | General Elective or Designated | 3 |
| Elective | General Elective or Designated | 3 |
| Elective | General Elective or Designated | 3 |
| Credits | | 9 |
| Spring | | |
| ARCH 902 | Graduate Thesis Project II | 3 |
| Credits | | 3 |
| Total Credits | | 37 |

Note:

1. Students are required to take a minimum of 9 credits from an approved list of designated electives
2. No more than 6 credits from the total 33 credits may be from independent study courses and no more than 9 credits from non-CABE courses
3. The Self-Directed Research Track requires:

| Code | Title | Credits |
|----------------------|--|---------|
| ADR 701 & ADR 702 | Research Theories & Methods 1 and Research Theories & Methods 2 | 6 |
| SDN 601 | Princ & Methods of Sust Design | 3 |
| ARCH 902 | Graduate Thesis Project II | 3 |

Electives will be selected in consultation with advisor

4. ARCH 622 Visualization 2 recommended for Material & Design Computation, Health & Design tracks students who do not have required skills in computational modeling (Rhino software)
5. If student research topic involves studio-based methods, 2 graduate electives can be substituted with a Design Research Studio (i.e., ARCH 507 Design 9 for Architecture or ARCH 508 Design 10 for

Architecture) or an independent study format design course (6 credits)

Architecture and Design Research (PhD)

Contacts

Program Director: Kihong R. Ku, DDES

Email: Kihong.Ku@jefferson.edu
215-951-2895

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/architecture-and-the-built-environment/programs/phd-architecture-design-research.html>)

Program Description

- STEM designated program

The PhD in Architecture and Design Research supports interdisciplinary and transdisciplinary research to create new avenues of investigation, expand knowledge bases, solve time-sensitive, contemporary issues across architectural disciplines and yield new insights into the past, present, and future of the field. The focus is on anticipating and shaping the future of practice acknowledging that the architectural discipline is in constant flux that demands the understanding and development of new modes of design research. The PhD involves phases of coursework, qualifying exam, preliminary examination, dissertation proposal, and dissertation. The curriculum requires students to choose a focus area and conduct original research on timely, discipline-specific topics. Students shape a research question and pursue transdisciplinary inquiry, drawing upon the broad array of professional expertise available throughout the University. The final dissertation phase is an individualized, student-driven process, through which each student makes a significant contribution to the body of knowledge in the selected focus area.

This program is offered through three different online/hybrid tracks:

1. **Architecture and Design Research, PhD** – on campus/hybrid: Candidates seek doctoral level research which adopts well-defined models of scholarly inquiry, using research methods accepted by the academic communities in architecture and design research. First two years typically require residency on campus
2. **Architecture and Design Research, Practice-Based PhD** – online/hybrid: Mid- or later career practitioners conduct doctoral level research on their practice or projects that are built or in progress, to develop new knowledge and understanding to support sustained development of the future of practice. The majority of research and coursework is conducted off campus in independent study format, primarily at the candidate's workplace while coursework can be taken in hybrid or online mode based on the student's preference
3. **Architecture and Design Research, SMARTlab Practice-Based PhD** – online/hybrid, Concentration in Inclusive Design and Creative Technology Innovation with SMARTlab: This concentration is offered in collaboration with SMARTlab, University College Dublin, Ireland, and its global network partners. Students work together live and online, with contributors from around the world, to co-create and debate the nature of 'practice-based research'. Students in this track take 9 credits of coursework at SMARTlab's main center which requires in-person participation three times during the first or

second year (in February, July and October) for intensive seminars. These seminars focus on research methods and transdisciplinary critical practices, group critique, feedback, and the relationship between practice and theory. Candidates are encouraged to work together on joint experiments, to meet regularly with experts or join debates online, to share work-in-progress, and to take an active role in contributing and receiving feedback within the group and in sub-groups, known as research clusters

Learning Goals/Outcomes

- Conduct original research to advance, change, or challenge the normative body of scholastic work that defines a given field of study in architecture and the related disciplines
- Design research and apply research methods that address the interdisciplinary challenges of an applied profession which comprises practical applications and scholarly inquiries
- Master knowledge in selected fields of study, from a wide array of topics, supported by the diverse expertise and research agenda of faculty, including, but not limited to, design technology, sustainable architecture, high performance buildings, urban design, smart cities, geospatial technologies, historic preservation, public interest design, design for health, sustainable development, real estate development, and innovative construction among others.
- Acquire and develop competency in teaching or research for academic or practice career paths through assistantship, fellowship opportunities.

Curriculum: 4 years, 48 credits

| Course | Title | Credits |
|---|-------------------------------|----------|
| First Year | | |
| Fall | | |
| ADR 701 | Research Theories & Methods 1 | 3 |
| Elective (SMARTLab Research Training 1) | | 3 |
| General Elective | | 3 |
| Credits | | 9 |
| Spring | | |
| ADR 702 | Research Theories & Methods 2 | 3 |
| Elective (SMARTLab Research Training 2) | | 3 |
| General Elective | | 3 |
| Credits | | 9 |
| Second Year | | |
| Fall | | |
| ADR 898 | Directed Research Seminar | 3 |
| Elective (SMARTLab Research Training 3) | | 3 |
| General Elective | | 3 |
| Credits | | 9 |
| Spring | | |
| ADR 8XX | Dissertation Proposal | 9 |
| Credits | | 9 |
| Third Year | | |
| Fall | | |
| ADR 8XX | Dissertation Research/Writing | 3 |
| Credits | | 3 |
| Spring | | |
| ADR 8XX | Dissertation Research/Writing | 3 |
| Credits | | 3 |
| Fourth Year | | |
| Fall | | |
| ADR 8XX | Dissertation Research/Writing | 3 |
| Credits | | 3 |

| Course | Title | Credits |
|----------------------|-------------------------------|-----------|
| Spring | | |
| ADR 8XX | Dissertation Research/Writing | 3 |
| Credits | | 3 |
| Total Credits | | 48 |

Note: Elective*: Students in Track 3 SMARTlab Practice-Based PhD: Concentration in Inclusive Design and Creative Technology Innovation with SMARTlab, are required to take SMARTlab Research Training courses for this elective, a total of 9 credits. Track 1 and Track 2 students take regular graduate elective courses offered through Thomas Jefferson University coursework.

Architecture Studies (BS) & Real Estate Development (MS), Accelerated 4+1

Contacts

Program Director: Suzanne Singletary, PhD; Howard Ways, AICP, ULI, ICSC, APA

Email: Suzanne.Singletary@jefferson.edu; Howard.Ways@jefferson.edu 215-951-2794; 215-951-2531

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/architecture-and-the-built-environment/programs/accelerated-dual-degrees.html>)

Program Description

- STEM designated program

In today's world, real estate is more than the financial bottom line. By focusing on the "quadruple bottom line" of real estate development — people, planet, profit and placemaking — today developers must combine financial feasibility with environmental sustainability, social consciousness, design excellence and community engagement. Using Philadelphia and its surroundings, students address real estate development projects ranging from single buildings to entire districts. By sub-matriculating in the master's program, Architectural Studies majors may complete foundational coursework required in the MS Real Estate Development program, completing a maximum of 12 credits towards the graduate degree, thereby achieving advanced standing in the master's program while completing the baccalaureate degree. Upon graduation from the BS Architectural Studies, a student may fulfill remaining requirements for the MS Real Estate Development in one year of full-time study.

Curriculum: 5 years

- Students may elect to pursue a 24-credit track in Real Estate Development, consisting of four graduate real estate development courses and four undergraduate business courses.
- Students enrolled in the pre-professional BS Architectural Studies program may achieve professional credentials by enrolling in this 4+1 Accelerated Dual Degree option

Contact Suzanne Singletary for more information.

Construction Management (BS)

Contacts

Program Director: Gulbin Ozcan-Deniz, PhD, LEED AP BD+C
Email: Gulbin.Deniz@Jefferson.edu
 215-951-2914
Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/architecture-and-the-built-environment/programs/construction-management.html>)

Program Description

- **Accreditation:** ABET-ANSAC
- **STEM** designated program

The Bachelor of Science in Construction Management is a STEM (Science, Technology, Engineering, and Math) program with the mission to provide students with a broad practice-oriented understanding of construction technology, business, architecture, and engineering, and with specific emphasis on the management of the construction process from project inception to closeout. The program is designed to equip students and graduates with the knowledge and the technical, administrative, and communication skills, necessary to succeed in the construction industry.

Construction managers play an integral role in the development, construction and maintenance of commercial, residential, institutional and industrial buildings, as well as civil and transportation infrastructure. Degree programs in construction management have become the preferred higher education option for students interested in leadership positions within this multifaceted and competitive field.

The curriculum combines traditional business management and construction-specific coursework with a comprehensive liberal arts and sciences program of studies to acquaint students with the full business model of construction management. Graduates of the Construction Management program will have the knowledge, as well as the technical, administrative and communication skills, necessary to succeed in all sectors of the construction industry.

The teaching faculty brings a wide variety of rich industry experience to the program. Many are current practitioners who bring their daily professional challenges to the classroom, enriching the student experience.

The proximity to Philadelphia’s active urban economy presents opportunity for a wide variety of jobsite experiences and exposure to innovative, state-of-the-art practices.

Housed in the University’s highly regarded College of Architecture and the Built Environment, the program allows students to learn collaboratively with students in the Architecture, Interior Design, Architectural Studies, Geodesign and Landscape Architecture programs.

Graduates will have the skills necessary to manage the construction process from project conception to closeout with respect to scope, schedule, budget, quality, risk and safety, and the environment. The Construction Management Core Curriculum stresses the following topics:

- Construction Project Management from pre-design through commissioning

- Project life-cycle and sustainability
- Health and safety, accident prevention, and regulatory compliance
- Materials, labor, and methods of construction
- Project Delivery methods
- Finance and accounting principles
- Cost management including plan reading, quantity takeoffs and estimating
- Planning and scheduling
- Law, contract document administration and dispute prevention and resolution
- Leadership and managing people
- Business and communication skills

The program produces graduates familiar with industry-specific management practices who have developed an ethical, global and sustainable problem-solving approach. Thus, our graduates will be prepared to meet the challenges of a variety of career options which include: construction project management, construction field management, construction project estimating, scheduling, project supply chain management, real estate management, specialty contract services management, capital projects management, installation management, facilities management, and construction material and equipment sales.

Upper-level courses offer students the opportunity to collaborate and innovate across these disciplines, incorporating the business management skills as well as the liberal arts core to explore innovative approaches to hands-on project management challenges.

Program Educational Objectives

- Collaborate across disciplines of construction project stakeholders and appreciate the benefit of that collaboration.
- Communicate effectively with a variety of audiences, such as owners, design professionals and code officials, using appropriate media
- Find and evaluate relevant cost, schedule, quality and safety data based on sound analysis.
- Create sound and innovative approaches to challenges faced by construction project teams
- Identify and evaluate the ethical choices faced by construction management professionals and formulate value-based responses.

Accreditation

The Bachelor of Science in Construction Management program is accredited by the Applied and Natural Science Accreditation Commission (ANSAC) of ABET. Details can be found at www.abet.org (<http://www.abet.org/>). The ABET-accredited Construction Management program prepares students for entry-level construction manager/project manager/project engineer jobs, for advanced study, and to apply for memberships and scholarships in professional Construction Management organizations.

Curriculum: 4 Years, 122-124 Credits

| Course | Title | Credits |
|-------------------|------------------------------|---------|
| First Year | | |
| FYS 100 | Pathways Seminar | 1 |
| WRIT 101 | Writing Sem I: Written Comm. | 3 |

| Course | Title | Credits |
|------------------------------------|--------------------------------------|------------|
| AMST 114 | Course AMST 114 Not Found | 3 |
| SCI 109 | Sys Thinking & Sustainability | 3 |
| MATH 1XX | Quantitative Reasoning I | 3 |
| Select one of the following: | | |
| PHYC 201 | Physics I | 3 |
| MATH 1XX | Quant Reasoning II | 3 |
| Elective | | |
| CMGT 101 | Construction Graphics | 3 |
| CMGT 102 | Intro the Constructn Industry | 3 |
| CMGT 104 | Intro to Estimating and Schdl | 3 |
| ACCT 101 | Financial Accounting | 3 |
| Credits | | 31 |
| Second Year | | |
| ETHC 1XX | Ethics | 3 |
| WRIT 201 | Writing Seminar II:Multi Comm | 3 |
| Select one of the following: | | |
| GDIV 1XX | Global Diversity or Language | 3 |
| CMGT 200 | Const Proj Plann & Scheduling | 3 |
| CMGT 202 | Const Cost Estimatr & Budgtn | 3 |
| Global Language | | 3 |
| CMGT 204 | Behavior of Materials | 3 |
| CMGT 206 | Building Systems | 3 |
| CMGT 208 | Materials & Mthds of Construc | 3 |
| ABA 201 | Intro to Business Analytics | 3 |
| Credits | | 30 |
| Third Year | | |
| ADIV 2XX | American Diversity | 3 |
| CGIS 300 | Contemporary Global Issues | 3 |
| Select one of the following: | | |
| GCIT 2XX | Global Citizenship or World Language | 3 |
| ISEM-3XX | Integrative Seminar | 3 |
| Global Language | | 3 |
| CMGT 300 | Constructn Acct/Cost Control | 3 |
| CMGT 302 | Construction Contract Admin. | 3 |
| CMGT 304 | Construc Safety & Risk Magmt. | 3 |
| CMGT 306 | Construction Site Operations | 3 |
| CMGT 310 | Constructn Surveying | 3 |
| ECON 205 | Macroeconomics | 3 |
| or ECON 206 | or Microeconomics | |
| BLAW 301 | Business Law | 3 |
| Credits | | 36 |
| Fourth Year | | |
| PHIL 499 | Philosophies of the Good Life | 3 |
| CMGT 450 | Construction Mgmt Seminar | 3 |
| CMGT 499 | Construction Capstone Project | 3 |
| Construct Mgt. Ele. 1 (designated) | | 3 |
| Construct Mgt. Ele. 2 (designated) | | 3 |
| FIN 301 | Financial Management | 3 |
| Business Electives | | 6 |
| General Electives | | 3 |
| Credits | | 27 |
| Total Credits | | 124 |

Construction Management (Graduate Certificate)

Contacts

Program Director: Gulbin Ozcan-Deniz, PhD, LEED AP BD+C
Email: Gulbin.Deniz@jefferson.edu

215-951-2914

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/architecture-and-the-built-environment/programs/graduate-certificates/construction-management.html>)

Program Description

- **STEM** designated program

The twelve-credit Graduate Certificate in Construction Management will train students to assume leadership roles within this increasingly multifaceted and cross-disciplinary industry. Construction Managers must demonstrate mastery of a broad spectrum of skill sets and knowledge bases to plan and supervise the construction process as applied to commercial, residential and infrastructural building projects. The mission of the Graduate Certificate in Construction Management is to provide students with a broad-based, practice-oriented understanding of construction technology, sustainable principles and business practices.

The target audience for this certificate program comprises two distinct groups. One group includes graduates of professional programs, including Architecture, Interior Architecture, Landscape Architecture, and Business Administration, seeking to build knowledge and credentials in the field of construction management; and the second group includes professionals already working in the construction industry who would like to update their knowledge of new and emerging techniques and concepts. Students will be able to take classes either online or on campus on a part-time basis to coordinate with work schedules.

Learning Goals/Outcomes

- Evaluate relevant cost, schedule, quality, and safety data; formulate and defend management decisions based on sound analysis
- Lead and/or effectively contribute to the success of complex project management teams of stakeholders such as owners, design professionals, code officials, colleagues and subordinates
- Formulate policies and procedures that anticipate challenges faced by construction project management teams
- Identify and evaluate the ethical choices faced by construction management professionals and formulate policies that promote ethical choices
- Foster and contribute in collaboration across all disciplines of construction project stakeholders and appreciate the benefit of collaboration.

Curriculum: 12 Credits

| Code | Title | Credits |
|------------------------|--------------------------------|-----------|
| Core Curriculum | | |
| CMGT 600 | Constructn Estimatr & Schedn | 3 |
| CMGT 603 | Const Law: Roles & Responsibi | 3 |
| CMGT 604 | Project Finance & Cost Control | 3 |
| CMGT 606 | Construction Risk Management | 3 |
| Total Credits | | 12 |

Construction Management (MS)

Contacts

Program Director: Gulbin Ozcan-Deniz, PhD, LEED AP BD+C

Email: Gulbin.Deniz@jefferson.edu

215-951-2914

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/architecture-and-the-built-environment/programs/construction-management-ms.html>)

Program Description

- **STEM** designated program

The MS in Construction Management program is designed to provide students with the knowledge and skills to plan and manage each phase of the construction process as applied to complex commercial, infrastructure, and residential building projects. The mission of the program is to offer a comprehensive construction and management education consistent with the mission of the University and the College of Architecture and the Built Environment to improve the quality and sustainability of the construction industry and thus the built environment.

Graduates will have the skills necessary to manage the construction process from project conception to closeout with respect to scope, schedule, budget, quality, risk and safety, and the environment. The Construction Management Core Curriculum stresses the following topics:

- Leadership, communication, problem solving, and business management skills
- Project Management from feasibility to commissioning and closeout
- Project life-cycle and sustainability
- Construction law, contract administration and regulatory compliance
- Types and behavior of construction materials and structures
- Project delivery methods
- The means and methods of construction
- Finance and accounting principles and procedures for construction
- Planning, scheduling, and methods of integrated project control
- Estimating, budgeting, purchasing, and cost control
- Safety, health, environmental and quality management of the construction process

Learning Goals/Outcomes

- Evaluate relevant cost, schedule, quality, and safety data; formulate and defend management decisions based on sound analysis
- Lead and/or effectively contribute to the success of complex project management teams of stakeholders such as owners, design professionals, code officials, colleagues and subordinates
- Formulate policies and procedures that anticipate challenges faced by construction project management teams
- Identify and evaluate the ethical choices faced by construction management professionals and formulate policies that promote ethical choices

- Foster and contribute in collaboration across all disciplines of construction project stakeholders and appreciate the benefit of collaboration.

Areas of study include: project planning, estimating, scheduling, risk management, construction information modeling techniques and documentation, legal and contractual issues, project finance and cost control, and health and safety. Moreover, a key component of the program is the integration of techniques, materials and methods of sustainable building into the construction process. Future construction managers will be trained in the principles of sustainability and Leadership in Energy and Environmental Design (LEED) standards. By definition, construction management is a cross-disciplinary practice that synthesizes aspects from the fields of business, architecture, engineering and construction. This degree program provides a balance among various skill sets with emphasis upon practical application, thereby ensuring that a graduate has the necessary knowledge base to be simultaneously successful on a construction site and in an office setting.

Curriculum: 2 Year, 36 Credits

| Course | Title | Credits |
|---|--------------------------------|-----------|
| First Year | | |
| CMGT 600 | Constructn Estimatr & Schedn | 3 |
| CMGT 602 | Constructn Informatn Modeling | 3 |
| CMGT 603 | Const Law: Roles & Responsibi | 3 |
| CMGT 604 | Project Finance & Cost Control | 3 |
| CMGT 606 | Construction Risk Management | 3 |
| SDN 601 | Princ & Methods of Sust Design | 3 |
| Credits | | 18 |
| Second Year | | |
| CMGT 612 | Ad Constn. Proj. Management | 3 |
| Designated Electives (CMGT 608 or any SDN) | | 3 |
| CMGT 618 | Heavy Const Principle&Practice | |
| Any SDN | | |
| CMGT 614 | Materials & Mthds of Construc | |
| Designated Elective (CMGT 614, CMGT 618, MRE 601 or any IMBA) | | 3 |
| CMGT 618 | Heavy Const Principle&Practice | |
| MRE 601 | Sustain Real Estate Dev Proc | |
| CMGT 901 | Master's Project | 3 |
| General Electives | | 6 |
| Credits | | 18 |
| Total Credits | | 36 |

Construction Mgt. (MS) & Real Estate Development (MS) 1+1

Contacts

Program Director: Gulbin Ozcan-Deniz, PhD, LEED AP BD+C; Howard Ways, AICP, ULI, ICSC, APA

Email: Gulbin.Deniz@jefferson.edu; Howard.Ways@jefferson.edu
215-951-2914; 215-951-2531

Program Director: Howard Ways III, AICP

Email: Howard.Ways@jefferson.edu

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/architecture-and-the-built-environment/programs/accelerated-dual-degrees.html>)

Program Description

- **STEM** designated program

This Accelerated Dual Degree is intended for students who wish to pursue a distinct graduate degree in both Construction Management and Real Estate Development. Rather than complete each curriculum separately and obtaining the degrees independently, this option affords students the opportunity to explore the synergies between these disciplines by intersecting coursework from each program. Once accepted into the 1+1 Accelerated Dual Degree Option, a student enrolls in either the M.S. Construction Management or in the M.S. Real Estate Development and sub-matriculates in the other program. The 1+1 Accelerated Dual Degrees capitalize upon coursework shared by both programs and upon the flexibility of elective courses

Layering an additional area of expertise to their primary area of study affords students the credentials and competencies to tackle a broad panorama of projects and to address pressing environmental and community-based challenges. Interdisciplinary and transdisciplinary educational models foster nimble, flexible problem solving on multiple levels. Working in team and/or laboratory centered processes, students engage in problem-based, experiential and collaborative learning. Such acumen not only prepares students for the complexities of the construction and real estate development industries, but also trains future leaders in these professions.

Curriculum: 2+ Years

- Both degrees can be accomplished in two-plus years of full-time study, comprising a total reduction of twelve credits or one semester of graduate coursework and tuition.
- Students may complete both programs in 61 credits, instead of the 73 credits required if the programs were pursued separately.

Contact Gulbin Ozcan-Deniz or Howard Ways for more information.

Construction Mgt. (MS) & Sustainable Design (MS) , 1+1

Contacts

Program Director: Gulbin Ozcan-Deniz, PhD, LEED AP BD+C; Robert Fryer, RA, LEED AP BD+C, NCI

Email: Gulbin.Deniz@jefferson.edu; Robert.Fryer@jefferson.edu
215-951-2914; 215-951-5634

Program Director: Rob Fryer, MA, LEED AP, BD&C, NCI

Email: Robert.Fryer@jefferson.edu

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/architecture-and-the-built-environment/programs/accelerated-dual-degrees.html>)

Program Description

This unique full-time, accelerated dual degree option is intended for students with a passion for both sustainable design and construction practices. Rather than completing both graduate curricula separately and obtaining the degrees independently, this option allows students to better capitalize on the synergies between the two disciplines and increase their competitive edge while reducing tuition cost and time. This 1+1 degree option provides a means for students to fully explore

both disciplines in as little as two years, resulting in the award of both degrees.

The 1+1 Accelerated dual degree option allows students to customize their education, breaking outmoded disciplinary silos and expanding professional opportunities for our graduates. The combination of Construction Management and Sustainable Design, two complementary disciplines, leverages the intersections between these areas of expertise, providing graduates with the knowledge and skills to combine ecological concerns with building science.

Curriculum: 2 Years

- Both degrees can be accomplished in two-years of full-time study, comprising a total reduction of nine credits or one semester of graduate coursework and tuition.
- Students may complete both programs in 60 credits, instead of the 69 credits required if the programs were pursued separately.

Contact Rob Fryer or Gulbin Ozcan-Deniz for more information.

Design of Living Buildings (Graduate Certificate)

Contacts

Program Director: Robert Fryer, RA, LEED AP BD+C, NCI

Email: Robert.Fryer@jefferson.edu
215-951-5634

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/architecture-and-the-built-environment/programs/sustainable-design-ms/degree-options/graduate-certificates/design-of-living-buildings.html>)

Program Description

- **STEM** designated program

The Living Building Challenge is a green building certification program and sustainable design framework that visualizes the ideal for the built environment. This graduate certificate focuses on the design and certification of living buildings with a focus on the regenerative design of spaces and places that feature a strong connection to "light, air, food, nature and community." As a student in this program, you will begin with an overall understanding of the sustainable design movement while also studying the "basics" of the Living Building Challenge. You will move on to study the various technical aspects of meeting the Challenge, with an emphasis on simulation, calculation, and validation. The Living Building Design Studio features interaction with industry professionals who have had direct experience in designing and certifying Living Building Challenge projects and ends with the design of a living building.

Learning Goals/Outcomes

- Gain understanding of the sustainable design movement while also studying the "basics" of the Living Building Challenge
- Study the various technical aspects of meeting the Challenge, with an emphasis on simulation, calculation, and validation
- Integrate and apply methodology in the design of a living building.
- Apply critical skills including the LEED® rating system, Passive House design, energy and daylight modeling and life cycle assessment.

- Credits earned through certificate courses are transferable into the MS in Sustainable Design program.

Curriculum: 12 Credits

| Code | Title | Credits |
|------------------------|--------------------------------|-----------|
| Core Curriculum | | |
| SDN 601 | Princ & Methods of Sust Design | 3 |
| SDN 602 | Adaptive & Resilient Dsgn Sdio | 3 |
| SDN 622 | MS: Living Buildings | 4 |
| SDN 624 | SC: Sust Syst for Living Bldgs | 2 |
| Total Credits | | 12 |

Design of Resilient Communities (Graduate Certificate)

Contacts

Program Director: Robert Fryer, RA, LEED AP BD+C, NCI

Email: Robert.Fryer@jefferson.edu

215-951-5634

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/architecture-and-the-built-environment/programs/sustainable-design-ms/degree-options/graduate-certificates/design-of-resilient-communities.html>)

Program Description

- STEM designated program

Resilient Design practices are at the forefront of design thinking because they acknowledge that our efforts to stem the tide of climate change have not been enough. The harsh reality is that design in the 21st century will be focused on adaption to climate change.

Learning Goals/Outcomes

- Resilient design is an area of study that builds special skills, knowledge and approaches to guide organizations to continue to flourish within a challenging environmental, social and economic challenges.
- The Certificates offer a wide array of critical skills including the LEED® rating system, Passive House design, energy and daylight modeling and life cycle assessment.
- Credits earned through certificate courses are transferable into the MS in Sustainable Design program.

Curriculum: 12 Credits

| Code | Title | Credits |
|------------------------|--------------------------------|-----------|
| Core Curriculum | | |
| SDN 601 | Princ & Methods of Sust Design | 3 |
| SDN 602 | Adaptive & Resilient Dsgn Sdio | 3 |
| SDN 621 | MS: Resilient Cities & Comms | 4 |
| SDN 623 | SC: Eco Sys for Resilnt Cities | 2 |
| Total Credits | | 12 |

Geographic Information Systems (Graduate Certificate)

Contacts

Program Director: Peng Du, Ph.D., LEED AP, WELL AP, Assoc. AIA

Email: Peng.Du@jefferson.edu

215-951-0962

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/architecture-and-the-built-environment/programs/graduate-certificates/geographic-information-systems.html>)

Program Description

- STEM designated program

The mission of the Graduate Certificate in Geographic Information Systems (GIS) is to provide students with a broad-based, practice-oriented proficiency in advanced geospatial technology and spatial analytics.

Learning Goals/Outcomes

Prepare students to assume technology leadership roles in the use of Advanced GIS and Spatial Analytics, primarily within the allied design professions including Landscape Architecture, Architecture, Planning and Engineering, but also extending to more traditional spatial analysis roles. GIS professionals must demonstrate mastery of a broad spectrum of advanced geospatial skill sets and knowledge bases to plan and lead in the use of geospatial technology for projects related to the built environment.

Curriculum: 12 Credits

| Code | Title | Credits |
|------------------------------|--------------------------------|-----------|
| Core Curriculum | | |
| GEOD 610 | Introduction to GIS | 3 |
| GEOD 615 | Adv GIS:Urbn Spctl Anlytcs 1 | 3 |
| GEOD 617 | Adv GIS: Urb Spial Anlytcs II | 3 |
| Select one of the following: | | 3 |
| GEOD 625 | Inter GIS Tech for Design &Dev | |
| GEOD 600 | 3D Modeling for Geodesign | |
| Total Credits | | 12 |

Geospatial Technology for Geodesign (Graduate Certificate)

Contacts

Program Director: Peng Du, Ph.D., LEED AP, WELL AP

Email: Peng.Du@jefferson.edu

215-951-0962

Program Description

- STEM designated program

The mission of the Graduate Certificate in Urban Analytics and Geodesign is to enable students with a broad range of practice-oriented proficiencies in these cutting-edge technologies for design.

Learning Goals/Outcomes

Prepare students to assume leadership technology roles in the use of 3D parametric modeling and advanced GIS applied to the allied design professions including Landscape Architecture, Architecture, Planning and Engineering.

Curriculum: 12 Credits

| Code | Title | Credits |
|------------------------------|--------------------------------|-----------|
| Core Curriculum | | |
| GEOD 610 | Introduction to GIS | 3 |
| GEOD 600 | 3D Modeling for Geodesign | 3 |
| GEOD 616 | Information Modeling | 3 |
| Select one of the following: | | 3 |
| GEOD 615 | Adv GIS:Urbn Spctl Anlytcs 1 | |
| GEOD 617 | Adv GIS: Urb Spial Anlytcs II | |
| GEOD 625 | Inter GIS Tech for Design &Dev | |
| Total Credits | | 12 |

Graduate Concentrations

Program Description

Certain CABE graduate programs require that a student choose a concentration to establish a focus area within the primary discipline. Students enrolled in a master's program that does not require a concentration may elect to declare a concentration in order to pair their major discipline with another architecture related field. A concentration allows students to group electives together in a meaningful way, providing a set of courses that provides supplemental study in a particular subject area. Options for graduate concentrations are determined by the academic programs and consist of a minimum of nine (9) credits in the subject area. Guidelines for available concentrations are below:

- A student may not use the same course for credit in both the primary discipline and area of concentration. In other words, only general elective credits can be applied to the concentration.
- Concentrations typically consist of at least one required course, plus a selection of courses from which the student may choose.

Any substitute elective course from within the concentration must be approved by the program director of the area of concentration.

Construction Management, 9 Credits

This concentration introduces construction management concepts and principles as applied to contemporary practice and investigates the intersecting roles of construction manager, architect, client, and general contractor. Topics encompass planning, programming and documentation from pre-construction to project close-out; legal aspects relative to environmental protection, contract documents; insurance and bonds; labor relations and inspection; project control; heavy construction skills and ethics; and the development of analytical and communication skills.

| Code | Title | Credits |
|--------------------------------|--------------------------------|-----------|
| Select three of the following: | | 9 |
| CMGT 607 | Intro to Construction Proj Mgt | 3 |
| CMGT 609 | Construction Site Operations | 3 |
| CMGT 401 | Codes and Specifications | 3 |
| CMGT 614 | Materials & Mthds of Construc | 3 |
| CMGT 618 | Heavy Const Principle&Practice | 3 |
| Total Credits | | 24 |

Geographic Information Systems (GIS), 9 Credits

This concentration in GIS (Geographic Information Systems) provides students with the opportunity to learn and apply advanced spatial techniques and spatial thinking to various disciplines related to design of the built environment. Courses span introduction to advanced concepts and include desktop as well as internet technology

| Code | Title | Credits |
|------------------------------|---------------------------------------|----------|
| GEOD 610 | Introduction to GIS | 3 |
| Select two of the following: | | 6 |
| GEOD 615 | Adv GIS:Urbn Spctl Anlytcs 1 (Fall) | |
| GEOD 617 | Adv GIS: Urb Spial Anlytcs II (Fall) | |
| GEOD 625 | Inter GIS Tech for Design &Dev (Fall) | |
| Total Credits | | 9 |

Historic Preservation/Urban Revitalization, 9 Credits

This concentration provides a foundation in the field of historic preservation. Courses cover contemporary practice and fieldwork, urban revitalization and sustainability issues, building conservation, methods of archival research, standards for documentation, American architectural traditions, as well as design considerations in the adaptive reuse of historic structures.

| Code | Title | Credits |
|------------------------------|--------------------------------|-------------|
| MHP 621 | Issues of Contemporary Preserv | 3 |
| Select two of the following: | | 6-7 |
| MHP 602 | Uncovering the Past: Tools, Me | |
| MHP 624 | Architectural Forensic and Doc | |
| MHP 626 | Building Conservation | |
| MHP 603 | Rest & Rehab of Modernst Bldgs | |
| MHP 672 | Course MHP 672 Not Found | |
| MHP 671 | Course MHP 671 Not Found | |
| Total Credits | | 9-10 |

Interior Architecture, 9 Credits

This concentration introduces students to both theory and application of interior architecture in the built environment. Students will be grounded in the methodologies of interior architecture, focus on the design and construction of the built environment through an interiors perspective, consider how human behavior influences the built environment and consider how the well-being of humans and the natural environment influences interior design. Students will also learn

how the interaction of space, form, light, color, materiality and furniture transforms our lived experience in buildings.

| Code | Title | Credits |
|--------------------------------|---|----------|
| Select three of the following: | | 9 |
| IARC 603 | Hist of Design 2 for Int Arch | |
| IARC 604 | Vis 4: Constuction Documentation | |
| IARC 610 | Text & Materials for Interiors | |
| IARC 607 | Interior Building Technology (interior detailing) | |
| IARC 608 | Light and Color (lighting design) | |
| IARC 614 | Furniture Design | |
| IARP 502 | Design 2 for Interior Arch | |
| IARP 601 | Course IARP 601 Not Found | |
| IARC 602 | Design 4 for Interior Arch | |
| Total Credits | | 9 |

Real Estate Development, 9 Credits

This concentration introduces the economic, social and physical issues inherent in environmentally and fiscally sustainable real estate and land-use development. Through real-world case studies presented by leading developers, coursework encompasses market analysis and valuation, finance and investment, legal issues of ownership and land-use, public-private partnerships, urban regeneration and adaptive reuse, construction science and management, in addition to multiple design and development paradigms and their long-term local, national, and global impacts. Sustainable strategies inform a curriculum sensitive both to the ethical dimension of development and to the parameters of a capital-driven market.

| Code | Title | Credits |
|------------------------------|--------------------------------|----------|
| MRE 601 | Sustain Real Estate Dev Proc | 3 |
| Select two of the following: | | 6 |
| MRE 620 | Case Study Studio:UrbanRevital | |
| MRE 638 | Case Study:Sust Afford Housing | |
| MRE 630 | Market Analysis and Valuation | |
| MRE 615 | Real Eastate Fin & Investment | |
| MRE 635 | Public Private Partnerships | |
| MRE 625 | Real Estate Law & Eth Pract | |
| Total Credits | | 9 |

Sustainable Design, 9 Credits

The concentration introduces students to the theory of sustainability and how it is applied in the built environment. Students will be grounded in the methodologies of sustainable design, learn to measure, predict and design for thermal comfort, adaptable opportunities and resilience across scales. Students will also learn how to design and calculate sustainable systems, and learn to evaluate, compare, perform life cycle analyses of materials.

| Code | Title | Credits |
|--------------------------------|---|---------|
| Select three of the following: | | 9 |
| SDN 601 | Princ & Methods of Sust Design (Fall or Spring) | |
| SDN 602 | Adaptive & Resilient Dsgn Sdio (Fall online) | |
| SDN 603 | Sustainable Building Systems (Spring online) | |

| Code | Title | Credits |
|----------------------|---------------------------------|----------|
| SDN 604 | Life Cycle Assess & Circ Ecnmry | |
| Total Credits | | 9 |

Sustainable Leadership, 9 Credits

This concentration prepares students to design and deliver sustainability initiatives in current or future organizations. With the curriculum's project-based approach, students will build vital skills in problem scoping, systems modeling, solution framing and change management and immediately apply these skills to the sustainability challenges facing assigned organizations or clients.

| Code | Title | Credits |
|--------------------------------|--------------------------------|----------|
| Select three of the following: | | 9 |
| SDN 601 | Princ & Methods of Sust Design | |
| SDN 625 | Env Imp Analysis and Sys Think | |
| SDN 626 | Models & Metrics for Sust Orgs | |
| SDN 627 | Sust Adv & Chg Mgmt | |
| Total Credits | | 9 |

Green Building Operations (Graduate Certificate)

Contacts

Program Director: Robert Fryer, RA, LEED AP BD+C, NCI

Email: Robert.Fryer@jefferson.edu
215-951-5634

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/architecture-and-the-built-environment/programs/sustainable-design-ms/degree-options/graduate-certificates/green-building-operations.html>)

Program Description

- **STEM** designated program

The Graduate Certificate in Green Building Operations is designed to educate students about the design and management of mainstream green buildings. With this extremely flexible graduate certificate, you will acquire the specific skills and knowledge that perfectly compliment your career goals.

Learning Goals/Outcomes

- The Certificates offer a wide array of critical skills including the LEED® rating system, Passive House design, energy and daylight modeling and life cycle assessment.
- Credits earned through certificate courses are transferable into the MS in Sustainable Design program.

Curriculum: 12 Credits

| Code | Title | Credits |
|---|--------------------------------|---------|
| Core Curriculum | | |
| SDN 601 | Princ & Methods of Sust Design | 3 |
| Select three of the following: ¹ | | 9 |
| SDN 602 | Adaptive & Resilient Dsgn Sdio | |
| SDN 603 | Sustainable Building Systems | |

| Code | Title | Credits |
|----------------------|---------------------------------|-----------|
| SDN 604 | Life Cycle Assess & Circ Econmy | |
| SDN 609 | Building Info Modeling for SD | |
| Total Credits | | 12 |

¹ The MSSD faculty will advise you to help select the best courses for your career

Historic Preservation (Graduate Certificate)

Contacts

Program Director: Suzanne Singletary, PhD

Email: Suzanne.Singletary@jefferson.edu
215-951-2794

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/architecture-and-the-built-environment/programs/graduate-certificates/historic-preservation.html>)

Program Description

- STEM designated program

The twelve-credit Graduate Certificate in Historic Preservation will prepare students to assume leadership roles within this multifaceted, cross-disciplinary profession. Curricular emphasis upon adaptive reuse of historic structures and the application of preservation methodologies to urban revitalization will appeal to working professionals from a broad spectrum of disciplines.

Preservation methodologies applied to projects at multiple scales, ranging from the micro level of individual structures to the macro level of preservation planning, will equip students with the skills, knowledge and experience to address pressing environmental and community-based challenges. In "real world" projects, students implement preservation principles and methods relative to both pre-modern and modern buildings and technologies.

The following are suggested courses for the Graduate Certificate in Historic Preservation, although course substitutions are possible at the discretion of the Program Director.

Learning Goals/Outcomes

- Implement physical documentation and forensic analysis in the assessment of individual structures and sites as intrinsic to the current practice of architecture and preservation.
- Acquire competency in the application of analogue and digital techniques and software, particularly freehand sketching, constructed hand drawn drawings, model building, and CAD, 3-D modeling, LIDAR, Photogrammetry, and GIS.
- Assess and implement sustainable methods in the retrofitting of historic structures.
- Execute a holistic approach to preservation planning, as applied to the adaptive reuse of historic buildings and their role in urban regeneration via real world, community-based projects
- Evaluate preservation strategies, policies and methods as part of broad historic and social contexts

Curriculum: 12 Credits

| Code | Title | Credits |
|------------------------|--------------------------------|-----------|
| Core Curriculum | | |
| MHP 602 | Uncovering the Past: Tools, Me | 3 |
| MHP 621 | Issues of Contemporary Preserv | 3 |
| MHP 624 | Architectural Forensic and Doc | 3 |
| One of the Following | | 3 |
| ARCH 671 | Vernacular Architecture | |
| ARCH 672 | American Architecture | |
| MHP 626 | Building Conservation | |
| Total Credits | | 12 |

Historic Preservation (MS)

Contacts

Program Director: Suzanne Singletary, PhD

Email: Suzanne.Singletary@jefferson.edu
215-951-2794

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/architecture-and-the-built-environment/programs/historic-preservation-ms.html>)

Program Description

- STEM Designated Program

Jefferson's MS in Historic Preservation not only prepares graduates to preserve historic buildings and sites, but also to re-envision and re-purpose the past to serve present and future needs. The curriculum foregrounds adaptive reuse of historic structures as well as in-depth analysis through historical research and graphic documentation. Students develop skills fundamental to assess the condition and evolution of buildings and promote the ways historic structures order the urban fabric, contribute to healthy communities, and facilitate "place-making" as a catalyst for community revitalization. Students apply new and rapidly evolving digital technologies for managing, documenting and interpreting culturally significant structures and places.

Philadelphia, the first UNESCO World Heritage City in the US, is a living laboratory of architectural styles and periods, offering a wealth of real-world projects and internships. Study Away Options—Spring semester studying preservation of Modernism at Bauhaus, Anhalt University, Dessau, Germany and research at Terragni Archives, Como Italy.

Customize study by selecting one of two tracks:

- Research and Documentation
- Preservation Design

Learning Goals/Outcomes

- The Master of Science in Historic Preservation (MSHP) builds the essential skills that preservationists need to meet the challenges facing our cities and planet.
- The MSHP program supports the adaptive reuse of historic structures as a sustainable solution to the environmental crisis and as a means to regenerate communities.

- A faculty of scholars and practicing professionals share their unique perspectives, experiences and expertise, providing insight and instruction in current preservation theory and practice.
- Foundational coursework in archival research, documentation, forensics, conservation and condition assessment of heritage architecture and sites lays the groundwork for advanced study.
- MSHP students learn analog and digital techniques and software, particularly LIDAR, Photogrammetry, and GIS to document and assess heritage buildings and sites.
- An internship provides hands-on, real-world experience and networking opportunities to further your career.
- MSHP students customize their education by selecting one of two tracks: Preservation Design or Documentation and Research and may choose a concentration from graduate programs within the college—including Sustainable Design, Geographic Information Systems, Urban Design, among others.

Curriculum: 2 Year, 49 Credits

| Course | Title | Credits |
|----------------------------|---------------------------------|-----------|
| First Year | | |
| MHP 602 | Uncovering the Past: Tools, Me | 3 |
| MHP 626 | Building Conservation | 3 |
| MHP 624 | Architectural Forensic and Doc | 3 |
| MHP 621 | Issues of Contemporary Preserv | 3 |
| MHP 603 | Rest & Rehab of Modernst Bldgs | 3 |
| ARCH 672 | American Architecture | 3 |
| GEOD 610 | Introduction to GIS | 3 |
| MHP 604 | Consrv Historic Build Interiors | 3 |
| Credits | | 24 |
| Second Year | | |
| MHP 605 | Preservation Thesis | 4 |
| MHP 620 | Thesis Preparation | 3 |
| MHP 622 | Adptv Reuse & Urb Revitlzn | 3 |
| ARCH 671 | Vernacular Architecture | 3 |
| SDN 601 | Princ & Methods of Sust Design | 3 |
| Three Designated Electives | | 9 |
| Credits | | 25 |
| Total Credits | | 49 |

Interior Architecture (MS)

Contacts

Program Director: Lauren K. Baumbach, RA, AIA, IIDA, NCIDQ, IDEC

Email: Lauren.Baumbach@Jefferson.edu

215-951-2806

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/architecture-and-the-built-environment/programs/interior-architecture-ms.html>)

Program Description

- **STEM** designated program

The MS in Interior Architecture program provides a balance between theory and application, and immerses students in the use of current technologies and sustainable practices. The curriculum ensures that students will be fully prepared to join the profession immediately upon

graduation and assume roles in design, production, management or principal positions during their careers. In addition, it incorporates an international perspective and prepares graduates to contribute to projects across international boundaries and to work anywhere in the world. Graduates of the MSIA program will be qualified to sit for the National Council for Interior Design Qualification (NCIDQ) certification exam after accruing the required work experience in the field. NCIDQ certification is recommended and recognized throughout the U.S. and Canada.

Mission

The mission of the Interior Architecture program is to prepare students to be independent thinkers, innovative problem solvers, collaborators, and leaders with high standards of professionalism, integrity, and excellence in design. With an emphasis on creativity, balanced with the knowledge and skills required for meaningful contributions to professional design practice, the program strives to instill in students an awareness and understanding of the global, cultural, social, aesthetic, technological, environmental, and ethical responsibilities involved in the design of interior environments.

Learning Goals/Outcomes

- Examine global and local issues and the implications of a diverse cultural and socio-economic society and the impact of these on the design of the built environment.
- Evaluate the diverse values, behavioral norms, physical, psychological, and spatial needs of different demographic/user groups in the context of designing interior environments.
- Design interiors using an ecologically sensitive approach that supports environmental sustainability and human well-being.
- Research, problem solve and design to generate innovative and creative solutions in the design of interior environments.
- Apply historical and theoretical knowledge of interiors, architecture, art and the decorative arts to the design and analysis of interior environments.
- Engage in multimodal communication methods and work collaboratively with a multi-disciplinary approach.
- Comply with ethical and professional standards of practice and the laws, codes, standards, and guidelines that impact the health, safety, and welfare of building occupants.
- Proficiently select and apply color, furniture, fixtures, equipment, finish materials and lighting in the design of interior spaces.
- Demonstrate knowledge of interior construction and building systems to coordinate the design of a complete interior and to work productively with co-professionals in the making of the built environment.

Curriculum: 2-3 Year, 49-69 Credits

| Course | Title | Credits |
|----------------------------------|----------------------------|-----------|
| First Year | | |
| (Students with unrelated degree) | | |
| IARP 501 | Design 1 for Interior Arch | 4 |
| IARP 503 | Visualization 1 | 3 |
| IARP 505 | Hist of Arch + Design 1 | 3 |
| IARP 502 | Design 2 for Interior Arch | 4 |
| IARP 504 | Visual Communication I | 3 |
| IARP 508 | Visualization 3 for I.A. | 3 |
| Credits | | 20 |

| Course | Title | Credits |
|--|----------------------------------|--------------|
| Second Year | | |
| IARC 601 | Design 3 for Interior Arch | 4 |
| IARC 602 | Design 4 for Interior Arch | 4 |
| IARC 603 | Hist of Design 2 for Int Arch | 3 |
| IARC 604 | Vis 4: Constuction Documentation | 3 |
| IARC 607 | Interior Building Technology | 3 |
| IARC 608 | Light and Color | 3 |
| IARC 610 | Text & Materials for Interiors | 3 |
| SDN 601 | Princ & Methods of Sust Design | 3 |
| Credits | | 26 |
| Summer Semester | | |
| (Optional) | | |
| May substitute for 3-6 cr. of Yr 3 electives | | |
| General Electives | | 0-6 |
| Credits | | 0-6 |
| Third Year | | |
| IARC 702 | Design 5 for Interior Arch. | 4 |
| IARC 707 | Interior Building Systems | 3 |
| IARC 708 | Professional Practice/Ethics | 3 |
| IARC 709 | Research and Programming | 3 |
| IARC 710 | Masters Proj for Interior Arch | 4 |
| General Electives | | 6 |
| Credits | | 23 |
| Total Credits | | 69-75 |

visualization, construction technology, color, lighting, furniture, materials, and textiles. Students also study the history and theory of architectural interiors from pre-history to contemporary works and understand and analyze their cultural relevance. The interior design studios foster an interdisciplinary environment centered on creative experimentation, where material from other courses is synthesized through the act of design. In the fourth year, the Capstone Experience is the culmination of all previous studies when a student integrates the knowledge and skills from previous courses into an individually driven research topic and design experience.

The Interior Design program also offers valuable real-world opportunities including internships in design firms, memberships in professional organizations, and design-based community service for non-profit organizations. Students can study abroad in the third year in the cities of Copenhagen, Rome, or an international exchange program. There are multiple interdisciplinary collaborative experiences integrated into the courses and co-curricular activities. A multidisciplinary faculty, a close-knit campus community and prime location in Philadelphia provide a stimulating setting for the informed and inventive academic development of every student. Students may follow secondary specializations by choosing a minor or an accelerated pathway into a graduate program in areas such as sustainable design, construction management, historic preservation, real estate development, and photography.

Interior Design (BS)

Contacts

Program Director: Lauren K. Baumbach, RA, AIA, IIDA, NCIDQ, IDEC
Email: Lauren.Baumbach@Jefferson.edu
215-951-2806

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/architecture-and-the-built-environment/programs/interior-design.html>)

Program Description

- **Accreditation:** CIDA

The Interior Design program is a four-year undergraduate degree program that leads to a Bachelor of Science in Interior Design. The program provides an extensive education to meet the requirements of this exciting and creative profession including an understanding of the aesthetic, technological, environmental, cultural, socio-economic, and global issues pertaining to the built environment.

The emphasis of the program is to provide a holistic and comprehensive education in interior design with a balance among the theoretical, conceptual, creative, and technical aspects of the discipline. This education is delivered through the core interior design curriculum, which is informed and enriched by the liberal arts and science curriculum and general electives.

At the program's center are design studios in which students explore the creative process through a series of varied and progressively more complex projects, covering the range of practice from residential to commercial and institutional design. The functional knowledge necessary for design is introduced through formally structured courses focusing on such varied topics as design innovation, space planning, human comfort and well-being, sustainable design, computer

Mission

In preparing graduates for successful careers in an evolving global marketplace, the Interior Design program's mission is to prepare students to be independent thinkers, innovative problem-solvers, collaborators, and leaders with high standards of professionalism, integrity and excellence in design. With an emphasis on creativity, balanced with the knowledge and skills required for meaningful contributions to professional design practice, the program strives to instill in students an awareness and understanding of the global, cultural, social, aesthetic, technological, environmental, and ethical responsibilities involved in the design of interior environments.

The program is grounded in the belief that the interior designer mediates between human experience and the built environment, and that our graduates should enter the global marketplace as articulate, creative, inspired, socially aware and technically competent design professionals.

Learning Goals/Outcomes

- Examine global and local issues and the implications of a diverse cultural and socio-economic society and the impact of these on the design of the built environment.
- Evaluate the diverse values, behavioral norms, physical, psychological and spatial needs of different demographic/user groups in the context of designing interior environments.
- Design interior spaces using an ecologically sensitive approach that supports environmental sustainability and human well-being.
- Research, problem solve, and apply principles of design in order to generate innovative and creative solutions in the design of interior environments.
- Apply historical and theoretical knowledge of interiors, architecture, art and the decorative arts to the design and analysis of interior environments.

- Engage in multimodal communication methods and work collaboratively with a multi-disciplinary approach.
- Comply with ethical and professional standards of practice and the laws, codes, standards and guidelines that impact the health, safety and welfare of building occupants.
- Proficiently select and apply color, furniture, fixtures, equipment, finish materials and lighting in the design of interior spaces.
- Demonstrate knowledge of interior construction and building systems in order to coordinate the design of a complete interior and work productively with co-professionals in the making of the built environment.

Accreditation

Thomas Jefferson University's Interior Design program leading to the Bachelor of Science in Interior Design is accredited by the Council for Interior Design Accreditation (CIDA). To learn more about CIDA visit: www.accredit-id.org (<http://www.accredit-id.org>). The CIDA-accredited program prepares students for entry-level interior design practice, for advanced study, and to apply for membership in professional interior design organizations.

The BS in Interior Design granted by Thomas Jefferson University meets the educational requirement for eligibility to sit for the National Council for Interior Design Qualification Examination (NCIDQ Exam). To learn more about NCIDQ Exam eligibility and NCIDQ Certification visit: <https://www.cidq.org/eligibility-requirements> (<https://www.cidq.org/eligibility-requirements/>)

Curriculum: 4 Years, 137.5-138.5 Credits

| Course | Title | Credits |
|--|--|-----------|
| First Year | | |
| FYS 100 | Pathways Seminar | 1 |
| WRIT 101 | Writing Sem I: Written Comm. | 3 |
| AMST 114 | Course AMST 114 Not Found | 3 |
| SCI 106 or SCI 109 | Biology for Design or Sys Thinking & Sustainability | 3 |
| PHYC 101 | General Physics | 3 |
| MATH 1XX | Quantitative Reasoning I | 3 |
| WRIT 201 | Writing Seminar II: Multi Comm | 3 |
| ARFD 101 | Design 1 | 4 |
| ARFD 103 | Visualization 1 | 2 |
| ARFD 108 | Course ARFD 108 Not Found | 3 |
| INTD 102 | Course INTD 102 Not Found | 4 |
| INTD 109 | Course INTD 109 Not Found | 3 |
| ARFD 104 Topics in the Built Environment | | 1 |
| Credits | | 36 |
| Second Year | | |
| ADIV 1XX | American Diversity | 3 |
| GDIV 1xx | Global Diversity | 3 |
| INTD 201 | Design 3 for Interior Design | 4 |
| INTD 209 | Visualization 3: Interior Des. | 3 |
| AHST 205 | Built Environ: Global Origins | 3 |
| ARDS 210 | Tech 1: Materials and Methods | 3 |
| INTD 202 | Design 4 for Interior Design | 4 |
| INTD 206 | Interior Building Technology | 3 |
| AHST 206 | Built Env in Age of Exploration | 3 |
| General Elective | | 3 |
| Credits | | 32 |

| Course | Title | Credits |
|----------------------|----------------------------------|--------------|
| Third Year | | |
| CGIS 300 | Contemporary Global Issues | 3 |
| ISEM 360 | Environments for Well-Being | 3 |
| GCIT 2XX | Global Citizenship/World Lang | 3 |
| INTD 304 | Integrated Community Service | 0.5 |
| INTD 301 | Design 5 for Interior Design | 6 |
| INTD 305 | Interior Building Systems | 3 |
| AHST 305 | Early Mod Arch&Int 3 | 3 |
| INTD 302 | Design 6 for Interior Design | 6 |
| INTD 310 | Textiles & Mat for Interiors | 3 |
| INTD 309 | Vis 4: Constuction Documentation | 3 |
| INTD 307 | History 4:Modrn toContemporary | 3 |
| Credits | | 36.5 |
| Fourth Year | | |
| ETHC 2XX | Ethics | 3 |
| PHIL 499 | Philosophies of the Good Life | 3 |
| INTD 401 | Design 7 for Interior Design | 6 |
| INTD 487 | Capstone Res & Prog. for ID | 3 |
| INTD 488 | Capstone Project Interior Des. | 6 |
| INTD 412 | Int Prof Pract & Contract Dsgn | 3 |
| General Electives | | 12 |
| Credits | | 36 |
| Total Credits | | 140.5 |

Interior Design (BS) & Architecture (MArch) Accelerated, 4+2

Contacts

Program Director: John Dwyer, AIA, NCARB; Lauren K. Baumbach, RA, AIA, IIDA, NCIDQ, IDEC

Email: John.Dwyer@jefferson.edu; Lauren.Baumbach@Jefferson.edu
215-291-2984; 215-951-2806

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/architecture-and-the-built-environment/programs/accelerated-dual-degrees.html>)

Program Description

The BS Interior Design and MArch 4+2 Accelerated Dual Degree supports engaged, collaborative, active learning infused with "real world" issues. The design studios and core courses participate in collaborative projects with students working in other majors across the College as well as throughout the University. There is a strong potential for interdisciplinary research and design opportunities that engage community groups in public interest projects with the participation of industry partners. The combined BS Interior Design and the Master of Architecture 4+2

Accelerated Degree Option is intended for students who wish to pursue a graduate degree in Architecture while completing the undergraduate, professional program in Interior Design.

Curriculum: 6 years

- The 4+2 Accelerated Degree Option enables an undergraduate Interior Design major to complete four graduate courses required by the Master of Architecture program, for a maximum of twelve

graduate course credits, while completing the undergraduate BS Interior Design degree.

- By sub-matriculating, a student achieves advanced standing in the three and a half year, 100-credit Master of Architecture program and can complete the MArch degree with 52 credits.
- Upon graduation from the BS Interior Design program, a student may fulfill requirements for the MArch in two years of full-time study, comprising fall and spring semesters, for a total reduction of a year and half of graduate coursework and tuition.

Contact Lauren Baumbach or John Dwyer for more information.

Interior Design (BS) & Historic Preservation (MS) 4+1

Contacts

Program Director: Suzanne Singletary, PhD

Email: Suzanne.Singletary@jefferson.edu
215-291-2794

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/architecture-and-the-built-environment/programs/accelerated-dual-degrees.html>)

Program Description

The combined BS in Interior Design and MS in Historic Preservation 4+1.5 Accelerated Dual Degree Program is intended for students who wish to pursue a graduate degree in Historic Preservation while completing the undergraduate, professional program in Interior Design. This program enables an undergraduate Interior Design major to complete four graduate courses required by the MS in Historic Preservation program, for a maximum of twelve graduate course credits, while completing the undergraduate BS in Interior Design degree. By overlapping the two programs, a student achieves advanced standing in the 49-credit MS in Historic Preservation program while an undergraduate and can complete the MS in Historic Preservation degree with an additional 37 credits. Upon graduation from the BS in Interior Design program, a student may fulfill the requirements for the MS in Historic Preservation degree in one, to one and a half years of full-time study, comprising fall, spring, and summer semesters, for a total reduction of one semester of graduate coursework and tuition.

Interior Design (BS) & Real Estate Development (MS) 4+1

Contacts

Program Director: Howard Ways, AICP, ULI, ICSC, APA

Email: Howard.Ways@jefferson.edu
215-291-2531

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/architecture-and-the-built-environment/programs/accelerated-dual-degrees.html>)

Program Description

The combined BS in Interior Design and MS in Real Estate Development 4+1 Accelerated Dual Degree Program is intended for students who wish to pursue a graduate degree in Real Estate Development while completing the undergraduate, professional program in Interior Design. This program enables an undergraduate Interior Design major to

complete four graduate courses required by the MS in Real Estate Development program, for a maximum of twelve graduate course credits, while completing the undergraduate BS in Interior Design degree. By overlapping the two programs, a student achieves advanced standing in the 37-credit MS in Real Estate Development program while an undergraduate and can complete the real estate development degree with an additional 25 credits. Upon graduation from the BS in Interior Design program, a student may fulfill the requirements for the MS in Real Estate Development degree in one year of full-time study, comprising fall, spring, and summer semesters, for a total reduction of one semester of graduate coursework and tuition.

Interior Design (BS) & Sustainable Design (MS), Accelerated 4+1

Contacts

Program Director: Lauren K. Baumbach, RA, AIA, IIDA, NCIDQ, IDEC; Robert Fryer, RA, LEED AP BD+C, NCI

Email: Lauren.Baumbach@Jefferson.edu; Robert.Fryer@jefferson.edu
215-951-2806; 215-951-5634

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/architecture-and-the-built-environment/programs/accelerated-dual-degrees.html>)

Program Description

Our award-winning undergraduate Interior Design Program has been teaching the principals of sustainable design for over 15 years and our graduate Sustainable Design Program was one of the first of its kind in the U.S. The Interior Design and Sustainable Design departments have teamed up to create an accelerated option for obtaining the two degrees in just five years, in lieu of the standard six years. Students who complete these two programs are uniquely qualified to serve as leaders in the design industry and the rapidly evolving global economy, which needs designers with expertise in the design of sustainable interior environments.

Curriculum: 5 year

- With guided course selection at the undergraduate level, students can obtain advanced standing in the graduate program, which allows them to complete the MS in Sustainable Design degree in just one year allowing students to save on tuition.

Contact Lauren Baumbach (Baumbach@PhilaU.edu) or **Rob Fryer** for more information.

Landscape Architecture (BLA)

Contacts

Program Director: Kimberlee Douglas, RLA, ASLA, LEED G.A.

Email: Kimberlee.Douglas@jefferson.edu
215-951-0115

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/architecture-and-the-built-environment/programs/landscape-architecture.html>)

Program Description

- **STEM** designated program
- Accreditation: **LAAB**

The Landscape Architecture program provides students with educational opportunities to explore sustainable solutions to multifaceted ecological problems. Students learn to innovate, collaborate, and create outdoor environments that reconnect society with nature, encourage healthy lifestyles and tackle climate change and natural disasters Using “hands on” experiential learning, courses increase students’ design creativity, knowledge and skills to become engaged citizens and professionals capable of solving the today’s pressing problems. Students learn to work independently and in teams and to collaborate across disciplines on projects with community members, governmental agencies and environmental groups.

Learning Goals/Outcomes

- Apply knowledge of liberal arts & science to design solutions
- Collaborate in intra- and interdisciplinary teams, particularly through our experiential learning-based design studios
- Exhibit critical understanding of history/theory as applied to the design process
- Analyze the relationship between the design of places and their socio-cultural, environmental and economic contexts through service learning projects.
- Relate government regulations, professional practice and ethical responsibilities to the design process
- Analyze, interpret, and apply cutting-edge research in all stages of the design process

Curriculum: 4 Years, 137-139 Credits

| Course | Title | Credits |
|------------------------------|------------------------------------|--------------|
| First Year | | |
| FYS 100 | Pathways Seminar | 1 |
| WRIT 101 | Writing Sem I: Written Comm. | 3 |
| AMST 114 | Course AMST 114 Not Found | 3 |
| BIOL 101 | Current Topics in Biology (Botany) | 3 |
| SCI 110 | Landscape Ecology | 1 |
| MATH 1XX | Mathematics Placeholder | 3-4 |
| WRIT 201 | Writing Seminar II: Multi Comm | 3 |
| ARFD 101 | Design 1 | 4 |
| ARFD 103 | Visualization 1 | 2 |
| ARFD 108 | Course ARFD 108 Not Found | 3 |
| ARFD 104 | Topics in the BuiltEnvironment | 1 |
| ARDS 1XX | | 1 |
| Credits | | 28-29 |
| Second Year | | |
| ETHC 1XX | Ethics | 3 |
| Select one of the following: | | 3 |
| GDIV 1XX | Global Diversity Placeholder | |
| LANG 198 | Language I | |
| ADIV 1XX | American Diversity Placeholder | 3 |
| Select one of the following: | | 3 |
| GCIT 2XX | Global Citizenship Placeholder | |
| LANG 1XX | Language Placeholder | |
| LARC 201 | LA Design 3: Site Design | 4 |
| LARC 207 | LA Technology: Grading | 3 |
| ARDS 208 | Visual 3: Digital Mod for Arch | 3 |

| Course | Title | Credits |
|----------------------|--------------------------------|----------------|
| LARC 300 | La Design 4: Urban Dsgn I | 6 |
| LARC 303 | La Tech: Advanced Grading | 3 |
| Credits | | 31 |
| Third Year | | |
| ISEM 360 | Environments for Well-Being | 3 |
| CGIS 300 | Contemporary Global Issues | 3 |
| LARC 304 | LA Design 5: Community Design | 6 |
| LARC 305 | Plant Community Ecology | 3 |
| LARC 206 | History of Landscape Arch 1 | 3 |
| LARC 409 | LA Tech: Materials and Methods | 3 |
| LARC 400 | La Design 6: Restoration Mgmt | 6 |
| LARC 412 | LA Tech: Urban Hydrology | 3 |
| LARC 212 | Local Flora | 3 |
| Credits | | 33 |
| Fourth Year | | |
| PHIL 499 | Philosophies of the Good Life | 3 |
| LARC 401 | LA Design 7: Interdisc Design | 6 |
| LARC 516 | LA Tech: Construction Docs | 4 |
| LARC 307 | History of Landscape Arch 2 | 3 |
| LARC 312 | Sustainable Planting Design | 3 |
| LARC 506 | Professional Practice for LA | 3 |
| LARC 599 | LA Design 8: Capstone Project | 6 |
| General Electives | | 12 |
| Credits | | 40 |
| Total Credits | | 132-133 |

Landscape Architecture (BLA) & Sustainable Design (MS) Accelerated 4 + 1

Contacts

Program Director: : Kimberlee Douglas, RLA, ASLA, LEED G.A (BS); Rob Fryer, RA, LEED AP BD+C, NCI

Email: Kimberlee.Douglas@jefferson.edu; Robert.Fryer@jefferson.edu

Program Description

The 4+1 Bachelor of Landscape Architecture (<https://nam10.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.jefferson.edu%2Facademics%2Fcolleges-schools-institutes%2Farchitecture-and-the-built-environment%2Fprograms%2FLandscape-architecture.html&data=05%7C02%7CDavid.Feldman%40jefferson.edu%7Ced6c0909529b49beb13f08dc4dbdac84%7C55a89906c710436bbc444c590cb%7C0%7C0%7C638470724244283940%7CUnknown%7CTWFpbGZsb3d8eyJWljojMC4wLjAwMDAiLCJQIjoiV2luMzliLCJBTiI6IkhWwiiLCJ0%7C%7C%7C&sdata=a%2B4KszLqXwZ%2By4bjyMnIYQZYKSQYd2uwUZUWejlCeQs%3D&reserved=0>) and MS in Sustainable Design (<https://nam10.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.jefferson.edu%2Facademics%2Fcolleges-schools-institutes%2Farchitecture-and-the-built-environment%2Fprograms%2FSustainable-design-ms.html&data=05%7C02%7CDavid.Feldman%40jefferson.edu%7Ced6c0909529b49beb13f08dc4dbdac84%7C55a89906c710436bbc444c590cb%7C0%7C0%7C638470724244292604%7CUnknown%7CTWFpbGZsb3d8eyJWljojMC4wLjAwMDAiLCJQIjoiV2luMzliLCJBTiI6IkhWwiiLCJ0%7C%7C%7C&sdata=NjYwZC%2Fymjf%2F%2BiQsV97V1XNFUHVzNHmpwXJzxyZ%2FZJQ%3D&reserved=0>) Dual Degree affords landscape architecture students in-depth study of

sustainable design principles and practices as a complement to their landscape architecture coursework. Completing a MS in Sustainable Design expands employment opportunities for Landscape Architecture students and prepares graduates for the complexities of today's practice. By combining the two programs, a student achieves advanced standing in the 33-credit MS Sustainable Design program and can complete the MSSD degree with an additional 21 credits.

Real Estate Development (Graduate Certificate)

Contacts

Program Director: Howard Ways, AICP, ULI, ICSC, APA

Email: Howard.Ways@jefferson.edu
215-951-2531

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/architecture-and-the-built-environment/programs/graduate-certificates/real-estate-development.html>)

Program Description

- **STEM** designated program

For graduates of professional programs, including Architecture, Interior Architecture, Landscape Architecture, Construction Management, Sustainable Design, Business Administration, etc. seeking to build their knowledge-base and credentials in the field of real estate development, a customized portfolio of four courses is available, leading to a 12-credit hour Graduate Certificate in Real Estate Development.

Professionals working in the Real Estate Development industry who would like to update their knowledge of new and emerging techniques and concepts will also benefit from the 12-credit hour Graduate Certificate program. Classes are offered in the evening to coordinate with work schedules. Students have the option of designing their own curriculum or they can follow the suggested model below.

Learning Goals/Outcomes

- Apply "green" planning principles, as outlined by Urban Land Institute and United States Environmental Protection Agency, to development projects
- Assess fundamental legal principles and ethical practices applicable to real estate development
- Apply financial and investment tools in a wide array of property types and development scenarios
- Examine opportunities & challenges of public-private partnerships, the techniques employed to encourage growth, and market and fiscal feasibility of cross-sector collaborations
- Focus on projects of various scales—from single building and neighborhood revitalization, to commercial, institutional and healthcare development

Curriculum: 12 Credits

| Code | Title | Credits |
|------------------------------|--------------------------------|---------|
| MRE 601 | Sustain Real Estate Dev Proc | 3 |
| Select two of the following: | | 6 |
| MRE 604 | CS: Mixed Use, Comm, Hlth Care | |
| MRE 615 | Real Estate Fin & Investment | |

| Code | Title | Credits |
|---------|--------------------------------|---------|
| MRE 620 | Case Study Studio:UrbanRevital | |
| MRE 625 | Real Estate Law & Eth Pract | |
| MRE 630 | Market Analysis and Valuation | |
| MRE 635 | Public Private Partnerships | |
| MRE 638 | Case Study:Sust Afford Housing | |

Total Credits 9

Real Estate Development (MS)

Contacts

Program Director: Howard Ways, AICP, ULI, ICSC, APA

Email: Howard.Ways@jefferson.edu
215-951-2531

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/architecture-and-the-built-environment/programs/real-estate-development-ms.html>)

Program Description

- **STEM** designated program

Prepare students to be leaders in real estate profession and address the significant built environment challenges of the 21st century: sustainability, gentrification, poverty, the decline of brick and mortar retail and the shifts in demographics. Students will learn to address economic, social, and ecological issues when developing commercial, industrial, institutional, or mixed use and residential real estate development projects.

By focusing on the quadruple bottom line of real estate development and combining environmental and economic sustainability, social consciousness, design excellence, financial feasibility and economic viability, students gain first-hand experience how real estate development invigorates communities and shapes healthy places to live, work, and play. Using the city of greater Philadelphia area as a living laboratory, students learn to approach projects at various scales, ranging from a single building to an entire districts or neighborhoods.

Students have the option of taking classes in person at our East Falls Campus, or take part in an online, low-residency cohort. This cohort meets in person once a semester with other MSRED students and faculty in Philadelphia or another city in the region, while fulfilling all other requirements in a live online learning environment.

A faculty of industry experts and practitioners provide real-world insight into the sustainable and equitable practices, legal aspects of land-use, city and regional planning, and construction science and management. Much of the course work is collaborative, including case study analysis, group projects, and real-world problem solving. The Jefferson experience helps students build a network of professional contacts and resources. The Jefferson experience helps students build a network of professional contacts and resources.

Learning Goals/Outcomes

- Learn to creatively invigorate urban communities—architecturally, environmentally and fiscally

- Track demographic, sociological, technological & economic trends that impact t supply & demand for particular projects within specific markets and areas
- Apply “green” planning principles, as outlined by Urban Land Institute and United States Environmental Protection Agency, to development projects
- Assess fundamental legal principles and ethical practices applicable to real estate development
- Apply financial and investment tools in a wide array of property types and development scenarios
- Examine opportunities & challenges of public-private partnerships, the techniques employed to encourage growth, and market and fiscal feasibility of cross-sector collaborations
- Focus on projects of various scales—from single building and neighborhood revitalization, to commercial, institutional and healthcare development
- Analyze demographic, technological and economic trends using current GIS technologies
- Measure efficacy of sustainable interventions, such as Smart Growth, New Urbanism, Brownfield Redevelopment and Adaptive Reuse as a springboard to urban revitalization
- Complete a comprehensive Capstone Project under the mentorship of faculty who are in the real estate industry

Curriculum: 1.5 - 2 Year, 37 Credits

| Course | Title | Credits |
|---|---|-----------|
| First Year | | |
| MRE 601 | Sustain Real Estate Dev Proc | 3 |
| MRE 615 | Real Estate Fin & Investment | 3 |
| MRE 620 | Case Study Studio:UrbanRevital | 3 |
| MRE 625 | Real Estate Law & Eth Pract | 3 |
| MRE 630 | Market Analysis and Valuation | 3 |
| MRE 635 | Public Private Partnerships | 3 |
| MRE 638 | Case Study:Sust Afford Housing | 3 |
| MRE 638 or MRE 604 | Case Study:Sust Afford Housing or CS: Mixed Use, Comm, Hlth Care | 3 |
| GEOD 625 | Inter GIS Tech for Design &Dev | 3 |
| SDN 601 | Princ & Methods of Sust Design | 3 |
| Select one of the following Designated Electives: | | 3 |
| CMGT 607 | Intro to Construction Proj Mgt | |
| CMGT 603 | Const Law: Roles & Responsibi | |
| CMGT 604 | Project Finance & Cost Control | |
| CMGT 600 | Constructn Estimtn & Schedn | |
| Credits | | 30 |
| Second Year | | |
| MRE 640 | Capstone Project | 4 |
| Select one of the following: | | 3 |
| MRE 602 | Intro to Urban & Reg Planning | |
| Any other CABA graduate course | | |
| Any IMBA course | | |
| GEOD 625 | Inter GIS Tech for Design &Dev | 3 |
| SDN 601 | Princ & Methods of Sust Design | 3 |
| Select one of the Following Designated Electives | | |
| MRE 638 | Case Study:Sust Afford Housing | |
| MRE 604 | CS: Mixed Use, Comm, Hlth Care | |
| Credits | | 13 |
| Total Credits | | 43 |

Note: the above is a suggested curriculum for completion in 1 ½ years. The MSRED program can be completed at any pace and a curriculum plan is created for each student upon entering the program.

Smart Cities & Urban Analytics (Graduate Certificate)

Contacts

Program Director: Peng Du, Ph.D., LEED AP, WELL AP, Assoc. AIA

Email: Peng.Du@jefferson.edu
215-951-0962

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/architecture-and-the-built-environment/programs/graduate-certificates/urban-design.html>)

Program Description

The twelve-credit Graduate Certificate in Smart Cities and Urban Analytics prepares architects, urban designers and city managers to become leaders in the planning, management, and operational functions of ‘smart’ cities. Foregrounding the development of future cities and communities, the certificate offers a unique focus on pressing, contemporary issues with far-reaching consequences. Coursework addresses the need to develop urban resiliency and carbon neutral communities and to harness the potential of smart technologies to achieve environmental wellness on multiple scales in response to rapid urbanization and climate change. This credential provides the technical and theoretical skills needed to make a difference to the cities of today and tomorrow.

Curriculum: 12 Credits

| Code | Title | Credits |
|----------------------|---|-----------|
| MUD 600 | Modeling Urban Enviro Perf | 3 |
| MUD 6xx | Emerging Design and Technology for Smart Cities | 3 |
| GEOD 615 | Adv GIS:Urbn Spctl Anlytcs 1 | 3 |
| GEOD 617 | Adv GIS: Urb Spial Anlytcs II | 3 |
| Total Credits | | 12 |

Sustainable Design (MS)

Contacts

Program Director: Robert Fryer, RA, LEED AP BD+C, NCI

Email: Robert.Fryer@jefferson.edu
215-951-5634

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/architecture-and-the-built-environment/programs/sustainable-design-ms.html>)

Program Description

- **STEM** designated program

The MS in Sustainable Design prepare students for the built environment industry by teaching specific skill sets necessary to conceptualize measure and construct a sustainable environment. This is balanced by broader, theoretical avenues of study that emphasize systems thinking,

which place the technical knowledge gained in the program into context.

The on-campus program culminates with a two-semester thesis project that is meant to provide a component of depth in a specific built environment discipline or a particular subset of sustainability. Online students complete a shorter capstone project.

Learning Goals/Outcomes

- Apply skill sets necessary to accomplish effective sustainable design project as response to environmental, social & economic force
- Provide leadership, team building and organizational skills for diverse groups through the integrated process
- Work effectively within groups of varied disciplines
- Synthesize theories of sustainability into comprehensive research and design projects
- Develop diversity initiatives integral to sustainability problem-solving process as a reflection of emerging global marketplace
- Apply ethical values to integrated design process and to selection of systems and materials for a built project
- Bring innovation to fields & anticipate future directions in professions by adapting to social, environmental & economic changes

Curriculum: 2 Year, 33 Credits 2-Year On Campus Program

| Course | Title | Credits |
|----------------------|--------------------------------|-----------|
| First Year | | |
| SDN 601 | Princ & Methods of Sust Design | 3 |
| SDN 602 | Adaptive & Resilient Dsgn Sdio | 3 |
| General Elective | | 3 |
| SDN 604 | Life Cycle Assess & Circ Ecnmy | 3 |
| SDN 609 | Building Info Modeling for SD | 3 |
| SDN 621 | MS: Resilient Cities & Comms | 4 |
| SDN 623 | SC: Eco Sys for Resilnt Cities | 2 |
| Credits | | 21 |
| Second Year | | |
| SDN 622 | MS: Living Buildings | 4 |
| SDN 624 | SC: Sust Syst for Living Bldgs | 2 |
| SDN 900 | Thesis in Sustainable Design I | 3 |
| SDN 901 | Thesis in Sustainable Desgn II | 6 |
| Credits | | 15 |
| Total Credits | | 36 |

2-Year Online Program

| Course | Title | Credits |
|--------------------|--------------------------------|-----------|
| First Year | | |
| SDN 601 | Princ & Methods of Sust Design | 3 |
| SDN 602 | Adaptive & Resilient Dsgn Sdio | 3 |
| SDN 621 | MS: Resilient Cities & Comms | 4 |
| SDN 623 | SC: Eco Sys for Resilnt Cities | 2 |
| General Elective | | 3 |
| SDN 609 | Building Info Modeling for SD | 3 |
| Credits | | 18 |
| Second Year | | |
| SDN 624 | SC: Sust Syst for Living Bldgs | 2 |
| SDN 604 | Life Cycle Assess & Circ Ecnmy | 3 |
| SDN 622 | MS: Living Buildings | 4 |
| SDN 628 | Capstone in Sustainable Design | 6 |

| Course | Title | Credits |
|----------------------|-------|-----------|
| General Elective | | 3 |
| Credits | | 18 |
| Total Credits | | 36 |

Sustainable Design - in Partnership with Brick (MS) Contacts

Program Director: Robert Fryer, RA, LEED AP BD+C, NCI
Email: Robert.Fryer@jefferson.edu

Program Description

- STEM Designated Program

The MS in Sustainable Design prepares students for the built environment industry by teaching specific skill sets necessary to conceptualize measure and construct a sustainable environment. This is balanced by broader, theoretical avenues of study that emphasize systems thinking, which place the technical knowledge gained in the program into context.

Students study for the first two semesters online in India, with one class in person at the Brick School of Architecture. In year two students will move to the United States and take classes on campus at East Falls. After completion from this STEM-designated program, international students are eligible for an extension of the Optional Practice Training period and may reside in the United States for three additional years to work in their field.

Learning Goals/Outcomes

- Apply skill sets necessary to accomplish effective sustainable design project as response to environmental, social & economic force
- Provide leadership, team building and organizational skills for diverse groups through the integrated process
- Work effectively within groups of varied disciplines
- Synthesize theories of sustainability into comprehensive research and design projects
- Develop diversity initiatives integral to sustainability problem-solving process as a reflection of emerging global marketplace
- Apply ethical values to integrated design process and to selection of systems and materials for a built project
- Bring innovation to fields & anticipate future directions in professions by adapting to social, environmental & economic changes

Curriculum: 2 years, 33 credits

| Code | Title | Credits |
|--------------------------------|--------------------------------|---------|
| Year 1- In India | | |
| SDN 601 | Princ & Methods of Sust Design | 3 |
| SDN 602 | Adaptive & Resilient Dsgn Sdio | 3 |
| SDN 609 | Building Info Modeling for SD | 3 |
| SDN 621 | MS: Resilient Cities & Comms | 4 |
| SDN 623 | SC: Eco Sys for Resilnt Cities | 2 |
| Year 2- In Philadelphia | | |
| SDN 604 | Life Cycle Assess & Circ Ecnmy | 3 |
| online | | |

| Code | Title | Credits |
|---------|---------------------------------|---------|
| SDN 622 | MS: Living Buildings | 4 |
| SDN 624 | SC: Sust Syst for Living Bldgs | 2 |
| SDN 900 | Thesis in Sustainable Design I | 3 |
| SDN 901 | Thesis in Sustainable Design II | 6 |

Sustainable Leadership (Graduate Certificate)

Contacts

Program Director: Robert Fryer, RA, LEED AP BD+C, NCI

Email: Robert.Fryer@jefferson.edu

215-951-5634

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/architecture-and-the-built-environment/programs/sustainable-design-ms/degree-options/graduate-certificates/sustainable-leadership.html>)

Program Description

- **STEM** designated program

The Sustainability Leadership Certificate at Thomas Jefferson University prepares forward-thinking professionals to design and deliver sustainability initiatives in their current or future organizations. With our curriculum's project-based approach, you will build vital skills in problem scoping, systems modeling, solution framing and change management and immediately apply them to the sustainability challenges facing your own organization or an assigned client.

As you progress through the program, your project advances with you, moving through stages from identifying and prioritizing key environmental challenges to developing and pitching an implementation plan for addressing them. Our faculty are prominent sustainability professionals ready to share their conceptual knowledge and practical experience as you master the strategies and tools needed to produce positive change in your field.

Learning Goals/Outcomes

- Build vital skills in problem scoping, systems modeling, solution framing and change management.
- Identify and prioritize key environmental challenges
- Develop implementation plans for addressing environmental challenges.
- Credits earned through certificate courses are transferable into the MS in Sustainable Design program.

Curriculum: 1 Year, 12 Credits (On Campus)

| Code | Title | Credits |
|----------------------|--------------------------------|-----------|
| SDN 601 | Princ & Methods of Sust Design | 3 |
| SDN 625 | Env Imp Analysis and Sys Think | 3 |
| SDN 626 | Models & Metrics for Sust Orgs | 3 |
| SDN 627 | Sust Adv & Chg Mgmt | 3 |
| Total Credits | | 12 |

Urban Design- Future Cities (MUD) (MS)

Contacts

Program Director: Peng Du, Ph.D., LEED AP, WELL AP

Email: Peng.Du@jefferson.edu

215-951-0962

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/architecture-and-the-built-environment/programs/urban-design-ms.html>)

Program Description

- **STEM** designated program

The Master of Urban Design – Future Cities (MUD) educates the next generation of urban designers, architects and researchers in the development of sustainable, healthy and smart cities and communities. Focused on envisioning the future, the program spotlights pressing contemporary issues with far-reaching consequences, such as the need to develop urban resiliency and carbon neutral communities and to harness the potential of smart technologies to achieve environmental wellness on multiple scales in response to rapid urbanization and climate change. Students have the opportunity to acquire new and valuable skills and benefit from state-of-the-art research at regional and transnational levels, thereby fostering innovation, entrepreneurship, and creativity through knowledge exchange and multidisciplinary learning.

The unique focus of MUD on contemporary urban issues such as urban resiliency, carbon neutral communities, wellness, and smart technologies differentiates Jefferson's program. Collaboration with the Jefferson Institute for Smart and Healthy Cities offers students unparalleled opportunities for research and industry experience.

A focus on the unique challenges and possibilities in designing sustainable, healthy and smart cities differentiates the Master of Urban Design from similar programs. It also positions Jefferson as a leader in this emerging field, both nationally and internationally. The Institute for Smart and Healthy Cities serves as the hub and public face of the program and facilitates transdisciplinary research opportunities for students and faculty. Addressing climate change, public health, pandemics and other challenges by incorporating smart technologies into urban environments is the next frontier within the profession.

Learning Goals/Outcomes

- Develop design solutions at the neighborhood, community, and city scale for a socially equitable and sustainable future
- Construct urban design research and solutions within an ethical framework
- Evaluate urban design choices as they relate to environmental and sustainable best practices
- Create a personal approach for navigating the future of urban design in an environment that is volatile, uncertain, complex and ambiguous
- Employ ethical choices within research and testing involving human subjects.
- Investigate existing and speculative technology to address opportunities for innovation with an emphasis on solutions that are participatory and generative

Curriculum: 2 Year, 48 Credits

- Students without a formal education in architecture or a related field will be required to take additional courses (up to 23 credits) in their first semester or first year..

| Course | Title | Credits |
|----------------------|--------------------------------|-----------|
| First Year | | |
| Fall | | |
| MUD 601 | MS: Sustainable & Smrt Cities | 6 |
| GEOD 615 | Adv GIS:Urbn Spctl Anlytcs 1 | 3 |
| MUD 600 | Modeling Urban Enviro Perf | 3 |
| Credits | | 12 |
| Spring | | |
| SDN 621 | MS: Resilient Cities & Comms | 4 |
| SDN 623 | SC: Eco Sys for Resilnt Cities | 2 |
| GEOD 617 | Adv GIS: Urb Spial Anlytcs II | 3 |
| MUD 604 | Emerg Dsgn &Tech Future Cities | 3 |
| Credits | | 12 |
| Second Year | | |
| Fall | | |
| MUD 603 | MS: Towards Carbon Zero Cities | 6 |
| MUD 631 | Research Methodology | 3 |
| MUD 602 | Hist & Theory of Urban Design | 3 |
| Credits | | 12 |
| Spring | | |
| MUD 6xx | Graduate Seminar/Focus | 3 |
| MUD 606 | Master's Research Studio | 6 |
| General Elective | | 3 |
| General Elective | | 3 |
| Credits | | 15 |
| Total Credits | | 51 |

College of Health Professions (JCHP)

Dean: Michael Dryer, PA-C, DrPH | 215- 503-4943
College Website (<http://Jefferson.edu/JCHP/>)

About Us

The Jefferson College of Health Professions (JCHP) is committed to educating healthcare professionals of the highest quality and ethical standards for contemporary practice in the global community. The College, representing inter-professional programs across the health professions, offers natural opportunities for students to develop professional behaviors within a community of learners. JCHP offers degrees ranging from a bachelor of science through clinical doctorate across several academic departments:

- Counseling and Behavioral Health
- Health Sciences Programs
- Medical Laboratory Sciences & Biotechnology
- Midwifery & Women's Health
- Physician Assistant Studies
- Medical Imaging & Radiation Sciences
- Nutrition Sciences

JCHP also offers academic certificate programs, master's degree programs and continuing education opportunities through the Institute of Emerging Health Professions.

We seek to be responsive to the changing needs of the healthcare system.

- Curriculum is based on a set of core competencies that are essential to effective practice.
- Programs continually make innovative curricular changes to prepare students to function as outstanding health professionals in the dynamic environment of health care.
- Faculty develop learning and training experiences to ensure that students have the knowledge, skills and experience to be an evidence-based practitioner.
- As an integral part of a major academic health center, students have many inter-professional opportunities focused on working together, understanding one another's contributions, and effectively communicating in order to provide the best possible care for patients.

Academic Programs by Departments

Undergraduate

- Biotechnology (BS) (p. 69)
- Cytotechnology & Cell Sciences (BS) (p. 77)
- Health Sciences (BS) (p. 81)
- Health Sciences: Pre-Medical Imaging/Radiation Sciences (BS) (p. 90)
- Health Sciences: Pre-Medical Lab Sci/Biotechnology (BS) (p. 91)
- Health Sciences: Pre-Nursing (BS) (p. 92)
- Health Sciences: Pre-Pharmacy (BS) (p. 92)
- Health Sciences: Pre-Physician Assistant (BS) (p. 94)
- Health Sciences: Pre-Respiratory Therapy (BS) (p. 95)
- Medical Imaging & Radiation Sciences (BS) (p. 104)
- Medical Laboratory Science (BS) (p. 110)
- Respiratory Therapy (BS) (p. 121)

Graduate

- Biotechnology (MS) (p. 70)
- Community & Trauma Counseling (MS) (p. 73)
- Community & Trauma Counseling: Art Therapy Concentration (MS) (p. 74)
- Community & Trauma Counseling: Child Trauma & Play Therapy Concentration (MS) (p. 75)
- Community & Trauma Counseling: Trauma, Addiction & Recovery Concentration (MS) (p. 76)
- Couple & Family Therapy (MFT) (p. 76)
- Cytotechnology & Cell Sciences (MS) (p. 78)
- Health Sciences (DHSc) (p. 89)
- Medical Imaging & Radiation Sciences (MS) (p. 107)
- Medical Laboratory Leadership (MS) (p. 108)
- Medical Laboratory Sciences (MS) (p. 112)
- Midwifery (DM) (p. 113)
- Midwifery (MS) (p. 114)
- Nutrition & Dietetic Practice (MS) (p. 116)
- Physician Assistant Studies - Center City (MS) (p. 118)
- Physician Assistant Studies - East Falls (MS) (p. 119)

Certificate

- Art Therapy Advanced Studies (Graduate Certificate) (p. 66)
- Clinical Chemistry (Graduate Certificate) (p. 72)
- Clinical Hematology (Graduate Certificate) (p. 72)
- Clinical Microbiology (Graduate Certificate) (p. 73)
- Computed Tomography (Undergraduate Certificate) (p. 76)
- Immunohematology (Graduate Certificate) (p. 97)
- Midwifery (Advanced-Practice Certificate) (p. 113)
- Molecular Biology (Graduate Certificate) (p. 116)
- Trauma, Addiction & Recovery Advanced Studies (Graduate Certificate) (p. 122)

Accelerated & Dual Degree

- Biotechnology (BS/MS) (p. 67)
- Cytotechnology & Cell Sciences (BS/MS) (p. 78)
- Health Sciences (BS) & Athletic Training (MS) (p. 82)
- Health Sciences (BS) & Community & Trauma Counseling (MS) (p. 83)
- Health Sciences (BS) & Community and Trauma Counseling (MS) (p. 84)
- Health Sciences (BS) & Nutrition & Dietetic Practice (MS) (p. 85)
- Health Sciences (BS) & Occupational Therapy (OTD) (p. 86)
- Health Sciences (BS) & Occupational Therapy (OTD) (p. 87)
- Health Sciences (BS) & Physician Assistant (PA) (p. 88)
- Medical Laboratory Sciences (BS/MS) (p. 110)
- Midwifery (MS/DM) (p. 115)
- Physician Assistant Studies (MS) & Health Sciences (DHSc) (p. 117)
- Psychology (BS) & Community & Trauma Counseling (MS) (p. 120)

IEHP and Continuing & Professional Studies

- Behavioral & Health Services (BS) (p. 67)
- Business & Organizational Continuity (Graduate Certificate) (p. 98)
- Cannabis Business (Graduate Certificate) (p. 98)
- Cannabis Medicine (Graduate Certificate) (p. 98)
- Cannabis Science (Graduate Certificate) (p. 98)
- Cardiovascular Perfusion (MS) (p. 99)
- Cardiovascular Perfusion Post-Professional (MS) (p. 99)
- Crisis and Emergency Management (Executive MS) (p. 77)
- Emergency & Disaster Management (Graduate Certificate) (p. 80)
- Emergency & Disaster Management (MS) (p. 80)
- Health & Human Services (AS) (p. 81)
- Health & Human Services: Radiologic Technology (AS) (p. 100)
- Health Insurance Management (BS) (p. 81)
- Health Professions Education (MS) (p. 100)
- Health Professions Pathways (Accelerated Pathway) (p. 81)
- Health Professions Teaching and Learning (Graduate Certificate) (p. 101)
- Health Sciences (BS) (p. 82)
- Health Services Management (BS) (p. 95)
- Health Studies (BS) (p. 96)
- Healthcare Information Systems (Undergraduate Certificate) (p. 96)

- Integrative Health Education & Leadership (Advanced-Practice Certificate) (p. 101)
- Integrative Health Sciences (MS) (p. 101)
- Integrative Nutrition (Advanced-Practice Certificate) (p. 102)
- Medical Cannabis Science and Business (MS) (p. 102)
- Medical Coding & Data Quality (Undergraduate Certificate) (p. 103)
- Medical Practice Management (Undergraduate Certificate) (p. 103)
- Mind-Body Medicine (Advanced-Practice Certificate) (p. 104)

University Accreditations (<https://www.jefferson.edu/about/consumer-information-disclosures.html>)

Art Therapy Advanced Studies (Graduate Certificate)

Contacts

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/departments-programs/counseling-behavioral-health/programs/community-trauma-counseling/advanced-studies-art-therapy-certificate.html>)

Program Description

The Professional Certificate of Advanced Studies in Art Therapy gives clinicians the skills and knowledge they need to competently, confidently, and ethically incorporate art therapy into their practice.

Curriculum: 15-30 Credits

- **Certificate Program** - 15 credit program for clinicians seeking to gain and incorporate art therapy skills into practice)
- **Professional Certificate Program and Internship Supervision** - 30 credit program for clinicians seeking credentialing as board certified Art Therapists

| Code | Title | Credits |
|--------------------------------|--|---------|
| Required Courses | | |
| CTC 510 | History & Theory of Art Therapy | 3 |
| CTC 512 | Ethics, Stan&Prof Orient in AT | 3 |
| CTC 520 | Studio & Techn of Art Therapy | 3 |
| CTC 619 | Art Therapy Assessment (Professional Certificate Only) | 3 |
| CTC 620 | Grp Work in Art Thrpy & Coussl | 3 |
| CTC 791 | Internship in CTC I (Professional Certificate Only) | 3 |
| CTC 792 | Internship in CTC II (Professional Certificate Only) | 3 |
| Select three of the following: | | 9 |
| Fall | | |
| CTC 603 | Human Growth & Development | |
| CTC 652 | Child Trauma & Play Therapy | |
| CTC 653 | Adv Clin Interventn in Trauma | |
| Spring | | |
| CTC 606 | Social and Cultural Diversity | |
| CTC 651 | Neurobiology of Trauma | |

| Code | Title | Credits |
|----------------------|--------------------------------|-----------|
| Summer | | |
| CTC 613 | Attachmt Relatns & Fam Therapy | |
| CTC 614 | Fndtns of Trauma&Addictv Behav | |
| Total Credits | | 30 |

Behavioral & Health Services (BS)

Associate Dean Academic Programs: Laura Pontiggia, PhD (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/emerging-health-professions/academic-programs/behavioral-and-health-services.html>)

Program Description

The BS in Behavioral and Health Services covers the major theories and concepts in behavioral health and enables students to apply various intervention approaches used in the delivery of behavioral and health services. Mental health policies, legal and ethical matters, social justice concerns, delivery systems, service settings, target populations, and service approaches also are covered. Graduates are prepared for entry-level positions in mental health settings and for graduate programs, such as Jefferson's MS in Community and Trauma Counseling (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/departments-programs/counseling-behavioral-health/programs/community-trauma-counseling/masters.html>) and the MS in Couple and Family Therapy (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/departments-programs/counseling-behavioral-health/programs/couple-family-therapy.html>).

Curriculum: 120 credits

- Continuing & Professional Studies, Accelerated Program

| Code | Title | Credits |
|------------------------------------|--------------------------------|---------|
| CPS General Education Requirements | | |
| | Written Communication | 3 |
| | Written Communication | 3 |
| STAX 211 | Finding & Evaluating Stat Data | 3 |
| | Science Elective | 3 |
| COMX 220 | Speak to Lead in Digital Age | 3 |
| PHLX 222 | Applied Professional Ethics | 3 |
| PSYX 101 | Fundamentals of Psychology I | 3 |
| Foundation Requirements | | |
| CSSX 101 | Learning Across the Lifespan | 3 |
| Creativity & Leadership Core | | |
| CLCX 310 | Creativity Fnds & Applications | 3 |
| CLCX 330 | Project Management | 3 |
| CLCX 340 | Leading Diverse Organizations | 3 |
| CLCX 350 | Creative Leadership | 3 |
| CLCX 360 | Leadership in the Digital Age | 3 |
| Major Requirements | | |
| PSYX 251 | Abnormal Psych | 3 |
| PSYX 253 | Developmental Psych | 3 |
| PSYX 254 | Psychology of Addiction | 3 |
| PSYX 256 | Psychology of Trauma | 3 |

| Code | Title | Credits |
|-------------------|--------------------------------|---------|
| PSYX 262 | Counseling Psych | 3 |
| PSYX 263 | Inter Relations&Sm Grp Dynamcs | 3 |
| BHSX 351 | Behavioral Hlth Pol&Services | 3 |
| BHSX 361 | Applic of Beh Hlth Research | 3 |
| BHSX 498 | Behavioral Hlth Srvcs Capstone | 3 |
| General Electives | | 51 |

Biotechnology (BS/MS)

Contacts

Program Director: Scott Gygax, PhD
Email: Scott.Gygax@jefferson.edu
 215-503-8184
Campus: Center City, East Falls

Curriculum: BS/ MS, 2 Years, 74 Credits

- Credits Required for Admission: 82

| Course | Title | Credits |
|------------------------------|--|-----------|
| First Year | | |
| Fall | | |
| Undergraduate Phase | | |
| BT 303 | Molecular Prep Techniques | 3 |
| BT 305 | Survey of Biotech Applications | 3 |
| BT 310 | Fundamental Molec Techniques | 4 |
| BT 405 | Appld Microbial Biotechnology | 3 |
| LS 301 | Molecular Biology | 3 |
| LS 304 | Biochemistry | 3 |
| Credits | | 19 |
| Spring | | |
| BT 320 | Cell and Tissue Culture | 4 |
| BT 403 | Human Genetics | 3 |
| BT 406 | Intro to Bioinformatics | 2 |
| BT 410 | Molecular Diagnostic Technique | 4 |
| BT 411 | Protein Purification & Charact | 3 |
| LS 540 | Current Resrch in Biosciences | 3 |
| Credits | | 19 |
| Second Year | | |
| Fall | | |
| Graduate Phase | | |
| BT 812 | Biotechnology Practicum I | 3 |
| BT 813 | Biotechnology Practicum II | 3 |
| LS 531 | Immunology | 3 |
| LS 603 | Research Design | 2 |
| LS 640 | Methods in Bioscience Edu | 3 |
| LS 804 | Experimental Research I (approval) ¹ | 1 |
| Program Approved Elective | | 3 |
| Credits | | 18 |
| Spring | | |
| BT 525 | Product Development&Management | 3 |
| BT 814 | Biotechnology Practicum III | 3 |
| BT 815 | Biotechnology Practicum IV | 3 |
| BT 816 | Comprehensive Exam | 0 |
| LS 610 | Reg & Fis Issues in Lab. Mgmt | 3 |
| Select one of the following: | | 1-2 |
| LS 803 | Contemporary Topics Research (approval) ² | |
| LS 805 | Experimental Research II ¹ | |

| Course | Title | Credits |
|---------------------------|-------|--------------|
| Program Approved Elective | | 3 |
| Credits | | 16-17 |
| Total Credits | | 72-73 |

² To meet the research requirement, students may take a classroom literature review-based course (LS 803 Contemporary Topics Research) or, under special circumstances, engage in a two-semester wet bench research project with a selected PI (LS 804 Experimental Research I and LS 805 Experimental Research II). Students must meet with their faculty advisor and/or program director to determine which option best meets their educational goals. LS 804 Experimental Research I and LS 805 Experimental Research II are not a substitute for nor may run concurrently with practica courses.

Curriculum: Advanced MS, 2 Years, 33 Credits

- Part-time without Concentration

| Course | Title | Credits |
|------------------------------|--------------------------------|-----------|
| First Year | | |
| Fall | | |
| LS 603 | Research Design | 2 |
| BT 605 | Appld Microbial Biotechnology | 3 |
| Select one of the following: | | 3 |
| BT 812 | Biotechnology Practicum I | |
| Program-Approved Elective | | |
| Credits | | 8 |
| Spring | | |
| Select one of the following: | | 3 |
| BT 813 | Biotechnology Practicum II | |
| Program-Approved Elective | | |
| Select one of the following: | | 3 |
| BT 603 | Human Genetics | |
| Program-Approved Elective | | |
| Credits | | 6 |
| Summer | | |
| Select one of the following: | | 3 |
| LS 610 | Reg & Fis Issues in Lab. Mgmt | |
| Program-Approved Elective | | |
| Select one of the following: | | 3 |
| BT 814 | Biotechnology Practicum III | |
| Program-Approved Elective | | |
| Credits | | 6 |
| Second Year | | |
| Fall | | |
| LS 504 | Biochemistry | 3 |
| LS 804 | Experimental Research I | 1 |
| Select one of the following: | | 3 |
| BT 815 | Biotechnology Practicum IV | |
| Program-Approved Elective | | |
| Credits | | 7 |
| Spring | | |
| BT 606 | Intro to Bioinformatics | 2 |
| BT 525 | Product Development&Management | 3 |
| LS 805 | Experimental Research II | 1 |
| Credits | | 6 |
| Total Credits | | 33 |

Curriculum: MS, Two-Year

- Part-Time, Biopharmaceutical Process Development concentration

| Course | Title | Credits |
|------------------------------|--------------------------------|-----------|
| First Year | | |
| Fall | | |
| BT 605 | Appld Microbial Biotechnology | 3 |
| Select one of the following: | | 3 |
| BT 812 | Biotechnology Practicum I | |
| Program-Approved Elective | | |
| Credits | | 6 |
| Spring | | |
| Select one of the following: | | 3 |
| BT 813 | Biotechnology Practicum II | |
| Program-Approved Elective | | |
| Select one of the following: | | 3 |
| BT 603 | Human Genetics | |
| Program-Approved Elective | | |
| Credits | | 6 |
| Summer | | |
| Select one of the following: | | 3 |
| LS 610 | Reg & Fis Issues in Lab. Mgmt | |
| Program-Approved Elective | | |
| BP 601 | Bas Engineering for Scientists | 2 |
| BP 603 | Intro to Biopharm Processing | 2 |
| Credits | | 7 |
| Second Year | | |
| Fall | | |
| LS 603 | Research Design | 2 |
| LS 804 | Experimental Research I | 1 |
| Select one of the following: | | 3 |
| BT 815 | Biotechnology Practicum IV | |
| Program-Approved Elective | | |
| Credits | | 6 |
| Spring | | |
| BT 606 | Intro to Bioinformatics | 2 |
| BT 525 | Product Development&Management | 3 |
| LS 805 | Experimental Research II | 1 |
| Credits | | 6 |
| Summer | | |
| BP 604 | Intro to Downstream Unit Oper | 4 |
| BP 605 | Intro to Upstream Unit Oper | 4 |
| Credits | | 8 |
| Total Credits | | 39 |

Curriculum: Advanced MS

- One year option without Concentration

| Course | Title | Credits |
|------------------------------|-------------------------------|---------|
| First Year | | |
| Fall | | |
| Select one of the following: | | 3 |
| LS 504 | Biochemistry | |
| Program-Approved Elective | | |
| BT 605 | Appld Microbial Biotechnology | 3 |
| LS 603 | Research Design | 2 |
| LS 804 | Experimental Research I | 1 |
| Select one of the following: | | 3 |
| LS 812 | Practicum I | |
| Program-Approved Elective | | |
| Select one of the following: | | 3 |

| Course | Title | Credits |
|------------------------------|--------------------------------|-----------|
| LS 813 | Practicum II | |
| Program-Approved Elective | | |
| Credits | | 15 |
| Spring | | |
| BT 606 | Intro to Bioinformatics | 2 |
| Select one of the following: | | 3 |
| BT 603 | Human Genetics | |
| Program-Approved Elective | | |
| BT 525 | Product Development&Management | 3 |
| Select one of the following: | | 3 |
| LS 610 | Reg & Fis Issues in Lab. Mgmt | |
| Program-Approved Elective | | |
| LS 805 | Experimental Research II | 1 |
| Select one of the following: | | 3 |
| LS 814 | Practicum III | |
| Program-Approved Elective | | |
| Select one of the following: | | 3 |
| LS 815 | Practicum IV | |
| Program-Approved Elective | | |
| Credits | | 18 |
| Total Credits | | 33 |

Curriculum: Advanced MS

- One year option Biopharmaceutical Process Development concentration

| Course | Title | Credits |
|------------------------------|--------------------------------|-----------|
| First Year | | |
| Fall | | |
| BT 605 | Appld Microbial Biotechnology | 3 |
| LS 603 | Research Design | 2 |
| LS 804 | Experimental Research I | 1 |
| Select one of the following: | | 3 |
| LS 812 | Practicum I | |
| Program-Approved Elective | | |
| Select one of the following: | | 3 |
| LS 813 | Practicum II | |
| Program-Approved Elective | | |
| Credits | | 12 |
| Spring | | |
| BT 606 | Intro to Bioinformatics | 2 |
| BT 525 | Product Development&Management | 3 |
| Select one of the following: | | 3 |
| LS 814 | Practicum III | |
| Program-Approved Elective | | |
| Select one of the following: | | 3 |
| LS 815 | Practicum IV | |
| Program-Approved Elective | | |
| Credits | | 11 |
| Summer | | |
| BP 601 | Bas Engineering for Scientists | 2 |
| BP 603 | Intro to Biopharm Processing | 2 |
| BP 604 | Intro to Downstream Unit Oper | 4 |
| BP 605 | Intro to Upstream Unit Oper | 4 |
| Credits | | 12 |
| Total Credits | | 35 |

Biotechnology (BS)

Contacts

Program Director: Scott Gyax, PhD

Email: Scott.Gyax@jefferson.edu

215-503-8184

Campus: Center City, East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/departments-programs/medical-laboratory-biotechnology/degrees-programs/bs-programs/biotechnology.html>)

Program Description

Biotechnology is one of the region’s most promising, exciting and fastest-growing industries, and evolves through rapidly changing technologies, techniques and applications.

The curriculum prides itself on the team-based projects that pervade the courses and a focus on communication and teamwork skills, consistent with the learning outcomes for the courses, is evident as the students are required to demonstrate both written and oral presentation skills throughout the curriculum.

Curriculum: BS, 2-Year Option

- Credits Required for Admission: 55

| Course | Title | Credits |
|---------------------------|---|--------------|
| First Year | | |
| Fall | | |
| BT 303 | Molecular Prep Techniques | 3 |
| BT 310 | Fundamental Molec Techniques | 4 |
| BT 405 | Appld Microbial Biotechnology | 3 |
| LS 301 | Molecular Biology | 3 |
| LS 304 | Biochemistry | 3 |
| Credits | | 16 |
| Spring | | |
| BT 410 | Molecular Diagnostic Technique | 4 |
| BT 411 | Protein Purification & Charact | 3 |
| LS 440 | Current Resrch in Biosciences | 2 |
| BT 320 | Cell and Tissue Culture | 4 |
| Program Approved Elective | | 1-2 |
| Credits | | 14-15 |
| Second Year | | |
| Fall | | |
| BT 305 | Survey of Biotech Applications | 3 |
| BT 412 | Biotechnology Practicum I | 3 |
| BT 422 | Biotechnology Practicum II | 3 |
| HCA 300 | Health Services Del & Org | 3 |
| LS 331 | Immunology | 3 |
| LS 403 | Research Design | 2 |
| LS 404 | Experimental Research I (requires approval) | 1 |
| Credits | | 18 |
| Spring | | |
| BT 325 | Product Development&Management | 3 |
| BT 403 | Human Genetics | 3 |
| BT 406 | Intro to Bioinformatics | 2 |
| BT 416 | Comprehensive Exam | 0 |
| BT 432 | Biotechnology Practicum III | 3 |
| BT 442 | Biotechnology Practicum IV | 3 |
| LS 430 | Lab Standards & Practices | 3 |

| Course | Title | Credits |
|----------------------|---|--------------|
| LS 405 | Experimental Research II (or approved elective) | 1-2 |
| Credits | | 18-19 |
| Total Credits | | 66-68 |

Curriculum: BS, 1-Year Option Without Concentration

- Credits Required for Admission: 70

| Course | Title | Credits |
|----------------------|--------------------------------|--------------|
| First Year | | |
| Fall | | |
| BT 303 | Molecular Prep Techniques | 3 |
| BT 310 | Fundamental Molec Techniques | 4 |
| BT 405 | Appld Microbial Biotechnology | 3 |
| LS 301 | Molecular Biology | 3 |
| LS 304 | Biochemistry | 3 |
| LS 331 | Immunology | 3 |
| Credits | | 19 |
| Spring | | |
| BT 320 | Cell and Tissue Culture | 4 |
| BT 325 | Product Development&Management | 3 |
| BT 403 | Human Genetics | 3 |
| BT 406 | Intro to Bioinformatics | 2 |
| BT 411 | Protein Purification & Charact | 3 |
| BT 410 | Molecular Diagnostic Technique | 4 |
| LS 440 | Current Resrch in Biosciences | 2-3 |
| Credits | | 21-22 |
| Summer | | |
| BT 412 | Biotechnology Practicum I | 3 |
| BT 416 | Comprehensive Exam | 0 |
| BT 422 | Biotechnology Practicum II | 3 |
| BT 432 | Biotechnology Practicum III | 3 |
| BT 442 | Biotechnology Practicum IV | 3 |
| LS 430 | Lab Standards & Practices | 3 |
| Credits | | 15 |
| Total Credits | | 55-56 |

Curriculum: BS, 1 Year Option Biopharmaceutical Process Development Concentration

- Credits Required for Admission: 70

| Course | Title | Credits |
|-------------------|--------------------------------|-----------|
| First Year | | |
| Fall | | |
| BT 303 | Molecular Prep Techniques | 3 |
| BT 310 | Fundamental Molec Techniques | 4 |
| BT 405 | Appld Microbial Biotechnology | 3 |
| LS 301 | Molecular Biology | 3 |
| LS 304 | Biochemistry | 3 |
| LS 331 | Immunology | 3 |
| Credits | | 19 |
| Spring | | |
| BT 320 | Cell and Tissue Culture | 4 |
| BT 325 | Product Development&Management | 3 |
| BT 403 | Human Genetics | 3 |
| BT 406 | Intro to Bioinformatics | 2 |

| Course | Title | Credits |
|----------------|--------------------------------|-----------|
| BT 410 | Molecular Diagnostic Technique | 4 |
| BT 411 | Protein Purification & Charact | 3 |
| Credits | | 19 |

| Summer | | |
|----------------------|--------------------------------|-----------|
| BP 401 | Bas Engineering for Scientists | 2 |
| BP 403 | Intro to Biopharm Processing | 2 |
| BP 405 | Intro to Upstream Unit Oper | 4 |
| BT 412 | Biotechnology Practicum I | 3 |
| BT 416 | Comprehensive Exam | 0 |
| BT 422 | Biotechnology Practicum II | 3 |
| BT 432 | Biotechnology Practicum III | 3 |
| BT 442 | Biotechnology Practicum IV | 3 |
| Credits | | 20 |
| Total Credits | | 58 |

Biotechnology (MS)

Contacts

Program Director: Scott Gyga, PhD

Email: Scott.Gyga@jefferson.edu
215-503-8184

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/departments-programs/medical-laboratory-biotechnology/degrees-programs/ms-programs/biotechnology.html>)

Program Description

- STEM designated program

Biotechnology is where life sciences and technology converge. A degree in biotechnology opens up numerous employment possibilities since practically every industry utilizes biotechnology. A biotechnology degree fosters creativity, innovation, and adaptability that is applicable to most career choices. Biotechnology is one of the region's most promising, exciting and fastest-growing industries, and evolves through rapidly changing technologies, techniques and applications.

AAS

Curriculum: 1 Year, 57 Credits

- no concentration

| Course | Title | Credits |
|-------------------|-------------------------------|-----------|
| First Year | | |
| Fall | | |
| BT 503 | Molecular Prep Techniques | 3 |
| BT 510 | Fundamental Molec Techniques | 4 |
| BT 605 | Appld Microbial Biotechnology | 3 |
| LS 501 | Molecular Biology | 3 |
| LS 504 | Biochemistry | 3 |
| LS 531 | Immunology | 3 |
| LS 603 | Research Design | 2 |
| Credits | | 21 |

| Spring | | |
|---------------|--------------------------------|---|
| BT 520 | Cell and Tissue Culture | 4 |
| BT 525 | Product Development&Management | 3 |
| BT 603 | Human Genetics | 3 |
| BT 606 | Intro to Bioinformatics | 2 |
| BT 610 | Molecular Diagnostic Technique | 4 |

| Course | Title | Credits |
|----------------------|--------------------------------|-----------|
| BT 611 | Protein Purification & Charact | 3 |
| Credits | | 19 |
| Summer | | |
| BT 812 | Biotechnology Practicum I | 3 |
| BT 813 | Biotechnology Practicum II | 3 |
| BT 814 | Biotechnology Practicum III | 3 |
| BT 815 | Biotechnology Practicum IV | 3 |
| BT 816 | Comprehensive Exam | 0 |
| LS 610 | Reg & Fis Issues in Lab. Mgmt | 3 |
| LS 803 | Contemporary Topics Research | 2 |
| Credits | | 17 |
| Total Credits | | 57 |

Curriculum: MS, 1 Year, 64 Credits

- Biopharmaceutical Process Development concentration

| Course | Title | Credits |
|--|--------------------------------|-----------|
| First Year | | |
| Fall | | |
| BT 503 | Molecular Prep Techniques | 3 |
| BT 510 | Fundamental Molec Techniques | 4 |
| BT 605 | Appld Microbial Biotechnology | 3 |
| LS 501 | Molecular Biology | 3 |
| LS 504 | Biochemistry | 3 |
| LS 531 | Immunology | 3 |
| LS 603 | Research Design | 2 |
| Credits | | 21 |
| Spring | | |
| BT 520 | Cell and Tissue Culture | 4 |
| BT 525 | Product Development&Management | 3 |
| BT 603 | Human Genetics | 3 |
| BT 606 | Intro to Bioinformatics | 2 |
| BT 610 | Molecular Diagnostic Technique | 4 |
| BT 611 | Protein Purification & Charact | 3 |
| Credits | | 19 |
| Summer | | |
| Held at Jefferson Institute for Bioprocessing (JIB) | | |
| BP 601 | Bas Engineering for Scientists | 2 |
| BP 603 | Intro to Biopharm Processing | 2 |
| BP 604 | Intro to Downstream Unit Oper | 4 |
| BP 605 | Intro to Upstream Unit Oper | 4 |
| BT 812 | Biotechnology Practicum I | 3 |
| BT 813 | Biotechnology Practicum II | 3 |
| BT 814 | Biotechnology Practicum III | 3 |
| BT 815 | Biotechnology Practicum IV | 3 |
| BT 816 | Comprehensive Exam | 0 |
| Credits | | 24 |
| Total Credits | | 64 |

Curriculum: MS, 2 Years, 57 Credits

| Course | Title | Credits |
|-------------------|-------------------------------|-----------|
| First Year | | |
| Fall | | |
| BT 503 | Molecular Prep Techniques | 3 |
| BT 510 | Fundamental Molec Techniques | 4 |
| BT 605 | Appld Microbial Biotechnology | 3 |
| LS 501 | Molecular Biology | 3 |
| LS 504 | Biochemistry | 3 |
| Credits | | 16 |

| Course | Title | Credits |
|------------------------------|---|--------------|
| Spring | | |
| BT 520 | Cell and Tissue Culture | 4 |
| BT 603 | Human Genetics | 3 |
| BT 606 | Intro to Bioinformatics | 2 |
| BT 610 | Molecular Diagnostic Technique | 4 |
| BT 611 | Protein Purification & Charact | 3 |
| Credits | | 16 |
| Second Year | | |
| Fall | | |
| BT 812 | Biotechnology Practicum I | 3 |
| BT 813 | Biotechnology Practicum II | 3 |
| MT 531 | Immunology | 3 |
| LS 603 | Research Design | 2 |
| LS 804 | Experimental Research I ¹ | 1 |
| Credits | | 12 |
| Spring | | |
| BT 525 | Product Development&Management | 3 |
| BT 814 | Biotechnology Practicum III | 3 |
| BT 815 | Biotechnology Practicum IV | 3 |
| BT 816 | Comprehensive Exam | 0 |
| LS 610 | Reg & Fis Issues in Lab. Mgmt | 3 |
| Select one of the following: | | 1-2 |
| LS 803 | Contemporary Topics Research ¹ | |
| LS 805 | Experimental Research II ¹ | |
| Credits | | 13-14 |
| Total Credits | | 57-58 |

¹ To meet the research requirement, students may take a classroom literature review-based course (LS 803 Contemporary Topics Research) or, under special circumstances, engage in a two-semester wet bench research project with a selected PI (LS 804 Experimental Research I and LS 805 Experimental Research II). Students must meet with their faculty advisor and/or program director to determine which option best meets their educational goals. LS 804 Experimental Research I and LS 805 Experimental Research II are not a substitute for nor may run concurrently with practica courses.

Curriculum: Advanced MS, 2-year, 33 credits

| Course | Title | Credits |
|--------------------|----------------------------------|----------|
| First Year | | |
| Fall | | |
| BT 605 | Appld Microbial Biotechnology | 3 |
| BT 812 | Biotechnology Practicum I | 3 |
| LS 603 | Research Design | 2 |
| Credits | | 8 |
| Spring | | |
| BT 603 | Human Genetics | 3 |
| BT 813 | Biotechnology Practicum II | 3 |
| Credits | | 6 |
| Summer | | |
| LS 610 | Reg & Fis Issues in Lab. Mgmt | 3 |
| BT 814 | Biotechnology Practicum III | 3 |
| Credits | | 6 |
| Second Year | | |
| Fall | | |
| BT 815 | Biotechnology Practicum IV | 3 |
| LS 504 | Biochemistry (approval required) | 3 |

| Course | Title | Credits |
|----------------------|--|-----------|
| LS 804 | Experimental Research I ((approval required)) | 1 |
| Credits | | 7 |
| Spring | | |
| BT 525 | Product Development&Management | 3 |
| MLSO 606 | Bioinformatics | 2 |
| LS 803 | Contemporary Topics Research | 2 |
| LS 805 | Experimental Research II (approval required) | 1 |
| Credits | | 8 |
| Total Credits | | 35 |

To meet the research requirement, students may take a classroom literature review-based course (LS 803) or, under special circumstances, engage in a two-semester wet bench research project with a selected PI (LS 804 and LS 805). Students must meet with their faculty advisor and/or program director to determine which option best meets their educational goals. LS 804 and LS 805 are not a substitute for nor may run concurrently with practica courses.

Curriculum: Advanced MS, One Year, 33 credits

| Course | Title | Credits |
|----------------------|---|-----------|
| First Year | | |
| Fall | | |
| BT 605 | Appld Microbial Biotechnology | 3 |
| BT 812 | Biotechnology Practicum I | 3 |
| BT 813 | Biotechnology Practicum II | 3 |
| LS 504 | Biochemistry | 3 |
| LS 603 | Research Design | 2 |
| LS 804 | Experimental Research I ((approval required)) | 1 |
| Credits | | 15 |
| Spring | | |
| BT 525 | Product Development&Management | 3 |
| BT 603 | Human Genetics | 3 |
| BT 606 | Intro to Bioinformatics | 2 |
| BT 814 | Biotechnology Practicum III | 3 |
| BT 815 | Biotechnology Practicum IV | 3 |
| LS 610 | Reg & Fis Issues in Lab. Mgmt | 3 |
| LS 803 | Contemporary Topics Research | 2 |
| LS 805 | Experimental Research II (approval required) | 1 |
| Credits | | 20 |
| Total Credits | | 35 |

Clinical Chemistry (Graduate Certificate)

Contacts

Program Director: Valerie Jalicke, MS, MLS(ASCP)CM

Email: Valerie.Jalicke@jefferson.edu

215-503-2792

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/departments-programs/medical-laboratory-biotechnology/degrees-programs/graduate-certificates/clinical-chemistry.html>)

Program Description

- Online & On-Campus option

Clinical chemists analyze blood and body fluids to determine their biochemical parameters and the physiological health of the patient. Clinical chemists use the latest technology to measure enzyme activity, blood gas saturation, drug and glucose concentrations and other biochemical reactions.

On Campus: 12.5 Credits

| Code | Title | Credits |
|----------------------|-------------------------------|-------------|
| MLS 523 | Clinical Chemistry I | 3.5 |
| MLS 524 | Clinical Chemistry II | 3 |
| LS 610 | Reg & Fis Issues in Lab. Mgmt | 3 |
| MLS 812 | Med Lab Sci Practicum I | 3 |
| Total Credits | | 12.5 |

Online: 9 Credits

| Code | Title | Credits |
|----------------------|------------------------------|----------|
| MLSO 523 | Clinical Chemistry I | 2.5 |
| MLSO 524 | Clinical Chemistry II | 2.5 |
| MLSO 610 | Reg & Fiscal Issues Lab Mgmt | 3 |
| MLSO 812 | Med Lab Sci Comp - Chemistry | 1 |
| Total Credits | | 9 |

Clinical Hematology (Graduate Certificate)

Contacts

Program Director: Valerie Jalicke, MS, MLS(ASCP)CM

Email: Valerie.Jalicke@jefferson.edu

215-503-2792

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/departments-programs/medical-laboratory-biotechnology/degrees-programs/graduate-certificates/hematology.html>)

Program Description

- Online & On-Campus option

Hematologists analyze the function and formation of red and white blood cells and other elements of blood and body fluids. They also monitor the components of the coagulation system.

On-campus

- Curriculum: 14 credits

| Code | Title | Credits |
|----------------------|--------------------------------|-----------|
| MLS 541 | Clinical Hematology I | 3 |
| MLS 543 | Clinical Hematology II | 3 |
| MLS 812 | Med Lab Sci Practicum I | 3 |
| LS 510 | Intro to Molecular Diagnostics | 2 |
| LS 610 | Reg & Fis Issues in Lab. Mgmt | 3 |
| Total Credits | | 14 |

Online

- Curriculum: 9 Credits

| Code | Title | Credits |
|----------------------|--------------------------------|----------|
| MLSO 510 | Intro to Molecular Diagnostics | 1 |
| MLSO 541 | Clinical Hematology I | 2 |
| MLSO 543 | Clinical Hematology II | 2 |
| MLSO 610 | Reg & Fiscal Issues Lab Mgmt | 3 |
| MLSO 812 | Med Lab Sci Comp - Chemistry | 1 |
| Total Credits | | 9 |

Clinical Microbiology (Graduate Certificate)

Contacts

Program Director: Valerie Jalicke, MS, MLS(ASCP)CM

Email: Valerie.Jalicke@jefferson.edu
215-503-2792

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/departments-programs/medical-laboratory-biotechnology/degrees-programs/graduate-certificates/microbiology.html>)

Program Description

- Online & On-Campus option

Microbiologists culture, isolate and diagnose bacteria, parasites and viruses to identify the cause of disease and the best course of treatment. The role of the microbiologist has become increasingly important in identifying and neutralizing potential biological attack agents as organisms continue to develop resistance to the drugs used to treat disease.

On-Campus

- Curriculum: 15.5 Credits

| Code | Title | Credits |
|----------------------|--------------------------------|-------------|
| MLS 512 | Clinical Microbiology I | 4 |
| MLS 513 | Clinical Microbiology II | 3.5 |
| LS 510 | Intro to Molecular Diagnostics | 2 |
| LS 610 | Reg & Fis Issues in Lab. Mgmt | 3 |
| MLS 812 | Med Lab Sci Practicum I | 3 |
| Total Credits | | 15.5 |

Online

- Curriculum: 9 Credits

| Code | Title | Credits |
|----------|--------------------------------|---------|
| MLSO 510 | Intro to Molecular Diagnostics | 1 |
| MLSO 512 | Clinical Microbiology I | 2 |
| MLSO 513 | Clinical Microbiology II | 2 |
| MLSO 610 | Reg & Fiscal Issues Lab Mgmt | 3 |

| Code | Title | Credits |
|----------------------|------------------------------|----------|
| MLSO 812 | Med Lab Sci Comp - Chemistry | 1 |
| Total Credits | | 9 |

Community & Trauma Counseling (MS)

Contacts

Program Director: Nicole G. Johnson, Ph.D., LPC, ACS, CAADC, CCDP-D, BC-TMH; Yoon Suh Moh, Ph.D., LPC (DC, PA), NCC, CRC, BC-TMH
Email: Nicole.G.Johnson@jefferson.edu; YoonSuh.Moh@jefferson.edu
215-951-2943

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/departments-programs/counseling-behavioral-health/programs/community-trauma-counseling/masters.html>)

Program Description

The Master of Science in Community and Trauma Counseling Program provides graduates with the knowledge and skills for trauma-informed practice as community mental health counselors across a breadth of settings including agency and institutional settings, professional private practice, and other environments influenced by traumatic events and extreme stress.

Curriculum: 2 Year, 60 Credits (No Concentration)

- Enrolled in Summer 2020 and prior

| Course | Title | Credits |
|-------------------|---|-----------|
| First Year | | |
| Pre-Fall | | |
| CTC 605 | Foundatn of Trauma Counseling | 3 |
| Credits | | 3 |
| Fall | | |
| CTC 601 | Orient to the Counseling Prof | 3 |
| CTC 602 | Pre-Prac:Thry & Prc of Counsel | 3 |
| CTC 604 | Psychopathology | 3 |
| CTC 607 | Adv. Counseling Theory & Prac | 3 |
| Credits | | 12 |
| Winter | | |
| CTC 605 | Foundatn of Trauma Counseling (Track up students) | 3 |
| Credits | | 3 |
| Spring | | |
| CTC 603 | Human Growth & Development | 3 |
| CTC 606 | Social and Cultural Diversity | 3 |
| CTC 651 | Neurobiology of Trauma | 3 |
| CTC 701 | Praticum | 3 |
| Credits | | 12 |
| Summer | | |
| CTC 608 | Group Work in CTC | 1.5 |
| CTC 610 | Counsln Research and Evaltn | 3 |
| CTC 613 | Attachmt Relatns & Fam Therapy | 3 |
| CTC 614 | Fndtns of Trauma&Addictv Behav | 3 |
| CTC 616 | Experiential Train Grp in CTC | 1.5 |
| Credits | | 12 |

| Course | Title | Credits |
|----------------------|--------------------------------|-----------|
| Second Year | | |
| Pre-Fall | | |
| CTC 611 | Career Development | 3 |
| Credits | | 3 |
| Fall | | |
| CTC 652 | Child Trauma & Play Therapy | 3 |
| CTC 653 | Adv Clin Interventn in Trauma | 3 |
| CTC 791 | Internship in CTC I | 3 |
| Credits | | 9 |
| Spring | | |
| CTC 609 | Counseling Assessment | 3 |
| CTC 655 | Adv Clin Int in Traum Treat II | 3 |
| CTC 792 | Internship in CTC II | 3 |
| Credits | | 9 |
| Total Credits | | 63 |

Curriculum: 2 Year, 60 Credits

- no concentration
- Enrolled during and after Summer 2021

| Course | Title | Credits |
|----------------------|--------------------------------|-----------|
| First Year | | |
| Pre-Fall | | |
| CTC 605 | Foundatn of Trauma Counseling | 3 |
| Credits | | 3 |
| Fall | | |
| CTC 601 | Orient to the Counseling Prof | 3 |
| CTC 602 | Pre-Prac:Thry & Prc of Counsel | 3 |
| CTC 603 | Human Growth & Development | 3 |
| CTC 604 | Psychopathology | 3 |
| CTC 606 | Social and Cultural Diversity | 3 |
| Credits | | 15 |
| Spring | | |
| CTC 606 | Social and Cultural Diversity | 3 |
| CTC 607 | Adv. Counseling Theory & Prac | 3 |
| CTC 610 | Counsln Research and Evaltn | 3 |
| CTC 701 | Praticum | 3 |
| Credits | | 12 |
| Summer | | |
| CTC 608 | Group Work in CTC | 1.5 |
| CTC 609 | Counseling Assessment | 3 |
| CTC 613 | Attachmt Relatns & Fam Thery | 3 |
| CTC 614 | Fndtns of Trauma&Addictv Behav | 3 |
| CTC 616 | Experiential Train Grp in CTC | 1.5 |
| Credits | | 12 |
| Second Year | | |
| Pre-Fall | | |
| CTC 611 | Career Development | 3 |
| Credits | | 3 |
| Fall | | |
| CTC 652 | Child Trauma & Play Therapy | 3 |
| CTC 653 | Adv Clin Interventn in Trauma | 3 |
| CTC 791 | Internship in CTC I | 3 |
| Credits | | 9 |
| Spring | | |
| CTC 651 | Neurobiology of Trauma | 3 |
| CTC 655 | Adv Clin Int in Traum Treat II | 3 |
| CTC 792 | Internship in CTC II | 3 |
| Credits | | 9 |
| Total Credits | | 57 |

| Course | Title | Credits |
|----------------------|----------------------|-----------|
| CTC 792 | Internship in CTC II | 3 |
| Credits | | 9 |
| Total Credits | | 63 |

- Enrolled during & after Summer 2022

| Course | Title | Credits |
|----------------------|--------------------------------|-----------|
| First Year | | |
| Pre-Fall | | |
| CTC 605 | Foundatn of Trauma Counseling | 3 |
| Credits | | 3 |
| Fall | | |
| CTC 601 | Orient to the Counseling Prof | 3 |
| CTC 602 | Pre-Prac:Thry & Prc of Counsel | 3 |
| CTC 604 | Psychopathology | 3 |
| Credits | | 9 |
| Spring | | |
| CTC 603 | Human Growth & Development | 3 |
| CTC 607 | Adv. Counseling Theory & Prac | 3 |
| CTC 610 | Counsln Research and Evaltn | 3 |
| CTC 701 | Praticum | 3 |
| Credits | | 12 |
| Summer | | |
| CTC 608 | Group Work in CTC | 1.5 |
| CTC 609 | Counseling Assessment | 3 |
| CTC 613 | Attachmt Relatns & Fam Thery | 3 |
| CTC 614 | Fndtns of Trauma&Addictv Behav | 3 |
| CTC 616 | Experiential Train Grp in CTC | 1.5 |
| Credits | | 12 |
| Second Year | | |
| Pre-Fall | | |
| CTC 611 | Career Development | 3 |
| Credits | | 3 |
| Fall | | |
| CTC 652 | Child Trauma & Play Therapy | 3 |
| CTC 653 | Adv Clin Interventn in Trauma | 3 |
| CTC 791 | Internship in CTC I | 3 |
| Credits | | 9 |
| Spring | | |
| CTC 651 | Neurobiology of Trauma | 3 |
| CTC 655 | Adv Clin Int in Traum Treat II | 3 |
| CTC 792 | Internship in CTC II | 3 |
| Credits | | 9 |
| Total Credits | | 57 |

Community & Trauma Counseling: Art Therapy Concentration (MS)

Contacts

Program Director: Nicole G. Johnson, Ph.D., LPC, ACS, CAADC, CCDP-D, BC-TMH

Email: Nicole.G.Johnson@jefferson.edu
215-951-2943

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/departments-programs/>)

counseling-behavioral-health/programs/community-trauma-counseling/ms-art-therapy.html)

Curriculum: 2 Years, 69 Credits

- enrolled during and after Summer 2021

| Course | Title | Credits |
|----------------------|---|-----------|
| Summer | | |
| Year 0 Summer | | |
| CTC 510 | History & Theory of Art Therapy | 3 |
| CTC 512 | Ethics, Stan & Prof Orient in AT | 3 |
| CTC 520 | Studio & Techn of Art Therapy | 3 |
| Credits | | 9 |
| First Year | | |
| Pre-Fall | | |
| CTC 605 | Foundatn of Trauma Counseling | 3 |
| Credits | | 3 |
| Fall | | |
| CTC 601 | Orient to the Counseling Prof | 3 |
| CTC 602 | Pre-Prac:Thry & Prc of Counsel | 3 |
| CTC 604 | Psychopathology | 3 |
| CTC 606 | Social and Cultural Diversity | 3 |
| Credits | | 12 |
| Spring | | |
| CTC 603 | Human Growth & Development | 3 |
| CTC 607 | Adv. Counseling Theory & Prac | 3 |
| CTC 610 | Counsln Research and Evaltn | 3 |
| CTC 701 | Praticum | 3 |
| Credits | | 12 |
| Summer | | |
| CTC 609 | Counseling Assessment | 3 |
| CTC 613 | Attachmt Relatns & Fam Thery | 3 |
| CTC 614 | Fndtns of Trauma&Addictv Behav | 3 |
| CTC 620 | Grp Work in Art Thry & Cousl ¹ | 3 |
| Credits | | 12 |
| Second Year | | |
| Pre-Fall | | |
| CTC 611 | Career Development | 3 |
| Credits | | 3 |
| Fall | | |
| CTC 652 | Child Trauma & Play Therapy | 3 |
| CTC 653 | Adv Clin Intervntn in Trauma | 3 |
| CTC 791 | Internship in CTC I | 3 |
| Credits | | 9 |
| Spring | | |
| CTC 651 | Neurobiology of Trauma | 3 |
| CTC 619 | Art Therapy Assessment ² | 3 |
| CTC 792 | Internship in CTC II | 3 |
| Credits | | 9 |
| Total Credits | | 69 |

¹ Replaces CTC 608 Group Work in CTC and CTC 616 Experiential Train Grp in CTC

² Replaces CTC 655 Adv Clin Int in Traum Treat II

Community & Trauma Counseling: Child Trauma & Play Therapy Concentration (MS)

Contacts

Program Director: Nicole G. Johnson, PhD, LPC, ACS, CAADC, CCDP-D, BC-TMH

Email: Nicole.G.Johnson@jefferson.edu
215-951-2943

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/departments-programs/counseling-behavioral-health/programs/community-trauma-counseling/ms-child-trauma-play-therapy-concentration.html>)

Curriculum: 2 Years, 66 Credits

| Course | Title | Credits |
|--------------------|---|-----------|
| First Year | | |
| Pre-Fall | | |
| CTC 605 | Foundatn of Trauma Counseling | 3 |
| Credits | | 3 |
| Fall | | |
| CTC 601 | Orient to the Counseling Prof | 3 |
| CTC 602 | Pre-Prac:Thry & Prc of Counsel | 3 |
| CTC 603 | Human Growth & Development | 3 |
| CTC 604 | Psychopathology | 3 |
| Credits | | 12 |
| Spring | | |
| CTC 606 | Social and Cultural Diversity | 3 |
| CTC 607 | Adv. Counseling Theory & Prac | 3 |
| CTC 610 | Counsln Research and Evaltn | 3 |
| CTC 701 | Praticum | 3 |
| Credits | | 12 |
| Summer | | |
| CTC 608 | Group Work in CTC | 1.5 |
| CTC 609 | Counseling Assessment | 3 |
| CTC 613 | Attachmt Relatns & Fam Thery | 3 |
| CTC 614 | Fndtns of Trauma&Addictv Behav | 3 |
| CTC 616 | Experiential Train Grp in CTC | 1.5 |
| Credits | | 12 |
| Second Year | | |
| Pre-Fall | | |
| CTC 611 | Career Development | 3 |
| Credits | | 3 |
| Fall | | |
| CTC 652 | Child Trauma & Play Therapy | 3 |
| CTC 653 | Adv Clin Intervntn in Trauma | 3 |
| CTC 791 | Internship in CTC I | 3 |
| CTC 660 | FNDS: Child-Centered Play Ther ¹ | 3 |
| Credits | | 12 |
| Spring | | |
| CTC 651 | Neurobiology of Trauma | 3 |
| CTC 661 | Hist Sig Appr: Dir. Play Thera ¹ | 3 |
| CTC 662 | ISEM: Intersectionality & PT ² | 3 |

| Course | Title | Credits |
|----------------------|----------------------|-----------|
| CTC 792 | Internship in CTC II | 3 |
| Credits | | 12 |
| Total Credits | | 66 |

Community & Trauma Counseling: Trauma, Addiction & Recovery Concentration (MS)

Contacts

Program Director: Nicole G. Johnson, Ph.D., LPC, ACS, CAADC, CCDP-D, BC-

Email: Nicole.G.Johnson@jefferson.edu

Campus: East Falls

- Enrolled during & after Summer 2021

| Course | Title | Credits |
|----------------------|--------------------------------|-----------|
| First Year | | |
| Pre-Fall | | |
| CTC 605 | Foundatn of Trauma Counseling | 3 |
| Credits | | 3 |
| Fall | | |
| CTC 601 | Orient to the Counseling Prof | 3 |
| CTC 602 | Pre-Prac:Thry & Prc of Counsel | 3 |
| CTC 603 | Human Growth & Development | 3 |
| CTC 604 | Psychopathology | 3 |
| Credits | | 12 |
| Spring | | |
| CTC 606 | Social and Cultural Diversity | 3 |
| CTC 607 | Adv. Counseling Theory & Prac | 3 |
| CTC 610 | Counsln Research and Evaltn | 3 |
| CTC 701 | Praticum | 3 |
| Credits | | 12 |
| Summer | | |
| CTC 608 | Group Work in CTC | 1.5 |
| CTC 609 | Counseling Assessment | 3 |
| CTC 613 | Attachmt Relatns & Fam Therpy | 3 |
| CTC 614 | Fndtns of Trauma&Addictv Behav | 3 |
| CTC 616 | Experiential Train Grp in CTC | 1.5 |
| Credits | | 12 |
| Second Year | | |
| Pre-Fall | | |
| CTC 611 | Career Development | 3 |
| Credits | | 3 |
| Fall | | |
| CTC 652 | Child Trauma & Play Therapy | 3 |
| CTC 653 | Adv Clin Interventn in Trauma | 3 |
| CTC 791 | Internship in CTC I | 3 |
| CTC 670 | Screening, Assess, & Treatment | 3 |
| Credits | | 12 |
| Spring | | |
| CTC 651 | Neurobiology of Trauma | 3 |
| CTC 671 | Ethical Treatmnt & Intervntn | 3 |
| CTC 672 | Neurobio & Psychopharm of Addc | 3 |
| CTC 792 | Internship in CTC II | 3 |
| Credits | | 12 |
| Total Credits | | 66 |

Computed Tomography (Undergraduate Certificate)

Contacts

Program Director: Gerard Keimer, M.Ed.,R.T.(R)(CT)(ARRT)

Email: Gerard.Keimer@jefferson.edu

Campus: Center City

Program Website: (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/departments-programs/medical-imaging-radiation-sciences/degrees-programs/certificates/ct-certificate.html>)

Program Description

This part-time, one-year, online or on campus program is designed for certified radiographers, radiation therapists or nuclear medicine technologists to expand their education in computed tomography (CT).

Curriculum: 18 Credits, Part-Time

| Code | Title | Credits |
|----------------------|--------------------------------|-----------|
| RSPC 400 | CT Physics & Instrumentation | 3 |
| RSPC 401 | Cross - Sectional Anatomy | 1 |
| RSPC 412 | PET/CT Clinical I | 1 |
| RSPC 413 | PET/CT Clinical II | 1 |
| RSPC 414 | PET/CT Clinical III | 1 |
| RSPC 431 | CT Procedures I | 3 |
| RSCC 473 | CT Review Seminar | 2 |
| RSPC 432 | CT Procedures II | 3 |
| RSPC 402 | Cross-Sectional Anatomy II | 1 |
| RSPC 533 | CT Procedures Simulation Lab I | 1 |
| RSPC 534 | CT Procedures Sim Lab II | 1 |
| Total Credits | | 18 |

Couple & Family Therapy (MFT)

Contacts

Program Director: Erica J. Wilkins, PhD, LMFT

Campus: Center City

Program Website: (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/departments-programs/counseling-behavioral-health/programs/couple-family-therapy.html>)

Program Description

This is a full-time, two-year, 66-credit program, which is modeled on the core curriculum developed by the Commission on Accreditation for Marriage and Family Therapy Education (COAMFTE), focusing on key areas of contemporary practice, including:

- Couple and Family Therapy
- Sex Therapy
- Unique challenges with various types of couple and family relationships
- Trauma
- Medical family therapy
- Culturally competent practice with diverse populations

Curriculum: 2 Years, 66-69 Credits

| Course | Title | Credits |
|------------------------------|---|-----------|
| First Year | | |
| Fall | | |
| CFTP 501 | Theory & Practice of FT I | 3 |
| CFTP 503 | Foundations of Systemic Pract | 3 |
| CFTP 505 | Life Span Dvlp Systemic Perspe | 3 |
| CFTP 506 | CFTP Practicum I | 3 |
| CFTP 509 | Prof, Eth & Legal Issues/CFT | 3 |
| Credits | | 15 |
| Spring | | |
| CFTP 502 | Theory & Practice of FT II | 3 |
| CFTP 507 | CFTP Practicum II | 3 |
| CFTP 514 | Theory&Practice/Couple Therapy | 3 |
| CFTP 513 | Sys/Rel Assess&MHdiag&Treatmen | 3 |
| CFTP 511 | Intro Sex Therapy: Human Sexua | 3 |
| Credits | | 15 |
| Summer | | |
| CFTP 512 | Live Supervision I | 3 |
| CFTP 508 | CFTP Practicum III | 3 |
| Credits | | 6 |
| Second Year | | |
| Fall | | |
| CFTP 601 | Implications for Diver in Prac | 3 |
| CFTP 602 | Research in CFTP | 3 |
| Select one of the following: | | 3 |
| CFTP 603 | Advanced Sex Therapy I ¹ | |
| CFTP 605 | Issue of Violence & Abuse Fami ² | |
| CFTP 607 | CFTP Practicum IV | 3 |
| CFTP 610 | Trauma-Interv/ContempContext | 3 |
| Credits | | 15 |
| Spring | | |
| CFTP 610 | Trauma-Interv/ContempContext | 3 |
| Select one of the following: | | 3 |
| CFTP 604 | Advanced Sex Therapy II ¹ | |
| CFTP 611 | Medical Family Therapy ² | |
| CFTP 612 | Families in Transition | 3 |
| CFTP 613 | CFTP Masters Project | 3 |
| CFTP 608 | CFTP Practicum V | 3 |
| Credits | | 15 |
| Summer | | |
| CFTP 608 | CFTP Practicum V (if needed) ³ | 3 |
| Credits | | 3 |
| Total Credits | | 69 |

¹ Sex Therapy Track Course

² Couple & Family Therapy Track Course

³ May be required to complete Practicum V through the summer (June through August)

Crisis and Emergency Management (Executive MS)

Contacts

Program Director: David Nitsch, BS, MPH, NREMT-P,
Email: David.Nitsch@jefferson.edu

Program Description Curriculum: 30 credits Cytotechnology & Cell Sciences (BS)

Contacts

Program Director: Kelly Lennen, MS, CT (ASCP)

Email: Kelly.Lennen@jefferson.edu
215-503-2806

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/departments-programs/medical-laboratory-biotechnology/degrees-programs/bs-programs/cytotechnology-cell.html>)

Program Description

Cytotechnologists are experts of cell and tissue structure morphology and function, and using microscopes, automated imaging systems and sophisticated laboratory techniques to detect and diagnose diseases. Cytotechnologists work both independently and collaboratively with pathologists, radiologists, oncologists and other members of a healthcare team.

Professionals in this field:

- Select and perform molecular and immunologic tests that help to personalize patient care Diagnose mysterious respiratory illnesses
- Assist clinicians in collecting and evaluating specimens
- Identify precancerous cells at their earliest and most curable stage

Curriculum: 2 Years, 66.5 Credits

- Credits Required for Admission: 55

| Course | Title | Credits |
|----------------------|--------------------------------|-------------|
| First Year | | |
| Fall | | |
| LS 301 | Molecular Biology | 3 |
| LS 311 | Functional Histology | 2.5 |
| CT 301 | Principles of Cell Analysis | 2 |
| CT 311 | Cytopathology I | 5 |
| CT 312 | Cytopathology I Laboratory | 3.5 |
| Designated Electives | | 3 |
| Credits | | 19 |
| Spring | | |
| LS 413 | Pathology | 2 |
| CT 310 | Cyto&Surg Pathology Techniques | 2 |
| LS 310 | Intro to Molecular Diagnostics | 2 |
| CT 315 | Cytopathology II | 5 |
| CT 317 | Cytopathology III | 5.5 |
| Credits | | 16.5 |
| Second Year | | |
| Fall | | |
| LS 331 | Immunology | 3 |
| CT 412 | Cytotechnology Practicum I | 3 |
| CT 413 | Cytotechnology Practicum II | 3 |
| Designated Electives | | 6 |
| Credits | | 15 |

| Course | Title | Credits |
|----------------------|--------------------------------|-------------|
| Spring | | |
| LS 440 | Current Resrch in Biosciences | 2 |
| CT 414 | Cytotechnology Practicum III | 3 |
| CT 415 | Cytotechnology Practicum IV | 3 |
| CT 416 | Comprehensive Exam | 0 |
| CT 325 | CellularMolecular&ImmunoDiagno | 3 |
| LS 430 | Lab Standards & Practices | 3 |
| CT 375 | Cytotechnology Seminar | 2 |
| Credits | | 16 |
| Total Credits | | 66.5 |

Curriculum: 1 Year, 57.5 Credits

- Credits Required for Admission: 70

| Course | Title | Credits |
|----------------------|--------------------------------|-------------|
| First Year | | |
| Fall | | |
| CT 301 | Principles of Cell Analysis | 2 |
| CT 311 | Cytopathology I | 5 |
| CT 312 | Cytopathology I Laboratory | 3.5 |
| LS 301 | Molecular Biology | 3 |
| LS 311 | Functional Histology | 2.5 |
| LS 331 | Immunology | 3 |
| Credits | | 19 |
| Spring | | |
| LS 413 | Pathology | 2 |
| LS 440 | Current Resrch in Biosciences | 2 |
| LS 310 | Intro to Molecular Diagnostics | 2 |
| CT 310 | Cyto&Surg Pathology Techniques | 2 |
| CT 315 | Cytopathology II | 5 |
| CT 317 | Cytopathology III | 5.5 |
| CT 325 | CellularMolecular&ImmunoDiagno | 3 |
| Credits | | 21.5 |
| Summer | | |
| CT 416 | Comprehensive Exam | 0 |
| LS 430 | Lab Standards & Practices | 3 |
| CT 412 | Cytotechnology Practicum I | 3 |
| CT 413 | Cytotechnology Practicum II | 3 |
| CT 414 | Cytotechnology Practicum III | 3 |
| CT 415 | Cytotechnology Practicum IV | 3 |
| CT 375 | Cytotechnology Seminar | 2 |
| Credits | | 17 |
| Total Credits | | 57.5 |

Cytotechnology & Cell Sciences (BS/MS)

Contacts

Program Director: Kelly Lennen, MS, CT (ASCP)

Email: Kelly.Lennen@jefferson.edu

215-503-2806

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/departments-programs/medical-laboratory-biotechnology/degrees-programs/bs-programs/cytotechnology-cell.html>)

Curriculum: 2 Years, 69.5-72.5

- Credits Required for Admissions: 82

| Course | Title | Credits |
|------------------------------|--|------------------|
| First Year | | |
| Fall | | |
| Undergraduate Phase | | |
| LS 301 | Molecular Biology | 3 |
| LS 311 | Functional Histology | 2.5 |
| CT 301 | Principles of Cell Analysis | 2 |
| CT 311 | Cytopathology I | 5 |
| CT 312 | Cytopathology I Laboratory | 3.5 |
| LS 331 | Immunology | 3 |
| Designated Electives | | 3 |
| Credits | | 22 |
| Spring | | |
| LS 540 | Current Resrch in Biosciences | 3 |
| LS 310 | Intro to Molecular Diagnostics | 2 |
| CT 310 | Cyto&Surg Pathology Techniques | 2 |
| CT 315 | Cytopathology II | 5 |
| CT 317 | Cytopathology III | 5.5 |
| Credits | | 17.5 |
| Second Year | | |
| Fall | | |
| GRADUATE PHASE | | |
| LS 603 | Research Design | 2 |
| LS 640 | Methods in Bioscience Edu | 3 |
| CT 812 | Cytotechnology Practicum I | 3 |
| CT 813 | Cytotechnology Practicum II | 3 |
| Select one of the following: | | 1-4 |
| LS 644 | Laboratory Ed and Instruction (requires program approval) | |
| Credits | | 12-15 |
| Spring | | |
| LS 610 | Reg & Fis Issues in Lab. Mgmt | 3 |
| LS 613 | Pathology | 2 |
| LS 803 | Contemporary Topics Research | 2 |
| CT 814 | Cytotechnology Practicum III | 3 |
| CT 525 | CellularMolecular&ImmunoDiagno | 3 |
| CT 815 | Cytotechnology Practicum IV | 3 |
| CT 816 | Comprehensive Exam | 0 |
| CT 575 | Cytotechnology Seminar | 2 |
| Credits | | 18 |
| Total Credits | | 69.5-72.5 |

Cytotechnology & Cell Sciences (MS)

Contacts

Program Director: Kelly Lennen, MS, CT (ASCP)

Email: Kelly.Lennen@jefferson.edu

215-503-2806

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/departments-programs/medical-laboratory-biotechnology/degrees-programs/ms-programs/cytotechnology-cell.html>)

Curriculum: 2 Years, 59.5 Credits

| Course | Title | Credits |
|----------------------|---|-------------|
| First Year | | |
| Fall | | |
| LS 501 | Molecular Biology | 3 |
| LS 511 | Functional Histology | 2.5 |
| CT 501 | Principles of Cell Analysis | 2 |
| CT 511 | Cytopathology I | 5 |
| CT 512 | Cytopathology I Laboratory | 3.5 |
| Credits | | 16 |
| Spring | | |
| LS 613 | Pathology | 2 |
| CT 510 | Cyto&Surg Pathology Techniques | 2 |
| CT 515 | Cytopathology II | 5 |
| LS 510 | Intro to Molecular Diagnostics | 2 |
| CT 517 | Cytopathology III | 5.5 |
| Credits | | 16.5 |
| Second Year | | |
| Fall | | |
| LS 531 | Immunology | 3 |
| CT 812 | Cytotechnology Practicum I | 3 |
| CT 813 | Cytotechnology Practicum II | 3 |
| LS 603 | Research Design | 2 |
| LS 804 | Experimental Research I (optional Course, requires approval) | 1 |
| Credits | | 12 |
| Spring | | |
| CT 525 | CellularMolecular&ImmunoDiagno | 3 |
| CT 575 | Cytotechnology Seminar | 2 |
| LS 610 | Reg & Fis Issues in Lab. Mgmt | 3 |
| CT 815 | Cytotechnology Practicum IV | 3 |
| CT 814 | Cytotechnology Practicum III | 3 |
| CT 816 | Comprehensive Exam | 0 |
| LS 803 | Contemporary Topics Research or LS 805 (with approval) | 2 |
| Credits | | 16 |
| Total Credits | | 60.5 |

Curriculum: 1 Year, 59.5 Credits

| Course | Title | Credits |
|-------------------|--------------------------------|-------------|
| First Year | | |
| Fall | | |
| LS 501 | Molecular Biology | 3 |
| LS 603 | Research Design | 2 |
| LS 511 | Functional Histology | 2.5 |
| CT 501 | Principles of Cell Analysis | 2 |
| CT 511 | Cytopathology I | 5 |
| LS 531 | Immunology | 3 |
| CT 512 | Cytopathology I Laboratory | 3.5 |
| Credits | | 21 |
| Spring | | |
| LS 510 | Intro to Molecular Diagnostics | 2 |
| CT 510 | Cyto&Surg Pathology Techniques | 2 |
| CT 515 | Cytopathology II | 5 |
| CT 517 | Cytopathology III | 5.5 |
| CT 525 | CellularMolecular&ImmunoDiagno | 3 |
| LS 613 | Pathology | 2 |
| Credits | | 19.5 |
| Summer | | |
| LS 610 | Reg & Fis Issues in Lab. Mgmt | 3 |

| Course | Title | Credits |
|----------------------|------------------------------|-------------|
| CT 575 | Cytotechnology Seminar | 2 |
| CT 812 | Cytotechnology Practicum I | 3 |
| CT 813 | Cytotechnology Practicum II | 3 |
| CT 814 | Cytotechnology Practicum III | 3 |
| CT 815 | Cytotechnology Practicum IV | 3 |
| CT 816 | Comprehensive Exam | 0 |
| LS 803 | Contemporary Topics Research | 2 |
| Credits | | 19 |
| Total Credits | | 59.5 |

Curriculum: 2 Years, 30 Credits

- Advanced MS in Cytotechnology and Cell Sciences, Part-time
- Eligibility for admissions requires undergraduate degree and ASCP certification

| Course | Title | Credits |
|----------------------|--|--------------|
| First Year | | |
| Fall | | |
| LS 603 | Research Design | 2 |
| LS 640 | Methods in Bioscience Edu | 3 |
| Designated Electives | | 13 |
| Credits | | 18 |
| Spring | | |
| Designated Electives | | 8 |
| Credits | | 8 |
| Summer | | |
| LS 610 | Reg & Fis Issues in Lab. Mgmt | 3 |
| Designated Electives | | 3 |
| Credits | | 6 |
| Second Year | | |
| Fall | | |
| LS 531 | Immunology | 3 |
| Designated Electives | | 3 |
| LS 804 | Experimental Research I Approval Required | 1 |
| Credits | | 7 |
| Spring | | |
| LS 613 | Pathology | 2 |
| Designated Electives | | 3-4 |
| Select One Below | | |
| LS 803 | Contemporary Topics Research or LS 805 | 2 |
| Credits | | 7-8 |
| Total Credits | | 46-47 |

- 1 Program approval and minimum course grade requirements must be met to register for LS 644.
- 2 To meet entry-level competency requirements for immunology credits, students entering as certified cytotechnology graduates who have not completed three credits in immunology are required to enroll in LS 531 Immunology. Certified cytotechnology graduates who have completed three credits of immunology may enroll in a program-approved elective.
- 3 To meet the research requirement, students may take a classroom literature review-based course (LS 803) or, under special circumstances, engage in a two-semester wet bench research project with a selected PI (LS 804 and LS 805). Students must meet with their faculty advisor and/or program director to determine which

option best meets their educational goals. LS 804 and LS 805 are not a substitute for nor may run concurrently with practica courses.

Curriculum: 1 Year, 30 Credits

- Advanced MS in Cytotechnology and Cell Sciences

| Course | Title | Credits |
|---|---|--------------|
| First Year | | |
| Fall | | |
| Designated Electives | | 8-9 |
| LS 531 | Immunology ¹ | 3 |
| LS 603 | Research Design | 2 |
| LS 640 | Methods in Bioscience Edu | 3 |
| LS 804 | Experimental Research I (approval) ² | 1 |
| optional, approval required | | |
| Credits | | 17-18 |
| Spring | | |
| LS 610 | Reg & Fis Issues in Lab. Mgmt | 3 |
| LS 613 | Pathology | 2 |
| LS 803 | Contemporary Topics Research ² | |
| or LS 805 (optional, approval required) | | |
| Designated Electives | | 8 |
| Credits | | 13 |
| Total Credits | | 30-31 |

¹ To meet entry-level competency requirements for immunology credits, students entering as certified cytotechnology graduates who have not completed three credits in immunology are required to enroll in LS 531 Immunology. Certified cytotechnology graduates who have completed three credits of immunology may enroll in a program-approved elective.

² To meet the research requirement, students may take a classroom literature review-based course (LS 803) or, under special circumstances, engage in a two-semester wet bench research project with a selected PI (LS 804 and LS 805). Students must meet with their faculty advisor and/or program director to determine which option best meets their educational goals. LS 804 and LS 805 are not a substitute for nor may run concurrently with practica courses.

Emergency & Disaster Management (Graduate Certificate)

Contacts

Program Director: David Nitsch, BS, MPH, NREMT-P,

Email: David.Nitsch@jefferson.edu

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/departments-programs/emergency-disaster-management/certificate-emergency-disaster-management.html>)

Program Description

Jefferson's Master of Science in Emergency & Disaster Management program prepares students to manage and develop the increasingly complex disaster management and preparedness requirements of the 21st century.

Certificate Curriculum: 1 Year, 9 Credits

| Code | Title | Credits |
|----------------------|-------------------------------|----------|
| EDM 610 | Foundations in Emergency Mgmt | 3 |
| EDM 640 | Logistic Mgmt for Disasters | 3 |
| EDM Elective | | 3 |
| Total Credits | | 9 |

Emergency & Disaster Management (MS)

Contacts

Program Director: David Nitsch, BS, MPH, NREMT-P,

Email: David.Nitsch@jefferson.edu

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/departments-programs/emergency-disaster-management/masters.html>)

Program Description

Jefferson's Master of Science in Emergency & Disaster Management program prepares students to manage and develop the increasingly complex disaster management and preparedness requirements of the 21st century.

The Program offers a dual Emergency & Disaster Management (MS) and Public Health (MPH) which can be found in the catalog at Dual MS/MPH (p. 162)

MS Curriculum: 1-3 Year, 36 Credits

| Code | Title | Credits |
|--|---|---------|
| Core Curriculum ¹ | | |
| EDM 610 | Foundations in Emergency Mgmt | 3 |
| EDM 631 | Org Mgmt & Comm in Disasters | 3 |
| EDM 635 | Pysch Aspects of Disasters | 3 |
| EDM 639 | Prin of Disaster Exce & Drills ² | 3 |
| EDM 643 | Public Health ImplOf Disasters | 3 |
| EDM 640 | Logistic Mgmt for Disasters | 3 |
| EDM 651 | Appl Research Meth & Statistic | 3 |
| EDM 755 | Cap Exp in Disaster Med & Mgmt | 3 |
| Designated Electives | | 12 |
| Select 4 of the Following | | |
| Electives (Designated) | | |
| Select 12 credits from the following electives: 12 | | |
| EDM 612 | Fnds in Homeland Sec. & Def. | |
| EDM 613 | Intl & Humanita Disaster Mgmt | |
| EDM 615 | Hazardous Materls & Ind Saftey | |
| EDM 617 | GIS in Emergency Management | |
| EDM 619 | Natural Disasters | |
| EDM 623 | Weapons of Mass Destruction | |
| EDM 624 | Org Risk and Crisis Mgmt | |
| EDM 625 | Bus Continuity-Plan for Crisis | |

| Code | Title | Credits |
|----------------------|--------------------------------|-----------|
| EDM 626 | Org. Recovery Prep and Plan | |
| EDM 627 | Principles of Terrorism | |
| EDM 648 | Emergency Preparedness | |
| EDM 649 | Healthcare Emergency Mgmt. | |
| EDM 653 | Clinical Disaster Medicine | |
| EDM 791 | Internship Disaster Med & Mgmt | |
| EDM 797 | Special Topics in DMM | |
| Total Credits | | 48 |

¹ In addition to the eight required courses, students are recommended to complete 100 hours of experiential learning.

² Concurrent with EDM 700 EDM Conference

Health & Human Services (AS)

Associate Dean Academic Programs: Laura Pontiggia, PhD (<https://catalog.jefferson.edu/colleges-schools/college-health-professions-jchp/institute-health-human-services-as/>)

Program Description

- Enrollment is restricted to District 1199C Training & Upgrading Fund

This 60-credit program builds on technical training programs that have been approved by the Pennsylvania Department of Education for post-secondary credit and that have articulation agreements with the University.

Curriculum: 60 credits

- Continuing & Professional Studies, Accelerated Program

| Code | Title | Credits |
|------------------------|--------------------------------|---------|
| General Education Core | | |
| WRIT 101AC | Writing Seminar I: Written Com | 3 |
| COMM 320 | Professional Comm Skills | 3 |
| MATH 215 | College Algebra | 3 |
| SCI 101 | Environmental Science | 3 |
| HIST 114AC | Amer in Focus: Themes US Hist | 3 |
| PSYC 100 | Introduction to Psychology | 3 |
| HLSV 210 | Eth Issues Hlth&Hmn Svcs Prov | 3 |
| IT 101 | Computer Applications | 3 |
| Major Requirements | | |
| PSYC 251 | Abnormal Psych | 3 |
| PSYC 263 | Inter Relations&Sm Grp Dynamcs | 3 |
| COMM 310 | Communication Theory &Dynamics | 3 |
| BHLT 290 | Clinical Inter/Behavioral Hlth | 21 |

Health Insurance Management (BS)

Associate Dean Academic Programs: Laura Pontiggia, PhD (<https://catalog.jefferson.edu/colleges-schools/college-health-professions-jchp/institute-health-insurance-bs/Laura.Pontiggia@jefferson.edu>)

Program Description Curriculum: 120 credits Health Professions Pathways (Accelerated Pathway)

Associate Dean Academic Programs: Laura Pontiggia, PhD (<https://catalog.jefferson.edu/colleges-schools/college-health-professions-jchp/institute-health-professions-pathway-bs/Laura.Pontiggia@jefferson.edu>)

Program Description Curriculum: 120 credits Health Sciences (BS)

Contacts

Program Director: Louis N. Hunter, PT, DPT

Email: Louis.Hunter@jefferson.edu

215-951-0836

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/departments-programs/health-sciences/health-sciences.html>)

Program Description

The Health Sciences program provides a strong foundation in the health, psychology and science disciplines combined with unique practical and clinical experiences. Together, these prepare students for a range of professional opportunities, from direct entry into a health career to further education in graduate or health professions programs. Students earn credit while building clinical experience through patient contact and volunteer hours integrated into health sciences coursework. Customizable General Electives allow students to develop an area of specialization, pursue a minor concentration, or complete credit-bearing internships in an emergency room, physician's office, rehabilitation facility, or other area matched to future career interests. Students also have opportunities to study away or participate in medical mission trips.

Learning Goals/Outcomes

- Apply scientific and psychological concepts to make informed clinical decisions.
- Explain factors that can influence health and well-being.
- Apply principles of professionalism, respect, and ethical behavior (in class and in the field).
- Demonstrate an understanding of a range of health professions' scopes of practice and responsibilities to make informed career decisions.

Curriculum: 4 Years, 120 Credits

| Course | Title | Credits |
|-------------------|------------------------------|---------|
| First Year | | |
| FYS 100 | Pathways Seminar | 1 |
| WRIT 101 | Writing Sem I: Written Comm. | 3 |
| AVIS 101 | American Visions | 3 |
| MATH 102 | Pre-Calculus (or higher) | 3 |

| Course | Title | Credits |
|---|--|----------------|
| WRIT 201 | Writing Seminar II: Multi Comm | 3 |
| SCI Choice: BIOL, PHYS, SCI, CHEM | | 8 |
| BIOL 103 | Biology I | 3 |
| BIOL 103L | Biology I Lab | 1 |
| or BIOL 112 | | |
| BIOL 104 | Biology II | 3 |
| BIOL 104L | Biology II Lab | 1 |
| or SCI Elective | | |
| HSCI 100 | Intro to Health Professions | 1 |
| Credits | | 30 |
| Second Year | | |
| HSCI 230 | Intro to Healthcare | 2 |
| PSYC 101 | Intro to Psychology | 3 |
| GDIV 2XX | Global Diversity | 3 |
| ADIV 2XX | American Diversity | 3 |
| ETHC 2XX | Ethics | 3 |
| PSYC 201 | Abnormal Psychology | 3 |
| HSCI 3XX | Health Sciences Electives | 6 |
| BIOL 201 | Human Anatomy and Physiology I | 3 |
| BIOL 201L | Human Anat & Physiology I Lab | 1 |
| BIOL 202 & 202L | Human Anatomy & Physiology II and Human Anat & Physiology II Lab | 4 |
| Credits | | 31 |
| Third Year | | |
| PSYC 213 | Developmental Psychology | 3 |
| CGIS 300 | Contemporary Global Issues | 3 |
| ISEM 3XX | Integrative Seminar | 3 |
| HSCI XXX | Writing Intensive Elective | 3-4 |
| GCIT 2XX | Global Citizenship | 3 |
| HSCI 225 | Applied Statistics | 3 |
| HSCI 3XX | Health Sciences Electives | 6 |
| SCI Elec | BIOL-CHEM-PHYC-SCI Elective/Lab | 4 |
| General Elective | | 3 |
| Credits | | 31-32 |
| Fourth Year | | |
| PHIL 499 | Philosophies of the Good Life | 3 |
| HSCI 330 | Medical Terminology | 3 |
| PSYC 2XX | Psychology Electives | 6 |
| General Electives (consider 4-course minor) | | 18 |
| Credits | | 30 |
| Total Credits | | 122-123 |

Health Sciences (BS)

Associate Dean Academic Programs: Laura Pontiggia, PhD (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/emerging-health-professions/academic-programs/health-sciences.html>)

Program Description

- **Continuing & Professional Studies**

The BS in Health Services provides knowledge and skills for career paths in clinical and non-clinical roles. You will be prepared for roles that require critical thinking, data analysis, and leadership skills in contexts such as hospitals, clinics, insurance companies, pharmaceutical companies, research labs, or community agencies. You also will complete prerequisite coursework for entry into graduate programs in a variety of health professions.

Curriculum: 120 credits

- Continuing & Professional Studies, Accelerated Program

| Code | Title | Credits |
|--|--------------------------------|---------|
| CPS General Education Requirements | | |
| Written Communication Elective | | 3 |
| Written Communication Elective | | 3 |
| STAX 211 | Finding & Evaluating Stat Data | 3 |
| BIOL 122 | Biology I Lab | 1 |
| BIOX 122 | Biology I Lab | 1 |
| COMX 220 | Speak to Lead in Digital Age | 3 |
| PHLX 222 | Applied Professional Ethics | 3 |
| Foundation Requirements | | |
| BIOX 110 | Human Anatomy & Physiology I | 3 |
| BIOX 111 | Human Anatomy & Physiology II | 3 |
| CSSX 101 | Learning Across the Lifespan | 3 |
| BIOX 113 | Human Anatomy & Physio I Lab | 1 |
| BIOX 114 | Human Anatomy & Physio II Lab | 1 |
| CHMX 110 | General Chemistry I | 3 |
| CHMX 111 | General Chemistry Lab | 1 |
| HSCX 110 | Intro to Health Professions | 3 |
| HSCX 120 | Medical Terminology | 3 |
| Creativity & Leadership Core | | |
| CLCX 310 | Creativity Fnds & Applications | 3 |
| CLCX 330 | Project Management | 3 |
| CLCX 340 | Leading Diverse Organizations | 3 |
| CLCX 350 | Creative Leadership | 3 |
| CLCX 360 | Leadership in the Digital Age | 3 |
| Health Science Electives | | |
| Select electives from biological & physical sciences, social sciences, or health professions | | |
| Major Requirements | | |
| HSCX 201 | Human Disease and Treatment | 3 |
| HSMX 301 | Health Systems & Policy | 3 |
| HSMX 350 | Public Health and Epidemiology | 3 |
| HSMX 412 | Healthcare Qual Improvement | 3 |
| HSCX 498 | Health Sciences Capstone | 3 |
| General Electives | | 37 |

Health Sciences (BS) & Athletic Training (MS)

Contacts

Program Director: Louis N. Hunter, PT, DPT

Email: Louis.Hunter@jefferson.edu

215-503-6017

Program Director: Kelly Pagnotta, PhD, LAT, ATC

Email: Kelly.Pagnotta@jefferson.edu

215-951-2542

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/rehabilitation-sciences/departments/exercise-science/athletic-training/bs-ms-combined.html>)

Program Description

As a student in this accelerated dual degree program, you can earn both your bachelor's and master's degrees in five years. Students begin their pre-professional education in the Health Sciences where they complete college studies, health sciences, and prerequisite coursework with other health and pre-medical students on Jefferson's East Falls Campus. Students who maintain progression criteria are guaranteed to matriculate into the Athletic Training professional program.

Jefferson's academic advisors and faculty work closely with our students on course selection and academic performance to ensure that each student is on pace to transition into the professional phase of the program. The MS in Athletic Training program is designed to help meet the growing demand for professional Certified Athletic Trainers (ATC). It prepares highly motivated students with an interest in the medical field to sit for the National Athletic Trainers Association Board of Certification (BOC) examination upon graduation.

Athletic Training Graduate Program

Refer to the Jefferson College of Rehabilitation Sciences (JCRC) for more information about the graduate Athletic Training program.

Curriculum: 5 Years, 156 Credits

| Course | Title | Credits |
|----------------------------------|--|-----------|
| First Year | | |
| FYS 100 | Pathways Seminar | 1 |
| WRIT 101 | Writing Sem I: Written Comm. | 3 |
| WRIT 2XX | Writing Seminar II | 3 |
| AVIS 101 | American Visions | 3 |
| MATH 102 | Pre-Calculus | 3 |
| BIOL 112 & 112L | Core Concepts of Biology and Core Concepts of Biol Lab | 4 |
| CHEM 101 & 101L or CHEM 103/103L | General Chemistry or Chemistry I | 4 |
| HSCI 100 | Intro to Health Professions | 1 |
| HSCI 230 | Intro to Healthcare | 2 |
| PSYC 101 | Intro to Psychology | 3 |
| PSYC 213 | Developmental Psychology | 3 |
| ADIV 2XX | American Diversity | 3 |
| Credits | | 33 |
| Second Year | | |
| ETHC 2XX | Ethics | 3 |
| GDIV 2XX | Global Diversity | 3 |
| GCIT 2XX | Global Citizenship | 3 |
| STAT 220 | Stats for the Behavioral Sci | 3 |
| PSYC 201 | Abnormal Psychology | 3 |
| HSCI 304 | Nutrition and Health | 3 |
| HSCI 305 | Concepts in Fitness & Wellnes | 3 |
| BIOL 201 & 201L | Human Anatomy and Physiology I and Human Anat & Physiology I Lab | 4 |
| BIOL 202 & 202L | Human Anatomy & Physiology II and Human Anat & Physiology II Lab | 4 |
| Credits | | 29 |
| Third Year | | |
| PHYS 111 | Course PHYS 111 Not Found | 4 |
| CGIS 300 | Contemporary Global Issues | 3 |
| ISEM 3XX | Integrative Seminar | 3 |
| PHIL 499 | Philosophies of the Good Life | 3 |
| HSCI 3XX | HSCI Elective | 3 |

| Course | Title | Credits |
|----------------------|--|------------|
| EXSC 306 | Intro to Exercise Physiology | 3 |
| EXSC 307 | Intro to Kinesiology | 3 |
| HSCI 330 | Medical Terminology | 3 |
| PSYC 322 | Research Method Behavior Sci | 3 |
| General Elective | | 3 |
| Credits | | 31 |
| Fourth Year | | |
| ATP 600 | Emergency Care | 4 |
| ATP 602 | Scientific Inquiry & Writing | 1 |
| ATP 605 | Fundamentals of Athl Training | 4 |
| ATP 610 | Basics of Rehabilitation | 3 |
| ATP 620 | Practicum I | 3 |
| ATP 615 | Functional Human Anatomy | 3 |
| ATP 625 | Prev, Eval & Treat of Ath Inj I (U. Extremity) | 4 |
| ATP 635 | Human Phys: Exer, Nutri & Perf | 3 |
| ATP 630 | Therap Modlities for Ath Train | 3 |
| ATP 645 | Motor Contrl & Humn Move Train | 3 |
| ATP 640 | Practicum II Athl Injuries I | 3 |
| Credits | | 34 |
| Fifth Year | | |
| ATP 660 | Specicity Practicm in Ath Train | 3 |
| ATP 665 | Prev,Eval,Treat ofInj II-LowEx (L. Extremity) | 4 |
| ATP 685 | Org & Admin in Ath Training | 2 |
| ATP 661 | Practicum III Ath Injuries I | 3 |
| ATP 690 | Gen Med Conditions&Pharm in AT | 3 |
| ATP 691 | Research-Collaborative Proj I | 1 |
| ATP 670 | Prev,Eval,Treat of Inj-III-Spn (Spine and advanced techniques) | 4 |
| ATP 695 | Psych Aspects of Injury& Rehab | 3 |
| ATP 696 | Special Topics in Ath Training | 2 |
| ATP 662 | Practicum IV | 3 |
| ATP 692 | Research-Collaborative Proj II | 1 |
| Credits | | 29 |
| Total Credits | | 156 |

Health Sciences (BS) & Community & Trauma Counseling (MS)

Contacts

Program Director: Louis N. Hunter, PT, DPT

Email: Louis.Hunter@jefferson.edu
215-503-6017

Program Director: Nicole G. Johnson, Ph.D., LPC, ACS, CAADC, CCDP-D, BC-TMH

Email: Nicole.G.Johnson@jefferson.edu
215-951-2553

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/departments-programs/counseling-behavioral-health/programs/community-trauma-counseling/bs-ms-combined-degrees.html>)

Program Description

Designed for students interested in becoming professional counselors who want to make a difference in the lives of trauma survivors. Accelerated dual degree program allows students to seamlessly

complete undergraduate and graduate degrees in less time than would be required to complete both separately.

- See each program for Learning Outcomes.

Learning Goals/Outcomes (Health Sciences)

- Apply scientific and psychological concepts to make informed clinical decisions.
- Explain factors that can influence health and well-being.
- Apply principles of professionalism, respect, and ethical behavior (in class and in the field).
- Demonstrate an understanding of a range of health professions' scopes of practice and responsibilities to make informed career decisions.

Curriculum: 5 Years, 165 Credits

- 120 credits BS; 48 credits MS

| Course | Title | Credits |
|--------------------|--|--------------|
| First Year | | |
| FYS 100 | Pathways Seminar | 1 |
| WRIT 101 | Writing Sem I: Written Comm. | 3 |
| AMST 114 | Course AMST 114 Not Found | 3 |
| WRIT 201 | Writing Seminar II: Multi Comm | 3 |
| MATH 1XX | Pre-Calculus | 3 |
| BIOL 112 & 112L | Core Concepts of Biology and Core Concepts of Biol Lab | 4 |
| BIOL XXX | Science Elective | 3-4 |
| HSCI 100 | Intro to Health Professions | 1 |
| PSYC 101 | Intro to Psychology | 3 |
| PSYC 103 | Physiological Psychology | 3 |
| PSYC 213 | Developmental Psychology | 3 |
| General Elective | | 3 |
| Credits | | 33-34 |
| Second Year | | |
| ETHC 2XX | Ethics | 3 |
| GDIV 2XX | Global Diversity | 3 |
| ADIV 2XX | American Diversity | 3 |
| GCIT 2XX | Global Citizenship | 3 |
| PSYC 201 | Abnormal Psychology | 3 |
| PSYC 226 | Psychology of Trauma | 3 |
| PSYC 222 | Counseling Psychology | 3 |
| PSYC 220 | Clinical Psychology | 3 |
| BIOL 201 & 201L | Human Anatomy and Physiology I and Human Anat & Physiology I Lab | 4 |
| BIOL 202 & 202L | Human Anatomy & Physiology II and Human Anat & Physiology II Lab | 4 |
| HSCI 230 | Intro to Healthcare | 2 |
| HSCI 3XX | Health Science Elective | 3 |
| Credits | | 37 |
| Third Year | | |
| CGIS 300 | Contemporary Global Issues | 3 |
| ISEM 3XX | Integrative Seminar | 3 |
| PHIL 499 | Philosophies of the Good Life | 3 |
| STAT 220 | Stats for the Behavioral Sci | 3 |
| HSCI 330 | Medical Terminology | 3 |
| General Electives | | 9 |
| HSCI XXX | Writing Intensive Elective | 3 |
| PSYC 2XX | Psychology Elective | 3 |
| HSCI 3XX | Health Sciences Electives | 6 |

| Course | Title | Credits |
|------------------------------|----------------------|----------------|
| General Elective | | 3 |
| Credits | | 39 |
| Fourth Year | | |
| Fall | | |
| CTC XXX | Professional Courses | 12 |
| General Elective | | 3 |
| BS Awarded (December) | | |
| Credits | | 15 |
| Winter | | |
| Refer to CTC MS Program | | |
| Credits | | 0 |
| Spring | | |
| Refer to CTC MS Program | | |
| Credits | | 0 |
| Fifth Year | | |
| Refer to CTC MS Program | | |
| Credits | | 0 |
| Total Credits | | 124-125 |

Health Sciences (BS) & Community and Trauma Counseling (MS)

Contacts

Program Director: Louis N. Hunter, PT, DPT

Email: Louis.Hunter@jefferson.edu
215-503-6017

Program Director: Nicole G. Johnson, Ph.D., LPC, ACS, CAADC, CCDP-D, BC-TMH

Email: Nicole.G.Johnson@jefferson.edu
215-951-2553

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/departments-programs/counseling-behavioral-health/programs/community-trauma-counseling/bs-ms-combined-degrees.html>)

Program Description

Designed for students interested in becoming professional counselors who want to make a difference in the lives of trauma survivors.

- Accelerated dual degree program allows students to seamlessly complete undergraduate and graduate degrees in less time than would be required to complete both separately.
- See each program for Learning Outcomes

Learning Goals/Outcomes (Health Sciences)

- Apply scientific and psychological concepts to make informed clinical decisions.
- Explain factors that can influence health and well-being.
- Apply principles of professionalism, respect, and ethical behavior (in class and in the field).
- Demonstrate an understanding of a range of health professions' scopes of practice and responsibilities to make informed career decisions.

Curriculum: 5 Years, 165 Credits

- BS:120 credits.; MS: 48 credits

| Course | Title | Credits |
|-------------------------|--|--------------|
| First Year | | |
| FYS 100 | Pathways Seminar | 1 |
| WRIT 101 | Writing Sem I: Written Comm. | 3 |
| WRIT 201 | Writing Seminar II: Multi Comm | 3 |
| AVIS 101 | American Visions | 3 |
| MATH 1XX | Pre-Calculus | 3 |
| BIOL 112 & 112L | Core Concepts of Biology and Core Concepts of Biol Lab | 4 |
| Science Elective | | 3-4 |
| HSCI 100 | Intro to Health Professions | 1 |
| PSYC 101 | Intro to Psychology | 3 |
| PSYC 103 | Physiological Psychology | 3 |
| PSYC 213 | Developmental Psychology | 3 |
| Free Elective | | 3 |
| Credits | | 33-34 |
| Second Year | | |
| ETHC 2XX | Ethics | 3 |
| GDIV 2xx | Global Diversity | 3 |
| ADIV-2XX | American Diversity | 3 |
| GCIT 2XX | Global Citizenship | 3 |
| PSYC 201 | Abnormal Psychology | 3 |
| PSYC 226 | Psychology of Trauma | 3 |
| PSYC 222 | Counseling Psychology | 3 |
| PSYC 220 | Clinical Psychology | 3 |
| BIOL 201 & 201L | Human Anatomy and Physiology I and Human Anat & Physiology I Lab | 4 |
| BIOL 202 & 202L | Human Anatomy & Physiology II and Human Anat & Physiology II Lab | 4 |
| HSCI 230 | Intro to Healthcare | 2 |
| Credits | | 34 |
| Third Year | | |
| CGIS 300 | Contemporary Global Issues | 3 |
| ISEM 3XX | Integrative Seminar | 3 |
| PHIL 499 | Philosophies of the Good Life | 3 |
| STAT 202 | Applied Business Statistics | 3 |
| HSCI 330 | Medical Terminology | 3 |
| Science Electives | | 6-8 |
| HSCI XXX | Writing Intensive Elective | 3 |
| PSYC 2XX | Psychology Elective | 6-8 |
| HSCI 3XX | Health Sciences Elective | 3 |
| Free Elective | | 3 |
| Credits | | 36-40 |
| Fourth Year | | |
| Fall | | |
| CTC XXX | Professional Courses | 1-2 |
| Free Elective | | 3 |
| Credits | | 4-5 |
| Winter | | |
| Refer to CTC MS Program | | |
| Credits | | 0 |
| Spring | | |
| Refer to CTC MS Program | | |
| Credits | | 0 |

| Course | Title | Credits |
|-------------------------|-------|----------------|
| Fifth Year | | |
| Refer to CTC MS Program | | |
| Credits | | 0 |
| Total Credits | | 107-113 |

Health Sciences (BS) & Nutrition & Dietetic Practice (MS)

Contacts

Program Director: Louis N. Hunter, PT, DPT

Email: Louis.Hunter@jefferson.edu
215-503-6017

Program Director: Kati Fosselius, MS, RDN, LDN

Email: Kati.Fosselius@Jefferson.edu
215-503-9824

Campus: Center City, East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/departments-programs/nutritional-sciences/3-2-pathway.html>)

Program Description

As a student in this accelerated dual degree program, you can earn both your bachelor's and master's degrees in five years. Students begin their pre-professional education in the Health Sciences where they complete college studies, health sciences, and prerequisite coursework with other health and pre-medical students on Jefferson's East Falls Campus. Students who maintain progression criteria are guaranteed to matriculate into the Nutrition professional program.

Jefferson's academic advisors and faculty work closely with our students on course selection and academic performance to ensure that each student is on pace to transition into the professional phase of the program. The MS in Nutrition program is designed to help meet the growing demand for professional Registered Dietitian Nutritionists (RDNs). It prepares highly motivated students with an interest in the medical field to sit for the Commission on Dietetic Registration national Registration Examination for Dietitians examination upon graduation.

Students matriculating into the professional phase of study in the Nutrition and Dietetic Practice program will complete 24 graduate credits during Year 4 fall and spring semesters. These credits are allocated to the undergraduate BS degree in Health Sciences, with graduation eligibility in December. year 4 summer and year 5 courses comprise the MS degree.

Learning Goals/Outcomes (Health Sciences)

- Apply scientific and psychological concepts to make informed clinical decisions.
- Explain factors that can influence health and well-being.
- Apply principles of professionalism, respect, and ethical behavior (in class and in the field).
- Demonstrate an understanding of a range of health professions' scopes of practice and responsibilities to make informed career decision.

Curriculum: 5 Years, 150 Credits

- (120 BS; 30 MS)

| Course | Title | Credits |
|-----------------------------------|--|----------------|
| First Year | | |
| FYS 100 | Pathways Seminar | 1 |
| WRIT 101 | Writing Sem I: Written Comm. | 3 |
| WRIT 201 | Writing Seminar II: Multi Comm | 3 |
| AVIS 101 | American Visions | 3 |
| MATH 1XX Pre-Calculus (or higher) | | 3 |
| BIOL 112 | Core Concepts of Biology | 3 |
| CHEM 103 | Chemistry I | 3 |
| CHEM 104 | Chemistry II | 3 |
| HSCI 100 | Intro to Health Professions | 1 |
| PSYC 101 | Intro to Psychology | 3 |
| General Elective | | 3 |
| Credits | | 29 |
| Second Year | | |
| ETHC 2XX | Ethics | 3 |
| GDIV 2XX | Global Diversity | 3 |
| ADIV 2XX | American Diversity | 3 |
| GCIT 2XX | Global Citizenship | 3 |
| HSCI 225 | Applied Statistics | 3 |
| HSCI 230 | Intro to Healthcare | 2 |
| CHEM 214 | Bioorganic Chemistry | 3 |
| BIOL 201 & 201L | Human Anatomy and Physiology I and Human Anat & Physiology I Lab | 4 |
| BIOL 202 & 202L | Human Anatomy & Physiology II and Human Anat & Physiology II Lab | 4 |
| BIOL 221 & 221L | Microbiology and Microbiology Lab | 4 |
| Credits | | 32 |
| Third Year | | |
| CGIS 300 | Contemporary Global Issues | 3 |
| ISEM 3XX | Integrative Seminar | 3 |
| PHIL 499 | Philosophies of the Good Life | 3 |
| HSCI 304 | Nutrition and Health | 3 |
| HSCI 3XX | Health Sciences Elective | 3 |
| CHEM 201 & 201L | Organic Chemistry I and Organic Chemistry I Lab | 4 |
| PSYC 2XX | Psychology Elective | 3 |
| General Electives | | 9 |
| General Elective (if needed) | | 0-3 |
| Credits | | 31-34 |
| Fourth Year | | |
| RDN 571 | Medical Nutrition Therapy I | 3 |
| RDN 531 | Integ Nutr Acr the Life Cycle | 3 |
| RDN 511 | Nutritional Biochem & Physio | 3 |
| RDN 535 | Food Science & Safety | 3 |
| RDN 571 | Medical Nutrition Therapy I | 3 |
| RDN 661 | Management in Nutrition | 3 |
| SCJU 631 | Soc Jus Sem: Food,Weight&Hlth | 1 |
| RDN 612 | Nutr Comm, Edu, & Leadership | 3 |
| RDN 712 | SEL-Nutr Comm, Edu, & Lead Exp | 1 |
| RDN 762 | SEL-Food Servic & Culinary Exp | 1 |
| Credits | | 24 |
| Total Credits | | 116-119 |

Note: Year 5 (refer to Nutrition & Dietetic MS Program)

Nutrition & Dietetic Graduate Curriculum

- Refer to the Jefferson College of Health Professions (JCHP) for graduate Nutrition & Dietetic curriculum.

Health Sciences (BS) & Occupational Therapy (OTD) Contacts

Program Director: Louis N. Hunter, PT, DPT

Email: Louis.Hunter@jefferson.edu

215-503-6017

Program Director: Stephen B. Kern, PhD, OTR/L, FAOTA

Email: Stephen.Kern@jefferson.edu

215-503-8013

Program Description

Occupational Therapy is a healthcare profession that helps people to maximize their functional independence after illness or injury, or, develop the social and emotional skills necessary to participate fully in everyday life. Occupational therapists assist children with motor, social and learning needs to be successful in school activities and family life. They help adults to develop strategies to address the physical and emotional changes associated with rehabilitation or long-term health needs. Therapy frequently involves assisting individuals to relearn old skills, develop new ways of doing, or adapt the environment to enable them to live satisfying and independent lives.

The accelerated BS in Health Sciences/Doctorate in Occupational Therapy (OTD) program is designed for students who know early on that they want to become occupational therapists. This dual degree program allows students to seamlessly complete undergraduate and graduate degrees in less time than would be required to complete both degrees separately. Undergraduate courses and extra-curricular experiences provide students with a foundation to develop the knowledge, values and interpersonal skills needed for success as an occupational therapist.

During the first three years of undergraduate coursework, students complete major requirements for the bachelor's degree, including college studies and occupational therapy program prerequisites. Students who meet the graduate occupational therapy program progression criteria can enroll in first year Occupational Therapy graduate coursework during Year 4 of undergraduate studies. At the end of Year 4, students are awarded the BS in Health Sciences, and are eligible to participate in the May commencement ceremony. Upon completion of graduate occupational therapy program requirements in Year 6, the doctoral degree in Occupational Therapy will be awarded.

The accelerated BS/OTD is a cohort program that requires uninterrupted enrollment. Once accepted, students may not accelerate (i.e. take additional courses during summer semesters to shorten program length) or decelerate (i.e. take a reduced course load in a semester and add another year to undergraduate study).

For more information about the Occupational Therapy Doctorate (OTD), refer to the College of Rehabilitation Sciences section of the Catalog.

•

Curriculum: 6 Years, 205 Credits (Minimum 120 Cr. BS)

| Code | Title | Credits |
|-------------------------------------|--|----------------|
| Hallmark Courses | | |
| FYS 100 | Pathways Seminar | 1 |
| WRIT 101 | Writing Sem I: Written Comm. | 3 |
| WRIT 2XX | Multimedia Comm | 3 |
| BIOL 112 & 112L | Core Concepts of Biology and Core Concepts of Biol Lab | 4 |
| MATH 102 | Pre-Calculus (or higher) | 3-4 |
| AMST 114 | Course AMST 114 Not Found | 3 |
| GDIV 2XX | Global Diversity | 3 |
| GCIT 2XX | Global Citizenship | 3 |
| ETHC 2XX | Ethical Reflection | 3 |
| ADIV 2XX | American Diversity | 3 |
| ISEM 3XX | Integrative Seminar | 3 |
| CGIS 300 | Contemporary Global Issues | 3 |
| PHIL 499 | Philosophies of the Good Life | 4 |
| Health Sciences Core Courses | | |
| HSCO 100 | Course HSCO 100 Not Found | 3 |
| HSCI 230 | Intro to Healthcare | 3 |
| HSCI 330 | Medical Terminology | 3 |
| HSCI 225/STAT 220 | Applied Statistics | 3 |
| HSCI 3XX | Health Sci Designated Elective | 3 |
| HSCI 3XX | Designated Elective | 12-13 |
| HSCI/BIOL | Writing Intensive Designated Elective | 3-4 |
| Science Courses | | |
| BIOL 201 & 201L | Human Anatomy and Physiology I and Human Anat & Physiology I Lab | 4 |
| BIOL 202 & 202L | Human Anatomy & Physiology II and Human Anat & Physiology II Lab | 4 |
| PHYS 111 | Course PHYS 111 Not Found | 4 |
| Psychology Courses | | |
| PSYC 101 | Intro to Psychology | 3 |
| PSYC 201 | Abnormal Psychology | 3 |
| PSYC 213 | Developmental Psychology | 3 |
| Year 4 | | |
| OT Doctoral Courses towards BS | | 37 |
| Year 5 & 6 | | |
| OT Doctoral Courses toward OTD | | 79 |
| Total Credits | | 206-209 |

*Designated Electives: HSCI, PSYC, BIOL, EXSC courses

Occupational Therapy Graduate Curriculum

- Refer to the Jefferson College of Rehabilitation Sciences (JCRS) for graduate Occupational Therapy curriculum.

Health Sciences (BS) & Occupational Therapy (OTD)

Contacts

Program Director: Stephen Kern, PhD, OTR/L, FAOTA

Email: Stephen.Kern@jefferson.edu

Program Description

Occupational Therapy is a healthcare profession that helps people to maximize their functional independence after illness or injury, or, develop the social and emotional skills necessary to participate fully in everyday life. Occupational therapists assist children with motor, social and learning needs to be successful in school activities and family life. They help adults to develop strategies to address the physical and emotional changes associated with rehabilitation or long-term health needs. Therapy frequently involves assisting individuals to relearn old skills, develop new ways of doing, or adapt the environment to enable them to live satisfying and independent lives.

The accelerated BS in Health Sciences/Doctorate in Occupational Therapy (OTD) program is designed for students who know early on that they want to become occupational therapists. This dual degree program allows students to seamlessly complete undergraduate and graduate degrees in less time than would be required to complete both degrees separately. Undergraduate courses and extra-curricular experiences provide students with a foundation to develop the knowledge, values and interpersonal skills needed for success as an occupational therapist.

During the first three years of undergraduate coursework, students complete major requirements for the bachelor's degree, including college studies and occupational therapy program prerequisites. Students who meet the graduate occupational therapy program progression criteria can enroll in first year Occupational Therapy graduate coursework during Year 4 of undergraduate studies. At the end of Year 4, students are awarded the BS in Health Sciences, and are eligible to participate in the May commencement ceremony. Upon completion of graduate occupational therapy program requirements in Year 6, the doctoral degree in Occupational Therapy will be awarded.

The accelerated BS/OTD is a cohort program that requires uninterrupted enrollment. Once accepted, students may not accelerate (i.e. take additional courses during summer semesters to shorten program length) or decelerate (i.e. take a reduced course load in a semester and add another year to undergraduate study).

For more information about the Occupational Therapy Doctorate (OTD), refer to the College of Rehabilitation Sciences section of the Catalog.

- Curriculum: 6 years, 205 credits (minimum 120 cr. BS)

| Code | Title | Credits |
|------------------|--------------------------------|---------|
| Hallmarks | | |
| FYS 100 | Pathways Seminar | 1 |
| WRIT 101 | Writing Sem I: Written Comm. | 3 |
| WRIT 202 | Writing Seminar II: Multi Comm | 4 |
| BIOL 103 | Biology I | 3 |
| BIOL 103L | Biology I Lab | 1 |
| GDIV 2XX | Global Diversity Placeholder | 3 |
| GCIT 2XX | Global Citizenship Placeholder | 3 |

| Code | Title | Credits |
|-------------------------|----------------------------------|---------|
| ETHC 2XX | Ethics Course Placeholder | 3 |
| ADIV 2XX | American Diversity Placeholder | 3 |
| ISEM 3XX | Integrative Sem Placeholder | 3 |
| CGIS 300 | Contemporary Global Issues | 3 |
| PHIL 499 | Philosophies of the Good Life | 3 |
| Health Science Core | | |
| HSCI 100 | Intro to Health Professions | 1 |
| HSCI 230 | Intro to Healthcare | 2 |
| HSCI 330 | Medical Terminology | 3 |
| STAT 220 | Stats for the Behavioral Sci | 3 |
| HSCI 3XX | Health Sci Elective | 3 |
| HSCI 3XX | Health Sci Elective | 12 |
| WRIT INTENXIVE ELECTIVE | | 3 |
| SCIENCE COURSES | | |
| BIOL 110 | Human Anatomy & Physiology I | 3 |
| BIOL 110L | Course BIOL 110L Not Found | 0 |
| BIOL 111 | Human Anatomy & Physiology II | 3 |
| BIOL 111L | Course BIOL 111L Not Found | 1 |
| PHYC 111 | Algebra-based PHYC I-Mech&Thermo | 4 |
| PSYCHOLOGY COURSES | | |
| PSYC 101 | Intro to Psychology | 3 |
| PSYC 201 | Abnormal Psychology | 3 |
| PSYC 213 | Developmental Psychology | 3 |
| YEAR 4 OTD COURSES | | 37 |
| YEAR 5 & 6 OTD COURSES | | 79 |

Health Sciences (BS) & Physician Assistant (PA)

Contacts

Program Director: Louis N. Hunter, PT, DPT

Email: Louis.Hunter@jefferson.edu

215-503-6017

Program Director: Kirby L. Wycoff, PsyD, EdM, MPH, NCSF

Email: Kirby.Wycoff@jefferson.edu

215-951-0253

Campus: East Falls, Voorhees

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/departments-programs/health-sciences/physician-assistant-studies/health-sciences-bs-physician-assistant-ms.html>)

Program Description

The Health Sciences to Physician Assistant program is designed for students who have determined they want to pursue a physician assistant career early. Students in this five-year accelerated dual degree program are assured a seat in the graduate MS Physician Assistant Studies program, provided they meet progression criteria set for their enrollment term.

Prior to enrolling in the professional phase of the program, students must complete an online application through CASPA (Centralized

Application Service for Physician Assistants) by the stated deadline of the year prior to their desired master's enrollment date. All applicants who apply to CASPA, have a CASPA-calculated cumulative GPA and science GPA of 3.25, and at least 200 documented direct patient contact hours will receive an admissions interview.

Students matriculating into the professional phase of study in the Physician Assistant program will complete 20-22 graduate PA credits during Year 4 fall. These credits are allocated to the undergraduate BS degree in Health Sciences, with graduation eligibility in December. Year 4 spring and Year 5 courses comprise the MS degree.

The accelerated BS/MS PA is a cohort program that requires uninterrupted enrollment. Once accepted, students may not accelerate (i.e. take additional courses during summer semesters to shorten program length) or decelerate (i.e. take a reduced course load in a semester and add another year to undergraduate study).

The graduate Physician Assistant Program requires a continuous 25 months of study and includes Didactic and Clinical portions. The Didactic year consists of three semesters of medically related classroom and laboratory work, integrating some clinical experiences. Students must successfully complete all Didactic courses before entering the Clinical year. The Clinical year consists of extensive clinical experience through nine 5-week rotations at a variety of medical facilities, including hospitals and medical offices.

Curriculum: 5 Years, 217 Credits

| Course | Title | Credits |
|--------------------|--|--------------|
| First Year | | |
| FYS 100 | Pathways Seminar | 1 |
| WRIT 101 | Writing Sem I: Written Comm. | 3 |
| AVIS 101 | American Visions | 3 |
| WRIT 2XX | Writing Seminar II | 3-4 |
| MATH 1XX | Pre-Calculus/Intro Calculus | 3 |
| BIOL 103 & 103L | Biology I and Biology I Lab | 4 |
| BIOL 104 & 104L | Biology II and Biology II Lab | 4 |
| CHEM 103 & 103L | Chemistry I and Chemistry I Lab | 4 |
| CHEM 104 & 104L | Chemistry II and Chemistry II Lab | 4 |
| PSYC 101 | Intro to Psychology | 3 |
| HSCI 100 | Intro to Health Professions | 1 |
| Credits | | 33-34 |
| Second Year | | |
| ETHC 2XX | Ethics | 3 |
| GDIV 2XX | Global Diversity | 3 |
| ADIV 2XX | American Diversity | 3 |
| GCIT 2XX | Global Citizenship | 3 |
| PSYC 201 | Abnormal Psychology | 3 |
| HSCI 230 | Intro to Healthcare | 2 |
| CHEM 214 | Bioorganic Chemistry | 3 |
| BIOL 221 & 221L | Microbiology and Microbiology Lab | 4 |
| BIOL 201 & 201L | Human Anatomy and Physiology I and Human Anat & Physiology I Lab | 4 |
| BIOL 202 & 202L | Human Anatomy & Physiology II and Human Anat & Physiology II Lab | 4 |
| PSYC 213 | Developmental Psychology | 3 |
| Credits | | 35 |

| Course | Title | Credits |
|---|---|--------------------|
| Third Year | | |
| CGIS 300 | Contemporary Global Issues | 3 |
| ISEM 3XX | Integrative Seminar | 3 |
| PHIL 499 | Philosophies of the Good Life | 3 |
| HSCI 225 | Applied Statistics | 3 |
| HSCI 3XX | Health Sciences Elective | 3 |
| BIOL XXX | Biology Elective | 3 |
| HSCI 320 | Clinical Interactions | 3 |
| HSCI 330 | Medical Terminology | 3 |
| BIOL 207 & 207L | Principles of Genetics and Principles of Genetics Lab | 3 |
| General Elective | | 6 |
| Credits | | 33 |
| Fourth Year | | |
| Summer & Fall – BS Awarded in December | | |
| PAST 407A | Advanced Anatomy (A) | 2 |
| PAST 407B | Advanced Anatomy (B) | 3 |
| PAST 22-Medicine I | | 7 |
| PAST 524 | Course PAST 524 Not Found | 5 |
| PAST 526 | Course PAST 526 Not Found | 5 |
| PAST 628 | Medicine II | 3 |
| PAST 627 | Patient Care & Clin Reasoning II | 5 |
| PAST 626 | Principles of PA Practice II | 4 |
| PAST 615 | Diagnostic Medicine | 2.5 |
| Credits | | 36.5 |
| Spring | | |
| Credits toward MS | | |
| PAST 530 | Clinical Medicine I | 8 |
| PAST 612 | Course PAST 612 Not Found | 2.5 |
| PAST 550 | Pharm & Clinic Therapeutics I | 4 |
| PAST 610 | Emergency Medicine | 3 |
| PAST 615 | Diagnostic Medicine | 2 |
| PAST 605 | Clin Correlations of Pub Hlth | 1 |
| Credits | | 20.5 |
| Fifth Year | | |
| Summer | | |
| PAST 621 | Clinical Disciplines Overview (Surgery, Pediatrics, Women's Health) | 6 |
| PAST 622 | Pharmacotherapeutics Seminar | 1 |
| PAST 603 | Advanced Physical Assessment | 0.5 |
| PAST 623 | Adv Diagnostic Medicine Semnr | 1 |
| Transition to Clinical Year | | 6 |
| Clinical Rotations: 5 weeks each | | |
| Internal Medicine | | 6 |
| Primary Care I | | 6 |
| Primary Care II | | 6 |
| Pediatrics | | 6 |
| Women's Health | | 6 |
| Emergency Medicine | | 6 |
| Psychiatry/Mental Health | | 6 |
| Surgery | | 6 |
| General Elective | | 6 |
| PAST 772 | Masters Comprehensive Exp | 2 |
| Credits | | 70.5 |
| Total Credits | | 228.5-229.5 |

Health Sciences (DHSc) Contacts

Program Director: Kirby Wycoff, PsyD, EdM, MPH

Email: kirby.wycoff@jefferson.edu
215-951-0253

Campus: Center City
Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/departments-programs/health-science-clinical-practice/degrees-programs/graduate/doctor-health-science.html>)

Program Description

The JCHP Doctor of Health Science (DHSc) Program is for professionals seeking advancement in healthcare practice, education and policy. The fully online program will accommodate students who are working healthcare professionals. All students will experience in-depth, individualized, multi-disciplinary training in a comprehensive range of healthcare leadership, teaching and learning, and research skills that support their development as leaders in a burgeoning health professions career landscape.

Interdisciplinary health professions education and practice is the foundation of the JCHP DHSc program. Accordingly, the curriculum is comprised of courses drawn from five colleges at Jefferson, ensuring that the program is relevant to professionals that span the full gamut of healthcare. This extraordinary breadth of coverage provides JCHP DHSc students an ideal opportunity for interprofessional study and practice, as well as robust support for a broad range of healthcare research topics.

Learning Goals/Outcomes

The DHSc program will enable students to deepen their knowledge in selected domains of clinical leadership and health professions teaching and learning, as well as leverage that knowledge in evidence-based practice. Didactic courses provide deep immersion in a broad array of emerging areas in the health professions. Doctoral project courses deliver experiential learning in defining the leading edge of an area of health care, investigating the basis of new challenges, and developing potential solutions. This combination of knowledge and skill will prepare DHSc graduates to become valuable problem solvers wherever their careers may lead.

Curriculum: 43 Credits

| Code | Title | Credits |
|--|--------------------------------|---------|
| Core Courses: Required | | |
| HPS 600 | Fundamentals Applied Biostats | 3 |
| HPS 601 | Appl Hlth Rsrch Design&Methods | 3 |
| HPS 602 | Responsible Conduct Research | 1 |
| HPS 603 | Health Systems Sciences | 2 |
| HPS 604 | Scholarly Writing Foundations | 2 |
| Doctoral Project Courses: Required | | |
| HPS 701 | Doctoral Project Foundation | 2 |
| HPS 702 | Doctoral Project Strategy | 2 |
| HPS 703 | Doctoral Project Execution | 2 |
| HPS 704 | Course HPS 704 Not Found | |
| Clinical Leadership Track Courses: 12 credits | | |
| HPS 620 | Interprof Edu Collab Prac Hlth | 3 |
| LDSP 640 | Conflict & Negotiation in Orgs | 3 |
| MIDW 712 | Introduction to Health Policy | 3 |
| MIDW 805 | Organizational Change | 3 |
| NU 704 | Phil, Found, Meth for E-B Prac | 3 |

| Code | Title | Credits |
|---|--------------------------------|-----------|
| NU 707 | Leadership & Inter-Prof Collab | 3 |
| Health Professions Teaching & Learning Track Courses: 12 credits | | |
| GC 749 | The Science of Learning II | 2 |
| GC 751 | Instructional Tech & Learning | 2 |
| GC 752 | Curriculum & Instructional Des | 2 |
| GC 753 | Program Assessment & Eval | 2 |
| HPE 520 | Sim for Health Prof Educ | 3 |
| Total Credits | | 46 |

- Students in the DHSc program will select either the Clinical Leadership Track or the Health Professions Teaching and Learning Track. Students must take 12 credits of course work in their selected track. Dual-degree students are taking courses in the Physician Assistant Leadership track, which includes courses from both tracks.

Elective Courses: 12 credits not previously taken

| Code | Title | Credits |
|----------|---------------------------------|---------|
| AHE 504 | Economic Modeling I | 3 |
| BT 525 | Product Development&Management | 3 |
| CSO 521 | Cannabis & Public Health | 3 |
| DIGH 500 | Telehealth & Connected Care | 3 |
| DIGH 502 | Bus&Lgl Tools for Dig Hlth Ent | 3 |
| EDM 624 | Org Risk and Crisis Mgmt | 3 |
| EDM 625 | Bus Continuity-Plan for Crisis | 3 |
| EDM 626 | Org. Recovery Prep and Plan | 3 |
| GC 520 | Cultural Humility in Life Sci | 2 |
| GC 600 | Managerial and Teamwork Skills | 3 |
| GC 746 | Princ Onl Course Des & Pedag I | 2 |
| GC 748 | Learner Centered Education | 2 |
| GC 749 | The Science of Learning II | 2 |
| HPL 504 | Health Law & Regulatory Issues | 3 |
| IN 500 | Foundations in Intgr Nutrition | 3 |
| JCRS 730 | Intro to Life Care Planning | 3 |
| JCRS 760 | Introduction and Development | 3 |
| MBM 500 | Foundations in Mind-Body Med | 3 |
| OT 632 | Intro Critic Disability Studies | 3 |
| OT 784 | Teaching in the Digital Age | 3 |
| OT 785 | Advanced Curriculum Developmnt | 3 |
| OT 786 | Health Literacy | 3 |
| OT 797 | Cul Humil for Transf Hlth Care | 3 |
| PBH 605 | AdvStatMethodsforDataAnalysis | 3 |

Health Sciences: Pre-Medical Imaging/Radiation Sciences (BS)

Contacts

Program Director: Louis N. Hunter, PT, DPT, Pre-professional Health Sciences

Email: Louis.Hunter@jefferson.edu
215-503-6017

Campus: East Falls, Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/departments-programs/health-sciences/pre-medical-imaging-radiation-sciences.html>)

Program Description

As a student in this program, you will complete foundation and pre-professional coursework with other pre-medical and health students on Jefferson's East Falls Campus. During the second year, students will begin the process of working with faculty to select concentrations in the radiologic sciences. Students who maintain progression criteria are guaranteed to matriculate into the professional phase, delivered on the Center City campus. Jefferson's academic advisors and faculty work closely with our students on course selection and academic performance to ensure that each student is on pace to transition into the professional phase of the program.

Program Highlights

In our stimulating and supportive environment, you will build a strong foundation in sciences and humanities, preparing you for success in upper-division courses in Medical Imaging and Radiation Sciences.

Preprofessional Curriculum: 50-60 Credits

- Years 1 & 2

| Course | Title | Credits |
|----------------------|---|--------------|
| First Year | | |
| FYS 100 | Pathways Seminar | 1 |
| AVIS 101 | American Visions | 3 |
| WRIT 101 | Writing Sem I: Written Comm. | 3 |
| WRIT 2XX | Multimedia Communication | 3-4 |
| MATH 102 | Pre-Calculus (Intro Calc) | 3-4 |
| BIOL 112 & 112L | Core Concepts of Biology and Core Concepts of Biol Lab | 4 |
| HSCI 100 | Intro to Health Professions | 1 |
| HSCI 230 | Intro to Healthcare | 2 |
| CHEM 103 & 103L | Chemistry I and Chemistry I Lab ¹ | 4 |
| PSYC 101 | Intro to Psychology | 3 |
| Credits | | 27-29 |
| Second Year | | |
| ADIV/GDIV/GCIT | Diversity/Citizenship | 3 |
| ADIV/GDIV/GCIT | Diversity/Citizenship | 3 |
| HSCI 225 | Applied Statistics | 3 |
| General Elective | | 1-3 |
| HSCI 330 | Medical Terminology | 3 |
| BIOL 201 & 201L | Human Anatomy and Physiology I and Human Anat & Physiology I Lab ¹ | 4 |
| BIOL 202 & 202L | Human Anatomy & Physiology II and Human Anat & Physiology II Lab ¹ | 4 |
| PHYC 111 | Algebra-base PHYC I-Mach&Thermo ¹ | 4 |
| PHYC 112 | Algebra-Based PHYS II-Electrici ¹ | 4 |
| Credits | | 29-31 |
| Total Credits | | 56-60 |

¹ Science prerequisites

- All grades must be C or higher; AP credit accepted for non-science courses only

- Matriculation into professional program requires recommended minimum 3.0 and minimum 3.0 science GPA

Professional Curriculum

Students study two concentrations, one each in Years 3 and 4. Each concentration is 12-months long comprised of both didactic and clinical hours. Students select one of the concentrations listed below for Year 3. Refer to Medical Imaging & Radiation Sciences section for upper-division curriculum information.

- Nuclear Medicine Radiography
- Magnetic Resonance Imaging
- Vascular Sonography
- Abdomen-Extended & OB/GYN (Ultrasound)
- Cardiac Sonography

Health Sciences: Pre-Medical Lab Sci/Biotechnology (BS)

Contacts

Program Director: Louis Hunter
Email: Louis.Hunter@jefferson.edu
Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/departments-programs/health-sciences/medical-laboratory-sciences-and-biotechnology/health-sciences-medical-laboratory-sciences-biotechnology-bs.html>)

Program Description

As a student in this program, you will complete foundation and pre-professional coursework with other pre-medical and health students on Jefferson's East Falls Campus. During the second year, students will begin the process of working with faculty to select concentrations in the Medical Laboratory Sciences & Biotechnology program. Students who maintain progression criteria are guaranteed to matriculate into the professional phase, delivered on the Center City campus. Jefferson's academic advisors and faculty work closely with our students on course selection and academic performance to ensure that each student is on pace to transition into the professional phase of the program.

Program Highlights

In our stimulating and supportive environment, you will build a strong foundation in sciences and humanities, preparing you for success in upper-division courses in Medical Laboratory Sciences and Biotechnology.

The Department of Medical Laboratory Sciences and Biotechnology offers three different programs:

- Biotechnology
- Cytotechnology and Cell Sciences
- Medical Laboratory Sciences

2+2 Pathway

In the BS program (2+2), students complete their first two years of preprofessional coursework on the East Falls campus. Students who meet progression criteria matriculate into upper division professional courses on the Center City campus in the third undergraduate year.

They complete their BS in one of the three laboratory programs after their fourth undergraduate year.

3+2 Pathway

In the accelerated Health Sciences BS/MS program (3+2) students complete their first three years of preprofessional coursework on the East Falls campus, in partial fulfillment of the BS degree in Health Sciences. Students who meet progression criteria matriculate into upper division professional courses on the Center City campus in the fourth undergraduate year. The first year of professional courses are applied to the Health Sciences bachelor degree. Students' final year of professional courses comprise the MS degree in one of the three programs. Refer to Medical Laboratory Sciences and Biotechnology section for curriculum information on each program.

Preprofessional Curriculum

- HSCI 2+2 program: 59-62 credits (remaining BS credits completed in professional program)
- HSCI 3+2 program: minimum 87 credits (remaining BS credits + MS credits completed in professional program)

| Course | Title | Credits |
|--|---|--------------|
| First Year | | |
| FYS 100 | Pathways Seminar | 1 |
| WRIT 101 | Writing Sem I: Written Comm. | 3 |
| AVIS 101 | American Visions | 3 |
| PSYC 101 | Intro to Psychology | 3 |
| MATH 102 | Pre-Calculus (or Intro Calc) | 3-4 |
| BIOL 103 & 103L | Biology I and Biology I Lab ¹ | 4 |
| HSCI 100 | Intro to Health Professions | 1 |
| HSCI 230 | Intro to Healthcare | 2 |
| BIOL 104 & 104L | Biology II and Biology II Lab ¹ | 4 |
| CHEM 103 & 103L | Chemistry I and Chemistry I Lab ¹ | 4 |
| CHEM 104 & 104L | Chemistry II and Chemistry II Lab ¹ | 4 |
| Credits | | 32-33 |
| Second Year | | |
| WRIT 2XX | Multimedia Communication | 3-4 |
| ADIV/GDIV/GCIT | Diversity/Citizenship | 3 |
| ADIV/GDIV/GCIT | Diversity/Citizenship | 3 |
| ETHC 2XX | Ethics | 3 |
| HSCI 225 | Applied Statistics | 3 |
| BIOL 201 & 201L | Human Anatomy and Physiology I and Human Anat & Physiology I Lab ¹ | 4 |
| BIOL 202 & 202L | Human Anatomy & Physiology II and Human Anat & Physiology II Lab ¹ | 4 |
| Select one of the following Science Electives: | | 3-4 |
| BIOL 207 | Principles of Genetics | |
| BIOL 256 | Molecular Genetics | |
| BIOL 309 | App in Molecular Bio/Bioinform | |
| BIOL 321 | Immunology | |
| CHEM 201 | Organic Chemistry I | |
| PHYC 111 | Algebra-base PHYC I-Mach&Thermo (for Biotech & Med Lab Sciences) | |
| General Elective (optional) | | 0-3 |
| Credits | | 26-31 |
| Total Credits | | 58-64 |

¹ Science prerequisites

Accelerated Dual Degree 3+2 BS/MS

- Year 3 Coursework (in partial fulfillment of the BS in Health Sciences; first two years' coursework as listed above in the 2+ Pathway program)

| Code | Title | Credits |
|-----------------------------|-----------------------------------|--------------|
| BIOL 221 & 221L | Microbiology and Microbiology Lab | 4 |
| ADIV/GDIV / GCIT | Diversity/Citizenship | 3 |
| CGIS 300 | Contemporary Global Issues | 3 |
| ISEM 300 | Research Methods | 3 |
| General Elective | | 3 |
| PSYC 2XX | Psychology Elective | 3 |
| HSCI 2XX | Health Science Elective | 3 |
| HSCI 330 | Medical Terminology | 3 |
| PHIL 499 | Philosophies of the Good Life | 3 |
| General Elective (optional) | | 0-3 |
| Total Credits | | 28-31 |

- All grades must be C or higher; AP credit accepted for non-science courses only
- Matriculation requires preferred 3.0 or higher overall GPA and science GPA

Health Sciences: Pre-Nursing (BS)

Contacts

Program Director: Louis N. Hunter, PT, DPT

Email: Louis.Hunter@jefferson.edu
215-503-6017

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/departments-programs/health-sciences/pre-nursing.html>)

Program Description

With a strong foundation in sciences, psychology, and humanities, the nursing preparation sequence fulfills all necessary prerequisites for upper-division courses in the Jefferson College of Nursing BSN program.

Students are prepared for roles as compassionate clinical leaders upon graduation.

Program Highlights

Upon completing a BSN program at Jefferson College of Nursing, you will be prepared to excel on the national licensure examination, and will have access to registered nursing positions in all healthcare environments, including Magnet-designated hospitals. Extensive simulation and immersion experiences will prepare you to be a clinical

leader in your profession from day one. Graduates are also prepared to continue in graduate or doctoral level nursing programs to pursue advanced nursing careers.

Prerequisite/Foundation Curriculum: 59-62 Credits

| Course | Title | Credits |
|-----------------------------|--|--------------|
| First Year | | |
| FYS 100 | Pathways Seminar | 1 |
| WRIT 101 | Writing Sem I: Written Comm. | 3 |
| MATH 102 | Pre-Calculus (or higher) | 3 |
| CHEM 103 & 103L | Chemistry I and Chemistry I Lab | 4 |
| BIOL 112 & 112L | Core Concepts of Biology and Core Concepts of Biol Lab | 4 |
| PSYC 101 | Intro to Psychology | 3 |
| WRIT 201 | Writing Seminar II: Multi Comm | 3 |
| AVIS 101 | American Visions | 3 |
| HSCI 100 | Intro to Health Professions | 1 |
| HSCI 230 | Intro to Healthcare | 2 |
| PSYC 201 | Abnormal Psychology | 3 |
| Credits | | 30 |
| Second Year | | |
| HSCI 225 | Applied Statistics | 3 |
| PSYC 213 | Developmental Psychology | 3 |
| HSCI 311 | Intro to Nursing | 2 |
| GDIV or ADIV 2XX | Diversity course | 3 |
| HSCI 304 | Nutrition and Health | 3 |
| BIOL 201 & 201L | Human Anatomy and Physiology I and Human Anat & Physiology I Lab | 4 |
| BIOL 202 & 202L | Human Anatomy & Physiology II and Human Anat & Physiology II Lab | 4 |
| BIOL 221 & 221L | Microbiology and Microbiology Lab | 4 |
| ETHC 2XX | Ethics | 3 |
| General Elective (optional) | | 0-3 |
| Credits | | 29-32 |
| Total Credits | | 59-62 |

- All grades must be C or higher;
- matriculation into the professional phase requires 3.0 or higher overall GPA and science GPA;
- all math and science courses must be completed within 5 years of Nursing matriculation; AP credit accepted for non-science courses only.

Upper-Division Nursing Sequence

- Refer to the Jefferson College of Nursing (JCN) for upper-division nursing curriculum (BSN Traditional Track)

Health Sciences: Pre-Pharmacy (BS)

Contacts

Program Director: Louis N. Hunter, PT, DPT

Email: Louis.Hunter@jefferson.edu
215-503-6017

Campus: East Falls, Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/departments-programs/health-sciences/pre-pharmacy.html>)

Program Description

Two-Year Pathway

Begin your education by completing two years of pre-professional study on the East Falls campus, in preparation for your application to the 4-year, graduate Pharmacy program. While no undergraduate degree is awarded in this pathway, you will have the opportunity to take undergraduate courses with other pre-medical, health sciences and future pharmacy students.

Three-Year Pathway

Students interested in earning their undergraduate degree enter the 3+4 Pre-Pharmacy pathway where they earn both a BS and PharmD in seven years (refer to curriculum below). The extra undergraduate year offers more opportunities to experience college life – like study away and participation in athletics, campus, and leadership experiences. The BS degree in Health Sciences is awarded upon completion of first-year pharmacy graduate coursework.

All Pharmacy applicants must apply to the graduate program through an online centralized application service, PharmCAS, and be invited to interview. East Falls students who meet the progression criteria through the Health Sciences Pre-Pharmacy programs are guaranteed an interview for the competitive professional program at Jefferson College of Pharmacy.

Prerequisite Curriculum/ Foundation: 72 credits

- Two-Year Pathway

| Course | Title | Credits |
|---------------------|--|-----------|
| First Year | | |
| FYS 100 | Pathways Seminar | 1 |
| WRIT 101 | Writing Sem I: Written Comm. | 3 |
| CHEM 103 & 103L | Chemistry I and Chemistry I Lab | 4 |
| AVIS 101 | American Visions | 3 |
| BIOL 103 & 103L | Biology I and Biology I Lab | 4 |
| MATH 103 | Applied Calculus | 3 |
| PSYC 101 | Intro to Psychology | 3 |
| GDIV 2XX | Global Diversity | 3 |
| ADIV 2XX | American Diversity | 3 |
| CHEM 104 & 104L | Chemistry II and Chemistry II Lab | 4 |
| BIOL 104 & 104L | Biology II and Biology II Lab | 4 |
| Credits | | 35 |
| Second Year | | |
| GCIT 2XX | Global Citizenship | 3 |
| ETHC 2XX | Ethics | 3 |
| Designated Elective | | 6-8 |
| BIOL 201 & 201L | Human Anatomy and Physiology I and Human Anat & Physiology I Lab | 4 |
| CHEM 201 & 201L | Organic Chemistry I and Organic Chemistry I Lab | 4 |
| PHYC 111 | Algebra-base PHYC I-Mach&Thermo | 4 |
| BIOL 221 & 221L | Microbiology and Microbiology Lab | 4 |

| Course | Title | Credits |
|----------------------|--|--------------|
| BIOL 202 & 202L | Human Anatomy & Physiology II and Human Anat & Physiology II Lab | 4 |
| CHEM 202 & 202L | Organic Chemistry II and Organic Chemistry II Lab | 4 |
| Credits | | 36-38 |
| Total Credits | | 71-73 |

- All grades must be C or higher; courses must be completed within 5 years of Pharmacy application
- AP credit accepted for non-science courses only
- Students must apply to the graduate program through PharmCAS and meet progression criteria to be eligible to interview for the graduate-level Pharmacy program in Center City

Designated Electives

| Code | Title | Credits |
|----------|---------------------------------|---------|
| HSCI 225 | Applied Statistics | 3 |
| COMM 102 | Course COMM 102 Not Found | 3 |
| ECON 2XX | Economics Elective | 3 |
| ETHC 2XX | Ethics Course Placeholder | 3 |
| BIOL 207 | Principles of Genetics | 3 |
| BIOL 256 | Molecular Genetics | 3 |
| BIOL 302 | Medical Genetics | 3 |
| BIOL 321 | Immunology | 3 |
| PHYC 112 | Algebra-Based PHYS II-Electrici | 4 |

Pharmacy Curriculum

- Refer to the Jefferson College of Pharmacy (JCP) for graduate pharmacy curriculum.

Three-Year Pathway

- Foundation and Prerequisite Coursework (99 credits over Years 1-3) + 24 Pharmacy graduate credits to complete the BS in Health Sciences degree requirement

| Course | Title | Credits |
|--------------------|--|-----------|
| First Year | | |
| FYS 100 | Pathways Seminar | 1 |
| WRIT 101 | Writing Sem I: Written Comm. | 3 |
| CHEM 103 & 103L | Chemistry I and Chemistry I Lab | 4 |
| AVIS 101 | American Visions | 3 |
| BIOL 103 & 103L | Biology I and Biology I Lab | 4 |
| MATH 103 | Applied Calculus | 3 |
| PSYC 101 | Intro to Psychology | 3 |
| GDIV 2XX | Global Diversity | 3 |
| ADIV 2XX | American Diversity | 3 |
| CHEM 104 & 104L | Chemistry II and Chemistry II Lab | 4 |
| BIOL 104 & 104L | Biology II and Biology II Lab | 4 |
| Credits | | 35 |
| Second Year | | |
| GCIT 2XX | Global Citizenship | 3 |
| ETHC 2XX | Ethics | 3 |
| WRIT 2XX | Writing II | 3 |
| BIOL 201 & 201L | Human Anatomy and Physiology I and Human Anat & Physiology I Lab | 4 |

| Course | Title | Credits |
|----------------------|--|----------------|
| PHYC 111 | Algebra-based PHYC I-Mech&Thermo | 4 |
| PSYC 101 | Intro to Psychology | 3 |
| HSCI 230 | Intro to Healthcare | 2 |
| BIOL 221 & 221L | Microbiology and Microbiology Lab | 4 |
| BIOL 202 & 202L | Human Anatomy & Physiology II and Human Anat & Physiology II Lab | 4 |
| Designated Elective | | 3-4 |
| Credits | | 33-34 |
| Third Year | | |
| CHEM 201 & 201L | Organic Chemistry I and Organic Chemistry I Lab | 4 |
| CHEM 202 & 202L | Organic Chemistry II and Organic Chemistry II Lab | 4 |
| HSCI 225 | Applied Statistics | 3 |
| HSCI 330 | Medical Terminology | 3 |
| HSCI 3XX | Health Sciences Elective | 3 |
| PSYC 201 | Abnormal Psychology | 3 |
| CGIS 300 | Contemporary Global Issues | 3 |
| ISEM 3XX | Integrative Seminar | 3 |
| PHIL 499 | Philosophies of the Good Life | 3 |
| General Elective | | 3 |
| Credits | | 32 |
| Total Credits | | 100-101 |

- Pharmacy prerequisites include 9 cr. social science and 9 cr. humanities courses
- All grades must be C or higher; courses must be completed within 5 years of Pharmacy application
- Students must apply to the graduate program through PharmCAS and meet progression criteria to be eligible to interview for the graduate-level Pharmacy program in Center City

Designated Electives

| Code | Title | Credits |
|----------|---------------------------------|---------|
| COMM 102 | Course COMM 102 Not Found | 3 |
| ECON 2XX | Economics Elective | 3 |
| BIOL 207 | Principles of Genetics | 3 |
| BIOL 256 | Molecular Genetics | 3 |
| BIOL 302 | Medical Genetics | 3 |
| BIOL 321 | Immunology | 3 |
| PHYC 112 | Algebra-Based PHYS II-Electrici | 4 |

Health Sciences: Pre-Physician Assistant (BS)

Contacts

Program Director: Louis N. Hunter, PT, DPT

Email: Louis.Hunter@jefferson.edu
215-503-6017

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/departments-programs/health-sciences/physician-assistant-studies/health-sciences-bs-pre-physician-assistant.html>)

Program Description

The Pre-Physician Assistant pathway in Health Sciences is designed for highly qualified students who, due to seat limits, are not accepted into the accelerated BS/MS in Physician Assistant Studies program. Students can complete the four-year BS in Health Sciences degree following the same curriculum as the Pre-PA pathway and, after completing either Year 3 or Year 4, apply for admission into the graduate Physician Assistant (PA) program at Jefferson East Falls or New Jersey campuses. Students from Jefferson who meet progression criteria are guaranteed an admissions interview for selected reserved seats at the East Falls or New Jersey campus graduate program. All PA prerequisite courses are completed during the undergraduate program. Since this pathway is not completed in an accelerated format, it provides students with more opportunities to incorporate experiences like study away, intercollegiate athletics, and leadership roles in student life into their undergraduate education program.

Progression Criteria

Progression criteria for priority interview consideration includes the following: minimum cumulative and science GPAs of 3.5; minimum 200 hours of direct patient contact, completed CASPA online application (requires personal essay, letters of recommendation).

Curriculum: 4 Years, Minimum 120 Credits

| Course | Title | Credits |
|--------------------|--|-----------|
| First Year | | |
| FYS 100 | Pathways Seminar | 1 |
| WRIT 101 | Writing Sem I: Written Comm. | 3 |
| HSCI 100 | Intro to Health Professions | 1 |
| AVIS 101 | American Visions | 3 |
| MATH 102 | Pre-Calculus (or higher) | 3 |
| CHEM 103 & 103L | Chemistry I and Chemistry I Lab | 4 |
| CHEM 104 & 104L | Chemistry II and Chemistry II Lab | 4 |
| BIOL 103 & 103L | Biology I and Biology I Lab | 4 |
| BIOL 104 & 104L | Biology II and Biology II Lab | 4 |
| WRIT 201 | Writing Seminar II: Multi Comm | 3 |
| Credits | | 30 |
| Second Year | | |
| HSCI 230 | Intro to Healthcare | 2 |
| PSYC 101 | Intro to Psychology | 3 |
| GDIV 2XX | Global Diversity | 3 |
| ADIV 2XX | American Diversity | 3 |
| ETHC 2XX | Ethics | 3 |
| PSYC 201 | Abnormal Psychology | 3 |
| HSCI 3XX | Health Sciences Electives | 6 |
| BIOL 201 & 201L | Human Anatomy and Physiology I and Human Anat & Physiology I Lab | 4 |
| BIOL 202 & 202L | Human Anatomy & Physiology II and Human Anat & Physiology II Lab | 4 |
| Credits | | 31 |
| Third Year | | |
| PSYC 213 | Developmental Psychology | 3 |
| ISEM 3XX | Integrative Seminar | 3 |
| BIOL 221 & 221L | Microbiology and Microbiology Lab | 4 |
| GCIT 2XX | Global Citizenship | 3 |

| Course | Title | Credits |
|---|---|------------|
| HSCI 225 | Applied Statistics | 3 |
| HSCI 320 | Clinical Interactions | 3 |
| HSCI 3XX | Health Sciences Elective | 3 |
| Select one of the following: ¹ | | 4 |
| BIOL 207 & 207L | Principles of Genetics and Principles of Genetics Lab | |
| BIOL 256 & 256L | Molecular Genetics and Molecular Genetics Lab | |
| Science Elective | | 4 |
| CHEM 201 & 201L | Organic Chemistry I and Organic Chemistry I Lab (Recom) ² | |
| General Elective | | 3 |
| Credits | | 33 |
| Fourth Year | | |
| CGIS 300 | Contemporary Global Issues | 3 |
| PHIL 499 | Philosophies of the Good Life | 3 |
| PSYC 2XX | Psychology Electives | 6 |
| HSCI 330 | Medical Terminology | 3 |
| General Elective | consider 4-course minor | 15 |
| Credits | | 30 |
| Total Credits | | 124 |

¹ Genetics Lecture/Lab (recom)

² Science Elective CHEM 201 Organic Chemistry I (recom)

Health Sciences: Pre-Respiratory Therapy (BS)

Contacts

Program Director: Louis N. Hunter, PT, DPT

Email: Louis.Hunter@jefferson.edu

Program Description

As a student in this program, you will complete foundation and pre-professional coursework with other pre-medical and health students on Jefferson's East Falls Campus. Students who maintain progression criteria are guaranteed to matriculate into the professional phase, delivered on the Center City campus. Jefferson's academic advisors and faculty work closely with our students on course selection and academic performance to ensure that each student is on pace to transition into the professional phase of the program.

In our stimulating and supportive environment, you will build a strong foundation in sciences and humanities, preparing you for success in upper-division courses in Respiratory Therapy.

Preprofessional Curriculum: 60 credits

- Years 1 & 2

| Course | Title | Credits |
|-------------------|--------------------------------|---------|
| First Year | | |
| FYS 100 | Pathways Seminar | 1 |
| AVIS 101 | American Visions | 3 |
| WRIT 101 | Writing Sem I: Written Comm. | 3 |
| WRIT 201 | Writing Seminar II: Multi Comm | 3 |
| MATH 102 | Pre-Calculus | 3 |
| BIOL 112 | Core Concepts of Biology | 3 |
| BIOL 112L | Core Concepts of Biol Lab | 1 |
| HSCI 100 | Intro to Health Professions | 1 |

| Course | Title | Credits |
|----------------------|--------------------------------|-----------|
| HSCI 230 | Intro to Healthcare | 2 |
| CHEM 101 | General Chemistry | 3 |
| CHEM 101L | General Chemistry I Lab | 1 |
| PSYC 101 | Intro to Psychology | 3 |
| Credits | | 27 |
| Second Year | | |
| ADIV 2XX | American Diversity Placeholder | 3 |
| GCIT 2XX | Global Citizenship Placeholder | 3 |
| HSCI 225 | Applied Statistics | 3 |
| HSCI 330 | Medical Terminology | 3 |
| ETHC 2XX | Ethics Course Placeholder | 3 |
| BIOL 201 | Human Anatomy and Physiology I | 3 |
| BIOL 201L | Human Anat & Physiology I Lab | 1 |
| PHYC 102 | Conceptual Physics | 3 |
| BIOL 221 | Microbiology | 3 |
| BIOL 221L | Microbiology Lab | 1 |
| Credits | | 26 |
| Total Credits | | 53 |

- All grades must be C or higher; AP credit accepted for non-science courses only
- Matriculation into professional program requires recommended minimum 3.0 cumulative GPA and recommended minimum 3.0 science GPA
- Professional Curriculum:** Refer to Respiratory Therapy program for upper level professional coursework leading to the BS in Respiratory Therapy

The Bachelor of Science in Respiratory Therapy program at Thomas Jefferson University is currently pursuing accreditation with the Commission on Accreditation for Respiratory Care (CoARC). CoARC has voted on and accepted our application for provisional accreditation and we received the initial Approval of Intent in July 2022. However, Jefferson can provide no assurance that accreditation will be granted by the CoARC.

Health Services Management (BS)

Associate Dean Academic Programs: Laura Pontiggia, PhD (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/emerging-health-professions/academic-programs/health-services-management.html>)

Program Description

The BS in Health Services Management prepares individuals for entry-level management positions in a wide variety of healthcare settings. Health services managers plan, organize, coordinate and supervise the delivery of healthcare services. They may be generalists who manage or help to manage entire facilities or systems, or specialists who manage clinical departments or services specific to the healthcare industry. You will learn to be familiar with and adapt to changes in healthcare policies, laws, regulations, and technology.

Curriculum: 120 credits

- Continuing & Professional Studies, Accelerated Program

| Code | Title | Credits |
|------------------------------------|--------------------------------|---------|
| CPS General Education Requirements | | |
| Written Communication Elective | | 3 |
| Written Communication Elective | | 3 |
| STAX 211 | Finding & Evaluating Stat Data | 3 |
| Social Science Elective | | 3 |
| COMX 220 | Speak to Lead in Digital Age | 3 |
| PHLX 222 | Applied Professional Ethics | 3 |
| Social Science Elective | | 3 |
| Foundation Requirements | | |
| CSSX 101 | Learning Across the Lifespan | 3 |
| FINX 201 | Acct & Fin for Nonfin Leaders | 3 |
| ECNX 231 | Economic Decision Making | 3 |
| Creativity & Leadership Core | | |
| CLCX 310 | Creativity Fnds & Applications | 3 |
| CLCX 330 | Project Management | 3 |
| CLCX 340 | Leading Diverse Organizations | 3 |
| CLCX 350 | Creative Leadership | 3 |
| CLCX 360 | Leadership in the Digital Age | 3 |
| Major Requirements | | |
| HSMX 301 | Health Systems & Policy | 3 |
| HSMX 303 | Business and Healthcare Law | 3 |
| HSMX 311 | Health Informatics | 3 |
| HSMX 350 | Public Health and Epidemiology | 3 |
| HSMX 351 | Strat Planning/Mrktng for HSOs | 3 |
| HSMX 407 | Fin Mgmt of HSOs | 3 |
| HSMX 412 | Healthcare Qual Improvement | 3 |
| HSMX 498 | Health Services Mgmt Capston | 3 |
| General Electives | | 51 |

Health Studies (BS)

Associate Dean Academic Programs: Laura Pontiggia, PhD (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/emerging-health-professions/academic-programs/health-studies.html>)

Program Description

- Continuing & Professional Studies

The BS in Health Studies serves the needs of students who are interested in a health professions-related program, but who desire maximum flexibility in designing their curriculum. Health Studies majors often have varied backgrounds and future interests that cannot be captured in a singularly-focused health-related degree. The BS in Health Studies will provide you with a solid major core in health studies, including timely topics such as health systems & policy and public health & epidemiology, while enabling you to leverage your prior college coursework and to tailor your health studies electives and general electives to personal goals.

Curriculum: 120 credits

- Continuing & Professional Studies, Accelerated Program

| Code | Title | Credits |
|--|--------------------------------|---------|
| CPS General Education Requirements | | |
| Written Communication Elective | | 3 |
| Written Communication Elective | | 3 |
| Math Elective | | 3 |
| Science Elective | | 3 |
| COMX 220 | Speak to Lead in Digital Age | 3 |
| PHLX 222 | Applied Professional Ethics | 3 |
| Social Science Elective | | 3 |
| Foundation Requirements | | |
| CSSX 101 | Learning Across the Lifespan | 3 |
| HSCX 120 | Medical Terminology | 3 |
| HSCX 200 | Structure of the Human Body | 3 |
| Creativity & Leadership Core | | |
| CLCX 310 | Creativity Fnds & Applications | 3 |
| CLCX 330 | Project Management | 3 |
| CLCX 340 | Leading Diverse Organizations | 3 |
| CLCX 350 | Creative Leadership | 3 |
| CLCX 360 | Leadership in the Digital Age | 3 |
| Health Studies Electives | | 30 |
| Select electives from biological sciences, physical sciences, social sciences, or health professions | | |
| Major Requirements | | |
| HSCX 201 | Human Disease and Treatment | 3 |
| HSMX 301 | Health Systems & Policy | 3 |
| HSMX 350 | Public Health and Epidemiology | 3 |
| NUTX 301 | Nutrition | 3 |
| HSTX 498 | Health Studies Capstone | 3 |
| General Electives | | 30 |

Healthcare Information Systems (Undergraduate Certificate)

Associate Dean Academic Programs: Laura Pontiggia, PhD (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/emerging-health-professions/academic-programs/certificates/healthcare-management-information-systems.html>)

Program Description

The 21 credit Certificate in Healthcare Information Systems provides competency in key areas of healthcare information. All credits earned may be transferred to our baccalaureate program in information technology.

Curriculum: 21 Credits

| Code | Title | Credits |
|----------|--------------------------------|---------|
| CMST 212 | Course CMST 212 Not Found | 3 |
| HCA 300 | Health Services Del & Org | 3 |
| HMIS 310 | Manag Info Sys in Healthcare | 3 |
| HMIS 311 | Info Res & Tech for Health Ser | 3 |
| HMIS 401 | Network Management | 3 |

| Code | Title | Credits |
|----------|---------------------------|---------|
| HMIS 402 | Systems Design | 3 |
| HMIS 420 | Course HMIS 420 Not Found | 3 |

Immunohematology (Graduate Certificate)

Contacts

Program Director: Valerie Jalicke, MS, MLS(ASCP)CM

Email: Valerie.Jalicke@jefferson.edu

215-503-2792

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/departments-programs/medical-laboratory-biotechnology/degrees-programs/graduate-certificates/immunohematology.html>)

Program Description

- Online & On-Campus option

Immunohematologists type and cross-match blood from donors and recipients and analyze specific blood products for use in blood-component therapy. Bloodbanking (immunohematology and transfusion medicine) has become increasingly complicated, since therapy using individual blood components is more in demand than therapy using whole blood.

On-Campus

- Curriculum: 15 Credits

| Code | Title | Credits |
|----------------------|-------------------------------|-----------|
| LS 531 | Immunology | 3 |
| MLS 551 | Immunohematology I | 3 |
| MLS 552 | Immunohematology II | 4 |
| LS 610 | Reg & Fis Issues in Lab. Mgmt | 3 |
| MLS 812 | Med Lab Sci Practicum I | 3 |
| Total Credits | | 16 |

Online

- Curriculum: 10 credits

| Code | Title | Credits |
|----------------------|------------------------------|-----------|
| MLSO 531 | Immunology | 2 |
| MLSO 551 | Immunohematology I | 2 |
| MLSO 552 | Immunohematology II | 2 |
| MLSO 610 | Reg & Fiscal Issues Lab Mgmt | 3 |
| MLSO 812 | Med Lab Sci Comp - Chemistry | 1 |
| Total Credits | | 10 |

Institute of Emerging Health Professions

Associate Dean Academic Programs: Laura Pontiggia, PhD (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/emerging-health-professions.html>)

About Us

Thomas Jefferson University's Institute of Emerging Health Professions (IEHP) is a first-of-its-kind educational incubator aimed at providing the training and education that workers in healthcare and related disciplines will need tomorrow and creating pathways to jobs and skills of the future.

IEHP also offers several undergraduate non-traditional programs, including bachelor degrees in Behavioral & Health Services, Health Sciences, Health Studies and Health Services Management, as well as certificates in Healthcare Information Systems, Medical Coding & Data Quality, and Medical Practice Management. Online and hybrid courses are offered in accelerated 8-week terms and are taught by scholar-practitioner faculty. Our personalized advising model meets each student where they are and empowers them to attain their academic goals.

- IEHP offers innovative and unique graduate certificates and master's programs in emerging fields such as Cannabis, Integrative Health, Emergency and Disaster Medicine, Health Professions Education, and Cardiovascular Perfusion. In all of these programs you will receive cutting-edge education and training from faculty recognized as experts and leaders in their field.

Graduate Degree Programs

- Cardiovascular Perfusion (MS) (p. 99)
- Cardiovascular Perfusion Post-Professional (MS) (p. 99)
- Emergency & Disaster Management (MS) (p. 80)
- Health Professions Education (MS) (p. 100)
- Integrative Health Sciences (MS) (p. 101)
- Medical Cannabis Science and Business (MS) (p. 102)

Undergraduate Degree Programs

- Behavioral and Health Services (BS) (<https://catalog.jefferson.edu/colleges-schools/college-health-professions-jchp/behavioral-health-services-bs/>)
- Health & Human Services: Radiological Technology (p. 81) (AS) (p. 81)
- Health Sciences (BS) (p. 82)
- Health Studies (BS) (p. 96)
- Health Services Management (BS) (p. 95)

Certificate Programs

- Business & Organizational Continuity (Graduate Certificate) (p. 98)
- Cannabis Business (Graduate Certificate) (p. 98)
- Cannabis Medicine (Graduate Certificate) (p. 98)
- Cannabis Science (Graduate Certificate) (p. 98)
- Emergency & Disaster Management (Graduate Certificate) (p. 80)
- Health Professions Teaching and Learning (Graduate Certificate) (p. 101)
- Healthcare Information Systems (Undergraduate Certificate) (<https://catalog.jefferson.edu/colleges-schools/college-health-professions-jchp/healthcare-information-systems-certificate/>)
- Integrative Health Education & Leadership (Advanced-Practice Certificate) (p. 101)
- Integrative Nutrition (Advanced-Practice Certificate) (p. 102)

- Medial Coding & Data Quality (Undergraduate Certificate) (p. 103)
- Medical Practice Management (Undergraduate Certificate) (<https://catalog.jefferson.edu/colleges-schools/college-health-professions-jchp/institute-emerging-health-professions/medical-practice-management-certificate/>)
- Mind-Body Medicine (Advanced-Practice Certificate) (p. 104)

Business & Organizational Continuity (Graduate Certificate)

Contacts

Program Director: David Nitsch, BS, MPH, NREMT-P

Email: David.Nitsch@jefferson.edu

215-951-2558

Program Description

- Continuing & Professional Studies

Designed for working professionals and students in the MS in Emergency & Disaster Management program, this three-course certificate program provides students with an awareness of businesses' vulnerability to major disruptions due to data loss and natural disasters, as well as how to promote an effective recovery.

Curriculum: 9 credits

| Code | Title | Credits |
|---------|--------------------------------|---------|
| EDM 624 | Org Risk and Crisis Mgmt | 3 |
| EDM 625 | Bus Continuity-Plan for Crisis | 3 |
| EDM 626 | Org. Recovery Prep and Plan | 3 |

Cannabis Business (Graduate Certificate)

Contacts

Program Director: Ruth Charbonneau, RN, JD

Email: Ruth.Charbonneau@jefferson.edu

215-503-1111

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/emerging-health-professions/academic-programs/certificates/cannabis-business.html>)

Program Description

The Cannabis Business certificate equips graduates with the knowledge, skills and intrapreneurial mindset needed to turn a unique winning idea that fills an unmet need in the cannabis industry into reality

Learning Outcomes

- Understand key regulatory and business issues applicable to the cannabis industry.
- Develop and implement well managed and well executed financial and operations plans.
- Develop a business canvas, pitch deck, and budget for cannabis businesses.

- Design and manage simple and complex innovative projects related to the cannabis industry.

Curriculum: 9 Credits

(Select 3 courses)

| Code | Title | Credits |
|----------|--------------------------------|---------|
| CBU 501 | Emerg Iss in Cannabis Industry | 3 |
| CBU 506 | Ess/Cannabis Fin & Op Analysis | 3 |
| CBU 509 | Indus Hemp Mat, Process & Prod | 3 |
| CCT 508 | Qual C&A in Med Cnbs Ana & Dis | 3 |
| IMBA 604 | Business Model Innovation | 3 |

Cannabis Medicine (Graduate Certificate)

Contacts

Program Director: Ruth Charbonneau, RN, JD

Email: Ruth.Charbonneau@jefferson.edu

215-503-1111

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/emerging-health-professions/academic-programs/certificates/cannabis-medicine.html>)

Program Description

The graduate certificate in Cannabis Medicine is designed to provide an understanding of the underlying science and clinical applications of endocannabinoids, phytocannabinoids, and synthetic cannabinoids.

Learning Outcomes

- Apply clinical and basic sciences knowledge to identify appropriate cannabis therapies for specific medical conditions.
- Explain mechanisms of action, functional roles, and absorption/distribution/metabolism/excretion of cannabinoids in humans.
- Determine medical cannabis/cannabinoids proper administration and safe dosing, and identify its physical, psychiatric, and psychological effects.

Curriculum: 9 Credits

| Code | Title | Credits |
|----------------------|--------------------------------|----------|
| CMD 503 | Path Poten Respon to Cannabis | 3 |
| CMD 504 | Convent & Cannab Therap of Dis | 3 |
| CMD 505 | Hlth Implicat of Med Cannabis | 3 |
| Total Credits | | 9 |

Cannabis Science (Graduate Certificate)

Contacts

Program Director: Ruth Charbonneau, RN, JD

Email: Ruth.Charbonneau@jefferson.edu

215-503-1111

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/emerging-health-professions/academic-programs/certificates/cannabis-science.html>)

Program Description

The Cannabis Science certificate provides an in-depth view of the botany and chemistry of the cannabis plant, cannabinoids pharmacology and resultant effects, and how to identify and quantify the different chemical components and potential toxicants in cannabis.

Learning Outcomes

- Discover many different ways of working in the cannabis industry
- Learn about the chemistry of the cannabis plant and how plant genetics change over time.
- Understand how cannabis was used in ancient societies over the ages.
- Utilize advanced analytical technologies to identify potential toxins in cannabis and to monitor the concentrations of cannabis constituents to improve the quality of cannabis-based products.
- Describe the mechanisms of action and functional roles of endogenous cannabinoids in humans.
- Understand how plant cannabinoids interact with the endogenous cannabinoid neurotransmitter system to produce both positive and negative effects.

Curriculum: 9 Credits

| Code | Title | Credits |
|----------------------|-------------------------------|----------|
| CSC 511 | Botany and Chem of Cannabis | 3 |
| CSC 512 | Forensic Analysis of Cannabis | 3 |
| CSC 513 | Cannabinoid Pharmacology | 3 |
| Total Credits | | 9 |

Cardiovascular Perfusion (MS)

Contacts

Program Director: Brian Schwartz, BA, CCP, RN, BSN, MBA

Email: Brian.Schwartz@Jefferson.edu

215-503-1111

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/emerging-health-professions/academic-programs/ms-cardiovascular-perfusion/entry-level.html>)

Program Description

The Center for Perfusion and Extracorporeal Technology will produce competent entry-level perfusionists in the cognitive, psychomotor, and affective learning domains. Graduates will be eligible to apply to take the national certification examinations offered by the American Board of Cardiovascular Perfusion.

The mission of the Center for Perfusion and Extracorporeal Technology is to train competent, focused and highly skilled perfusion technicians. Using evidence-based medicine, the program will produce students ready for board examinations and prepare graduates to perform the duties and responsibilities of a cardiovascular perfusionist in a variety of clinical settings.

Learning Domains

1. Cognitive - Mastery of the entry-level body of knowledge regarding the application of clinical perfusion.
2. Psychomotor - Mastery of the fundamental and emergency clinical skills necessary for the safe conduct of clinical perfusion.
3. Affective - Fluency of professional communication, behaviors and attitudes.

Curriculum: 2 Years, 85 Credits

| Course | Title | Credits |
|----------------------|-----------------------------------|-----------|
| First Year | | |
| Fall | | |
| PER 500 | Perfusion Technology I | 4 |
| PER 510 | Human Physiology | 4 |
| PER 520 | CV Anatomy | 3 |
| PER 690 | Clin App in Perfusion I | 3 |
| PER 650 | Organizational Leadership | 3 |
| Credits | | 17 |
| Spring | | |
| PER 600 | Perfusion Technology II | 4 |
| PER 620 | Pharmacology for Perfusion | 3 |
| PER 610 | Human Physiology II | 4 |
| PER 540 | Pathophysiology | 3 |
| PER 691 | Clin Application Perfusion II | 4 |
| Credits | | 18 |
| Summer | | |
| PER 640 | Applications of ECMO & VAD | 1 |
| PER 692 | Clinical App in Perfusion III | 12 |
| PER 660 | Foundation/Biostatistical Methods | 3 |
| Credits | | 16 |
| Second Year | | |
| Fall | | |
| PER 693 | Clin App in Perfusion | 12 |
| PER 530 | Medical Ethics | 2 |
| PER 670 | Applied Research Des & Methods | 3 |
| Credits | | 17 |
| Spring | | |
| PER 694 | Clin Application Perfusion V | 12 |
| PER 550 | Perfusion Basic Science Review | 2 |
| PER 700 | Perfusion Capstone Project | 3 |
| Credits | | 17 |
| Total Credits | | 85 |

Cardiovascular Perfusion Post-Professional (MS)

Contacts

Program Director: Brian Schwartz, BA, CCP, RN, BSN, MBA

Email: Brian.Schwartz@Jefferson.edu

215-503-1111

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/emerging-health-professions/academic-programs/ms-cardiovascular-perfusion/post-professional.html>)

Program Description

Jefferson's post professional MS in Cardiovascular Perfusion affords certified cardiovascular perfusionist (CCP), who have graduated from an AC-PE accredited perfusion program, to build upon their current knowledge base and earn a master's degree from one of the nation's most reputable universities. After successfully completing all required courses, conducting research, and presenting an evidence-based project on how to better patient outcomes, students will earn their post professional master's degree.

The program will utilize online technology to provide working professionals the opportunity of obtaining a MS in Cardiovascular Perfusion.

Program Goals

- Allow perfusionists to develop (or build upon current practices) and implement methodologies that are supported by evidence-based medicine to aid in better outcomes for their patients.
- Have students complete a capstone project to enhance their current clinical practices.
- Promote both personal and professional growth to certified perfusionist wishing to further their perfusion education.

Curriculum: 2 Years, 14 Credits

| Course | Title | Credits |
|----------------------|-----------------------------------|-----------|
| First Year | | |
| Fall | | |
| PER 650 | Organizational Leadership | 3 |
| PER 660 | Foundation/Biostatistical Methods | 3 |
| PER 530 | Medical Ethics | 2 |
| Credits | | 8 |
| Second Year | | |
| Fall | | |
| PER 670 | Applied Research Des & Methods | 3 |
| PER 700 | Perfusion Capstone Project | 3 |
| Credits | | 6 |
| Total Credits | | 14 |

Under Construction Health & Human Services: Radiologic Technology (AS)

Associate Dean Academic Programs: Laura Pontiggia, PhD (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/emerging-health-professions/academic-programs/associates-radiologic-technology.html>)

Program Description

This 63-credit program builds on transferable credits earned through successful completion of specified **Albert Einstein Medical Center School of Radiologic Technology** coursework.

- Block Transfer Segment 1: Radiologic Technology Technician Program 5 credits
- Block Transfer Segment 2: Radiologic Technology Technician Program 20 credits

- Block Transfer Segment 3: Radiologic Technology Technician Program 17 credits

Curriculum: 63 credits

- Includes block transfer
- Continuing & Professional Studies

| Code | Title | Credits |
|-------------------------------|---------------------------------|---------|
| General Education Core | | |
| WRIT 105 | Writing About Workplace Culture | 3 |
| PLA 100 | Course PLA 100 Not Found | 1 |
| MATH 215 | College Algebra | 3 |
| HIST 114AC | Amer in Focus: Themes US Hist | 3 |
| PSYC 100 | Introduction to Psychology | 3 |
| HUMN 301 | Art and Context | 3 |
| or HUM 310 | | |
| IT 201 | Learning and Technology | 3 |

Health Professions Education (MS)

Contacts

Program Director: Shruti Chandra, MD, MEHP

Email: Shruti.Chandra@jefferson.edu
215-955-6844

Campus: Center City

Program Website: (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/emerging-health-professions/academic-programs/ms-health-professions-education.html>)

Program Description

The MS in Health Professions Education is a 30-credit, fully online, interprofessional master program designed to prepare leaders in health professions education, leveraging evidence-based approaches, educational best practices, and Jefferson's technology-rich environment.

The innovative curriculum includes courses in the traditional core areas for health professions education programs and novel courses covering Education Law, Diversity, Simulation and Inter-professional Education.

Learning Goals/Outcomes

- Incorporate understanding of pedagogical principles into health science teaching
- Design and implement curricula in various formats including for classroom, clinical and virtual teaching.
- Effectively integrate technology into education.
- Demonstrate understanding of approaches to student assessment and program evaluation.
- Apply evidence-based principles to inform education and teaching practices.
- Become an effective leader in graduate health professional/medical education.
- Apply inter-professional and collaborative teaching models.
- Employ simulation education for health professions.

Curriculum: 30 Credits, Two Years

| Code | Title | Credits |
|-------------------------|----------------------------------|--------------|
| Required Courses | | |
| HPE 510 | Adult Learn in the Health Prof | 2 |
| GC 752 | Curriculum & Instructional Des | 2 |
| GC 753 | Program Assessment & Eval | 2 |
| HPE 530 | Higher Education Leadership | 2 |
| HPE 601 | Educational Research & Scholar | 2 |
| HPE 520 | Sim for Health Prof Educ | 3 |
| HPS 620 | Interprof Edu Collab Prac Hlth | 3 |
| HPE 700 | Health Prof Educ Capstone I | 1 |
| HPE 701 | Health Prof Educ Capstone II | 1 |
| Electives | | |
| HPE 650 | GME Learners | 3 |
| HPE 615 | Princip & Pract for Equi Learn | 3 |
| HPE 625 | Health Prof Educ & Law | 3 |
| HPE630 | Course HPE630 Not Found | |
| GC 751 | Instructional Tech & Learning | 2 |
| HPE 640 | Writing Grnts Health Prof Educ | 2 |
| HPE 651 | Course HPE 651 Not Found | |
| HPS/CRS/ PER 600 | Course HPS/CRS/PER 600 Not Found | |
| HPE 699 | Residency / Fellowship PLA | 1-3 |
| Total Credits | | 32-34 |

Health Professions Teaching and Learning (Graduate Certificate)

Contacts

Program Director: Shruti Chandra, MD, MEHP

Email: Shruti.Chandra@jefferson.edu

Program Description

The graduate certificate in health professions teaching and learning will prepare current healthcare professionals to become successful and effective clinical educators, providing them the knowledge and skills to utilize evidence-based frameworks and best practice methodologies to educate the future healthcare workforce.

Learning Goals/Outcomes

- Make use of the primary literature to identify problems in health professions teaching and learning.
- Compose written documents that advance the understanding of fellow students and scholars.
- Make use of discussion and debate to develop solutions to emerging challenges in health professions teaching and learning.
- Develop evidence-based approaches to the improvement of health professions teaching and learning.
- Develop a theoretical and practical framework for healthcare workforce education and training.

Curriculum: 9 credits

| Code | Title | Credits |
|---------|--------------------------------|---------|
| GC 751 | Instructional Tech & Learning | 2 |
| GC 752 | Curriculum & Instructional Des | 2 |
| GC 753 | Program Assessment & Eval | 2 |
| HPE 520 | Sim for Health Prof Educ | 3 |
| HPS 620 | Interprof Edu Collab Prac Hlth | 3 |

Integrative Health Education & Leadership (Advanced-Practice Certificate)

Associate Dean Academic Programs: Laura Pontiggia, PhD (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/emerging-health-professions/academic-programs/certificates/integrative-health-education-advanced-practice.html>)

Program Description

The Advanced Practice Certificate in Integrative Health Education & Leadership focuses on the theories, evidence for and practice of integrative health education approaches and prepares students to meet patients' growing demand of complementary practices. This program builds on existing knowledge of Integrative Health. It is for individuals who have significant background in the field, or for those who have taken or are enrolled in the other two Integrative Health advanced practice certificates: Mind-Body Medicine and Integrative Nutrition.

Learning Outcomes

- Understand evidence-based teaching practices, health psychology, dynamics of motivation, and behavior modification.
- Develop integrative treatment plan metrics for outcomes across illness and wellness populations.
- Develop and communicate health education milestones for long term treatment planning, adherence, and compliance.
- Utilize a range of Integrative Health Education knowledge, skills, and processes, especially when encountering challenging education situations.

| Code | Title | Credits |
|----------------------|--------------------------------|----------|
| IHE 600 | Foundations in Int Health Educ | 3 |
| IHE 610 | Int Dvlp Model Well & Ldrshp | 3 |
| IHE 620 | Integrative Hlth Edu Practicum | 3 |
| Total Credits | | 9 |

Integrative Health Sciences (MS)

Associate Dean Academic Programs: Laura Pontiggia, PhD (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/emerging-health-professions/academic-programs/ms-integrative-health-sciences.html>)

Program Description

The Master of Science in Integrative Health Sciences degree offers health professionals an opportunity to gain a deep background in integrative health in order to meet the growing demand for wellness-oriented strategies to improve health outcomes and well-being.

Integrative health is an emerging specialty that is of expanding interest. Jefferson is leading the nation in developing a clinical and academic model of integrative healthcare. Key components of the model are highlighted and emphasized in the master's degree curriculum, including advanced nutrition, nutrition-based therapies, innovative mind-body medicine practices, and other scientifically promising modalities.

The MS Degree encompasses 3 stackable Advanced Practice certificates in the following areas:

- Mind-Body Medicine
- Integrative Nutrition
- Integrative Health Education & Leadership

Plus a capstone course that delivers a 30-credit MS degree. A research course may be required as determined by the program director.

Learning Goals/Outcomes

- Understand the complex role of nutrition in biochemistry, physiology, illness and health.
- Define biomarkers of nutritional deficiencies and suboptimal nutritional states.
- Construct an integrative nutritional plan for a wide range of patients.
- Understand the complex network that constitutes "mind-body" and construct an integrative mind-body plan for a wide range of patients.
- Explain common mind-body interventions and discuss the evidence and/or lack of evidence supporting their use.
- Utilize a range of Integrative Health Education knowledge, skills, and processes, especially when encountering challenging education situations.
- Understand evidence-based teaching practices, health psychology, dynamics of motivation, and behavior modification.
- Develop integrative treatment plan metrics for outcomes across illness and wellness populations.
- Develop and communicate health education milestones for long-term treatment planning, adherence, and compliance.

Curriculum: 30 Credits

| Code | Title | Credits |
|--|--------------------------------|---------|
| Mind-Body Certificate | | |
| MBM 500 | Foundations in Mind-Body Med | 3 |
| MBM 510 | Advances in MBSR | 3 |
| MBM 520 | Advanced Mind-Body Pract (NET) | 3 |
| Integrative Nutrition Certificate | | |
| IN 500 | Foundations in Intgr Nutrition | 3 |
| IN 510 | Func Genmc, Protmc, Metabolcs | 3 |
| IN 520 | Adv Conc in Integrative Nutr | 3 |
| Integrative Health Education & Leadership Certificate | | |
| IHE 600 | Foundations in Int Health Educ | 3 |

| Code | Title | Credits |
|------------------------------------|--------------------------------|-----------|
| IHE 610 | Int Dvlp Model Well & Ldrshp | 3 |
| IHE 620 | Integrative Hlth Edu Practicum | 3 |
| Additional Required Courses | | |
| IHE 700 | Integrative Health MS Capstone | 3 |
| Total Credits | | 30 |

Integrative Nutrition (Advanced-Practice Certificate)

Associate Dean Academic Programs: Laura Pontiggia, PhD (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/emerging-health-professions/academic-programs/certificates/integrative-nutrition-advanced-practice.html>)

Program Description

The Integrative Nutrition Advanced Practice Certificate is unique in that it provides a foundation in nutritional science, as well as clinical and integrative applications of diets and specific nutrients. With an increasingly high-demand for nutrition education among physicians and many other health professionals, learners will be better equipped to address nutrition as a tool for improving overall health outcomes across a wide range of patients.

Learning Outcomes

- Understand the complex role of nutrition in biochemistry, physiology, illness and health
- Describe the role of macro and micro nutrients in regard to nutritional status
- Explain the differences among common dietary approaches and discuss the evidence and/or lack of evidence supporting their use
- Define biomarkers of nutritional deficiencies and suboptimal nutritional states
- Construct and integrative nutritional plan for a wide range of patients. Understand the complex role of nutrition in biochemistry, physiology, illness and health.

Curriculum: 9 Credits

| Code | Title | Credits |
|----------------------|--------------------------------|----------|
| IN 500 | Foundations in Intgr Nutrition | 3 |
| IN 510 | Func Genmc, Protmc, Metabolcs | 3 |
| IN 520 | Adv Conc in Integrative Nutr | 3 |
| Total Credits | | 9 |

Medical Cannabis Science and Business (MS)

Contacts

Program Director: Ruth Charbonneau, RN, JD

Email: Ruth.Charbonneau@jefferson.edu
215-503-1111

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/emerging-health-professions/academic-programs/ms-medical-cannabis-science-business.html>)

Program Description

Designed to provide students with the knowledge in cannabis medicine, science, business, and policies, required to enter the cannabis industry, support patients, add to existing research, and develop innovative cannabis business models.

The MS degree program encompasses three stackable graduate certificates in the following areas:

- Cannabis Medicine (clinical applications, physiological impacts, therapies, and health effects)
- Cannabis Science (botany, chemistry, pharmacology, and toxicology)
- Cannabis Business (regulations, management, operations, financial analysis, and business model innovation)

Learning Goals/Outcomes

- Apply concepts of analytical chemistry, pharmacology, pharmacognosy, and pharmaceuticals and drug development to assure safety and quality of cannabis products, and to develop and manufacture new cannabis strains.
- Explain mechanisms of action, functional roles, and absorption/distribution/ metabolism/ excretion of cannabinoids in humans.
- Apply clinical and basic sciences knowledge to identify appropriate cannabis therapies for specific medical conditions, determine proper administration and safe dosing, and identify physical, psychiatric, and psychological effects.
- Blend knowledge and skill sets from different disciplinary areas to develop effective business strategies.
- Apply knowledge of historical and current cultural and policy perspectives to identify, analyze, and advocate for emerging issues related to the cannabis industry.
- Identify areas for future research related to science, health effects, therapeutic and/or business of medical cannabis, and design a grounded research study using the principles of research to address one specific issue.

Curriculum: 33 Credits

To earn the MS in Medical Cannabis Science and Business students must satisfy the following requirements:

| Code | Title | Credits |
|--|--------------------------------|---------|
| CMD Courses (Select Two) | | |
| CMD 503 | Path Poten Respon to Cannabis | 3 |
| CMD 504 | Convent & Cannab Therap of Dis | 3 |
| CMD 505 | Hlth Implicat of Med Cannabis | 3 |
| CSC Courses (Select Two) | | |
| CSC 511 | Botany and Chem of Cannabis | 3 |
| CSC 512 | Forensic Analysis of Cannabis | 3 |
| CSC 513 | Cannabinoid Pharmacology | 3 |
| CBU or iMBA Courses (Select Two) | | |
| CBU 501 | Emerg Iss in Cannabis Industry | 3 |
| CBU 506 | Ess/Cannabis Fin & Op Analysis | 3 |
| IMBA 604 | Business Model Innovation | 3 |
| Select Any Three Courses (CMD, CSC, CBU, CCT or CSO) | | |

Medical Coding & Data Quality (Undergraduate Certificate)

Associate Dean Academic Programs: Laura Pontiggia, PhD (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/emerging-health-professions/academic-programs/certificates/medical-coding-and-data-quality.html>)

Program Description

The 34 credit Medical Coding and Data Quality Certificate Program at Jefferson combines traditional academic coursework, state-of-the-art technology, and supervised fieldwork with expert certified medical coders. The program emphasizes ethical and regulatory policies necessary to produce accurate high-quality coding data that support the economic vitality of the US healthcare system. The Coding Certificate will help you succeed in the Health Information Management field, which is expected to grow by over 8% (twice the average for all occupations) through 2029, according to the Bureau of Labor Statistics. Students in our Medical Coding & Data Quality Certificate program are prepared for entry-level medical coding positions in a physician's practice, hospital, rehabilitation center, skilled nursing facility and other healthcare settings.

Curriculum: 34 credits

- Continuing & Professional Studies

| Code | Title | Credits |
|----------|--------------------------------|---------|
| HSCX 120 | Medical Terminology | 3 |
| HSCX 200 | Structure of the Human Body | 3 |
| HSCX 201 | Human Disease and Treatment | 3 |
| CODP 100 | Intro Health Info & Data Qual | 3 |
| CODP 202 | ICD-10 CM | 3 |
| HSMX 303 | Business and Healthcare Law | 3 |
| CODP 203 | CPT Coding Concepts | 3 |
| CODP 204 | Applications of CPT Coding | 3 |
| CODP 205 | ICD-10 PCS | 3 |
| CODP 206 | ICD-10 Principles/Applications | 1 |
| CODP 207 | Reimbursement Methodology | 3 |
| CODP 210 | Coding Profess Practicum Exper | 3 |

Medical Practice Management (Undergraduate Certificate)

Associate Dean Academic Programs: Laura Pontiggia, PhD (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/emerging-health-professions/academic-programs/certificates/medical-practice-management.html>)

Program Description

The 36 credit Certificate in Medical Practice Management provides comprehensive preparation for the management and administration of day-to-day operations of a health professional practice. The program includes enhanced skills in computer applications, managerial accounting and management as well as presentation of legal issues related to healthcare practice. All courses are transferable to the BS in Health Services Management.

Curriculum: 36 credits

- Continuing & Professional Studies

| Code | Title | Credits |
|----------|---------------------------|---------|
| ACCT 102 | Managerial Accounting | 3 |
| ACCT 101 | Financial Accounting | 3 |
| CMST 201 | Course CMST 201 Not Found | 3 |
| ENGL 101 | Course ENGL 101 Not Found | 3 |
| ENGL 103 | Course ENGL 103 Not Found | 3 |
| HCA 300 | Health Services Del & Org | 3 |
| HCA 302 | Hlth Care Class Systems | 3 |
| HCA 303 | Course HCA 303 Not Found | 3 |
| HCA 410 | Medical Practice Mgmt | 3 |
| HSC 120 | Medical Terminology | 3 |
| MGMT 101 | Course MGMT 101 Not Found | 3 |
| MGMT 102 | Human Resource Management | 3 |

Mind-Body Medicine (Advanced-Practice Certificate)

Contacts

Email: IntegrativeMedEd@jefferson.edu
215-955-2221

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/emerging-health-professions/academic-programs/certificates/mind-body-medicine-advanced-practice.html>)

Program Description

With an increasingly high-demand for mind-body education among health professionals, learners will be better equipped to incorporate these modalities into practice to improve overall health outcomes across a wide range of patients. Upon completion of this certificate, students will fulfill the foundational course requirements needed for Mindfulness-Based Stress Reduction (MBSR) and the Neuro-Emotional Technique (NET) basic training.

Learning Outcomes

- Understand the complex network that constitutes "mind-body"
- Describe the role of stress in health outcomes
- Explain common mind-body interventions and discuss the evidence and/or lack of evidence supporting their use
- Define the relationship between nutrition and mind-body well-being
- Construct an integrative mind-body plan for a wide range of patients

Curriculum: 9 Credits

| Code | Title | Credits |
|----------------------|--------------------------------|----------|
| MBM 500 | Foundations in Mind-Body Med | 3 |
| MBM 510 | Advances in MBSR | 3 |
| MBM 520 | Advanced Mind-Body Pract (NET) | 3 |
| Total Credits | | 9 |

Medical Imaging & Radiation Sciences (BS)

Contacts

Program Director: Colleen Dempsey, EdD, RT (R)

Email: Colleen.Dempsey@jefferson.edu
215-503-9191

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/departments-programs/medical-imaging-radiation-sciences/degrees-programs/bs-programs.html>)

Program Description

The Department of Medical Imaging and Radiation Sciences prepares students for careers in medical imaging and radiation oncology. As the field of radiology has become more advanced and complex, the need exists for proficient, multi-skilled professionals. Medical imaging and radiation science professionals operate sophisticated equipment to produce optimal diagnostic images, calculate radiation treatment plans and deliver radiation treatments. They have the knowledge to identify normal and abnormal anatomy and physiology, are responsible for the well-being of patients in their care and are a member of the health care team.

The mission of the Department of Medical Imaging and Radiation Sciences is to provide a comprehensive education preparing students for entry-level practice in medical imaging and radiation sciences as competent, caring members of the health care team, cultivating professionalism and life-long learning.

One Year Program Concentrations

Students who have the 50 prerequisite credits and a baccalaureate degree are eligible to apply to the following one-year concentrations:

- Abdomen-Extended & OB/GYN (General Ultrasound)
- Cardiac Sonography
- Magnetic Resonance Imaging
- Medical Dosimetry
- Radiation Therapy
- Radiography
- Vascular Sonography

Students who have the 50 prerequisite credits and certification in or have graduated from an accredited program in medical imaging and radiation science may apply to the following one-year concentrations:

- Abdomen-Extended & OB/GYN General (Ultrasound)
- Cardiac Sonography
- Computed Tomography – requires ARRT (R), (T), (N) or CNMT
- Invasive Cardiovascular Technology – requires ARRT(R) or ARDMS RDCS/RVT
- Magnetic Resonance Imaging
- Medical Dosimetry – requires ARRT (T) or successful completion of a JRCERT-accredited Radiation Therapy Program)
- Radiation Therapy
- Radiography
- Vascular Sonography

Two Year Program Concentrations

Imaging Concentrations

- Abdomen-Extended & OB/GYN (General Ultrasound)
- Cardiac Sonography
- Computed Tomography¹
- Invasive Cardiovascular Technology²
- Magnetic Resonance Imaging
- Radiography
- Vascular Sonography

Radiation Oncology Concentrations

- Radiation Therapy
- Medical Dosimetry³

Non-Imaging Concentrations

Health Service Management

¹ Second year - **Only** after the first year of Radiography, Radiation Therapy, or Nuclear Medicine

² Second year- **Only** after the first year of Radiography, Cardiac Sonography, or Vascular Sonography

³ Second year-offered in the Institute of Emerging Health Professions

Concentration: Abdomen-Extended & OB/GYN (General Ultrasound)

| Code | Title | Credits |
|-------------------|--------------------------------|---------|
| Semester 1 | | |
| RSS 321 | Patient Care & Serv in Diag Im | 2 |
| RSS 400 | Ultrasound Physics I | 2 |
| RSS 402 | Abdominal Sonography I | 2 |
| RSS 404 | Pelvic Sonography | 3 |
| RSS 412 | Clinical Sonography I | 6 |
| RSS 415 | Sonography Procedures I | 2 |
| Semester 2 | | |
| RSS 403 | Ultrasound Physics II | 2 |
| RSS 405 | Obstetrical Sonography | 3 |
| RSS 413 | Clinical Sonography II | 6 |
| RSS 416 | High Resolution Sonography | 2 |
| RSS 417 | Sonography Procedures II | 2 |
| RSS 422 | Abdominal Sonography II | 2 |
| RSS 498 | Spec Topics in General Sonog | 2 |
| Semester 3 | | |
| RSS 408 | Sonography Review Seminar | 2 |
| RSS 414 | Clinical Sonography III | 8 |

Concentration: Cardiac Sonography

| Code | Title | Credits |
|-------------------|--------------------------------|---------|
| Semester 1 | | |
| RSCS 302 | Noninvasive Test Prin & Proced | 1 |
| RSCS 311 | Cardiovascular Physiology | 2 |

| Code | Title | Credits |
|----------------------|-------------------------------|-----------|
| RSCS 321 | Pat Care & Serv in Diag Imag | 2 |
| RSCS 331 | Cardiac Procedures I | 2 |
| RSCS 351 | Cardiac Principles I | 3 |
| RSCS 400 | Ultrasound Physics I | 2 |
| RSCS 411 | Clinical Cardiac I | 6 |
| RSCS 491 | Special Topics Cardiac Sonog | 1 |
| Semester 2 | | |
| RSCS 312 | Cadiovascular Pathophysiology | 2 |
| RSCS 332 | Cardiac Procedures II | 2 |
| RSCS 352 | Cardiac Principles II | 3 |
| RSCS 403 | Ultrasound Physics II | 2 |
| RSCS 412 | Clinical Cardiac II | 6 |
| RSCS 492 | Special Topics Cardiac Sonog | 1 |
| Semester 3 | | |
| RSCS 413 | Clinical Cardiac III | 8 |
| RSCS 481 | Cardiac Review Seminar | 2 |
| Total Credits | | 45 |

Concentration: Computed Tomography

| Code | Title | Credits |
|----------------------|--------------------------------|-----------|
| Semester 1 | | |
| RSC 400 | CT Physics & Instrumentation | 3 |
| RSC 401 | Cross Sectional Anatomy I | 2 |
| RSC 412 | Clin Computed Tomography I | 6 |
| RSC 431 | CT Procedures I | 3 |
| RSC 433 | CT Procedures Simulation Lab I | 1 |
| Semester 2 | | |
| RSC 402 | Cross Sec Anatomy II | 2 |
| RSC 413 | Clinical CT II | 6 |
| RSC 432 | CT Procedures II | 3 |
| RSC 434 | CT Procedures Sim Lab II | 1 |
| RSC 451 | Imaging Informatics | 1 |
| RSC 498 | Special Topics in CT | 1 |
| Semester 3 | | |
| RSC 414 | Clinical CT III | 8 |
| RSC 473 | Computed Tomography Seminar | 2 |
| Total Credits | | 39 |

Concentration: Invasive Cardiovascular Technology-Cardiac Sonography Background

| Code | Title | Credits |
|-------------------|-------------------------------|---------|
| Semester 1 | | |
| RSI 338 | Invasive Procedures I | 3 |
| RSI 341 | Radiation Physics & Instrum I | 3 |
| RSI 357 | Invasive Principles I | 3 |
| RSI 431 | Clinical Invasive I | 6 |
| Semester 2 | | |
| RSI 313 | Radiobiology Health Physics | 2 |

| Code | Title | Credits |
|----------------------|--------------------------------|-----------|
| RSI 339 | Invasive Procedures II | 3 |
| RSI 342 | Radiography Physics & Instr II | 2 |
| RSI 358 | Invasive Principles II | 3 |
| RSI 432 | Clinical Invasive II | 6 |
| Semester 3 | | |
| RSI 433 | Clinical Invasive III | 8 |
| RSI 483 | Invasive Review Seminar | 2 |
| Total Credits | | 41 |

Concentration: Invasive Cardiovascular Technology-Radiography Background

| Code | Title | Credits |
|----------------------|--------------------------------|-----------|
| Semester 1 | | |
| RSI 302 | Noninvasive Test Prin & Proced | 1 |
| RSI 311 | Cardiovascular Physiology | 2 |
| RSI 338 | Invasive Procedures I | 3 |
| RSI 357 | Invasive Principles I | 3 |
| RSI 431 | Clinical Invasive I | 6 |
| Semester 2 | | |
| RSI 312 | Cardiovascular Pathophysiology | 2 |
| RSI 339 | Invasive Procedures II | 3 |
| RSI 358 | Invasive Principles II | 3 |
| RSI 432 | Clinical Invasive II | 6 |
| Semester 3 | | |
| RSI 433 | Clinical Invasive III | 8 |
| RSI 483 | Invasive Review Seminar | 2 |
| Total Credits | | 39 |

Concentration: Invasive Cardiovascular Technology-Vascular Sonography Background

| Code | Title | Credits |
|----------------------|--------------------------------|-----------|
| Semester 1 | | |
| RSI 302 | Noninvasive Test Prin & Proced | 1 |
| RSI 338 | Invasive Procedures I | 3 |
| RSI 341 | Radiation Physics & Instrum I | 3 |
| RSI 357 | Invasive Principles I | 3 |
| RSI 431 | Clinical Invasive I | 6 |
| Semester 2 | | |
| RSI 312 | Cardiovascular Pathophysiology | 2 |
| RSI 339 | Invasive Procedures II | 3 |
| RSI 342 | Radiography Physics & Instr II | 2 |
| RSI 358 | Invasive Principles II | 3 |
| RSI 432 | Clinical Invasive II | 6 |
| Semester 3 | | |
| RSI 433 | Clinical Invasive III | 8 |
| RSI 483 | Invasive Review Seminar | 2 |
| Total Credits | | 42 |

Concentration: Magnetic Resonance Imaging (MRI)

| Code | Title | Credits |
|----------------------|-------------------------------|-----------|
| Semester 1 | | |
| RSM 321 | Pat Care & Serv in Diag Imag | 2 |
| RSM 400 | MRI Physics&Instrumentation I | 3 |
| RSM 401 | Cross Sectional Anatomy I | 2 |
| RSM 411 | MRI Patient Care & Safety | 2 |
| RSM 412 | Clinical MRI I | 6 |
| RSM 431 | MRI Procedures I | 3 |
| Semester 2 | | |
| RSM 402 | Cross Sec Anatomy II | 2 |
| RSM 403 | MRI Phys and instrument II | 1 |
| RSM 413 | Clinical MRI II | 6 |
| RSM 415 | MRI Pathology | 1 |
| RSM 432 | MRI Procedures II | 3 |
| RSM 451 | Imaging Informatics | 1 |
| RSM 498 | MRI Special Topics | 1 |
| Semester 3 | | |
| RSM 414 | Clinical MRI III | 8 |
| RSM 473 | MRI Seminar | 2 |
| RSM 474 | MRI Advanced Scanning Seminar | 1 |
| Total Credits | | 44 |

Concentration: Medical Dosimetry

| Code | Title | Credits |
|----------------------|--|-----------|
| Semester 1 | | |
| RSD 322 | Patient Care in Rad Oncology | 2 |
| RSD 401 | Cross Sectional Anatomy I | 2 |
| RSD 412 | Clinical Med Dosimetry I | 6 |
| RSD 430 | Case Studies in Dosimetry ¹ | 1 |
| RSD 435 | Medical Dosimetry Physics I | 3 |
| RSD 439 | Radiation Protection | 1 |
| RSD 440 | Intro to Radiobiology | 2 |
| RSD 480 | Survey of Medical Imaging | 2 |
| Semester 2 | | |
| RSD 402 | Cross Sec Anatomy II | 2 |
| RSD 413 | Clinical Med Dosimetry II | 6 |
| RSD 415 | Clinical Radiation Oncology | 2 |
| RSD 436 | Medical Dosimetry Physics II | 3 |
| RSD 442 | Quality Assurance & Instrument | 2 |
| RSD 443 | Brachytherapy | 2 |
| RSD 444 | Spec Proced for Radiotherapy | 2 |
| Semester 3 | | |
| RSD 414 | Clinical Med Dosimetry III | 8 |
| Total Credits | | 46 |

¹ Students coming from TJU Radiation Therapy program only

Concentration: Radiation Therapy

| Code | Title | Credits |
|----------------------|---------------------------------------|-----------|
| Semester 1 | | |
| RST 322 | Patient Care in Rad Oncology (hybrid) | 2 |
| RST 401 | Cross Sectional Anatomy I | 2 |
| RST 409 | Rad Therapy Prin & Proc I | 3 |
| RST 409L | Radiation Therapy Lab I | 1 |
| RST 412 | Clinical Rad Therapy I | 6 |
| RST 435 | Radiation Therapy Physics I | 2 |
| RST 439 | Radiation Protection | 1 |
| RST 440 | Intro to Radiobiology | 2 |
| Semester 2 | | |
| RST 402 | Cross Sec Anatomy II | 2 |
| RST 413 | Clinical Rad Therapy II | 6 |
| RST 415 | Clinical Radiation Oncology | 2 |
| RST 416 | Principles of Rad Dosimetry | 2 |
| RST 419 | Rad Therapy Prin & Proc II | 3 |
| RST 436 | Radiation Therapy Physics II | 3 |
| Semester 3 | | |
| RST 414 | Clinical Rad Therapy III | 10 |
| RST 429 | Rad Therapy Prin & Proc III | 2 |
| RST 473 | Rad Therapy Review Seminar | 2 |
| Total Credits | | 51 |

Concentration: Radiography

| Code | Title | Credits |
|----------------------|--------------------------------|-----------|
| Semester 1 | | |
| RSR 321 | Patient Care & Serv in Diag Im | 2 |
| RSR 331 | Radiographic Procedures I | 2 |
| RSR 331L | Radiographic Procedures I Lab | 1 |
| RSR 341 | Radiation Physics & Instrum I | 2 |
| RSR 353 | Radiographic Imaging Princ 1 | 2 |
| RSR 361 | Image Analysis I | 2 |
| RSR 371 | Clinical Radiography I | 4 |
| Semester 2 | | |
| RSR 313 | Radiobiology Health Physics | 2 |
| RSR 332 | Radiographic Procedures II | 2 |
| RSR 342 | Radiography Physics & Instr II | 2 |
| RSR 354 | Radiographic Imaging Princ II | 2 |
| RSR 362 | Image Analysis II | 2 |
| RSR 372 | Clinical Radiography II | 6 |
| Semester 3 | | |
| RSR 333 | Advanced Radiographic Proced | 1 |
| RSR 373 | Clin Radiography III | 8 |
| RSR 412 | Radiographic Pathology I | 2 |
| RSR 414 | Radiography Capstone | 1 |
| RSR 471 | Radiography Review Seminar | 2 |
| Total Credits | | 45 |

Concentration: Vascular Sonography

| Code | Title | Credits |
|----------------------|------------------------------|-----------|
| Semester 1 | | |
| RSV 311 | Cardiovascular Physiology | 2 |
| RSV 321 | Pat Care & Serv in Diag Imag | 2 |
| RSV 335 | Vascular Procedures I | 2 |
| RSV 353 | Vascular Principles I | 2 |
| RSV 400 | Ultrasound Physics I | 2 |
| RSV 401 | Vascular Anatomy | 2 |
| RSV 421 | Clinical Vascular I | 6 |
| Semester 2 | | |
| RSV 336 | Vascular Procedures II | 2 |
| RSV 354 | Vascular Principles II | 2 |
| RSV 403 | Ultrasound Physics II | 2 |
| RSV 422 | Clinical Vascular II | 6 |
| RSV 493 | Spec Topics in Vascular Tech | 2 |
| Semester 3 | | |
| RSV 423 | Clinical Vascular III | 8 |
| RSV 482 | Vascular Review Seminar | 2 |
| Total Credits | | 42 |

Medical Imaging & Radiation Sciences (MS)

Contacts

Program Director: Colleen Dempsey, EdD, RT (R)

Email: Colleen.Dempsey@jefferson.edu
215-503-9191

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/departments-programs/medical-imaging-radiation-sciences/degrees-programs/ms-programs/ms-radiologic-imaging-sciences.html>)

Program Description

The field of Medical Imaging and Radiation Sciences is rapidly growing, and the learning curve never ends. This profession requires highly-skilled and flexible practitioners, as well as proficient, qualified directors, administrators and educators.

Tracks

- Computed Tomography (CT)
- Invasive Cardiovascular Technology (ICVT)

Curriculum: 1 Year, Credits 44-50

Computed Tomography (CT): 44 Credits

| Code | Title | Credits |
|-------------------|----------------|---------|
| Semester I | | |
| RS 510 | RS Research I | 2 |
| RS 520 | RS Research II | 2 |
| RS 690 | Capstone I | 1 |

| Code | Title | Credits |
|----------------------|------------------------------|-----------|
| RSC 500 | CT Physics & Instrumentation | 3 |
| RSC 501 | Course RSC 501 Not Found | 2 |
| RSC 512 | Course RSC 512 Not Found | 4 |
| RSC 531 | CT Procedures I | 3 |
| RSC 533 | Course RSC 533 Not Found | 1 |
| Semester 2 | | |
| RS 691 | Capstone Project II | 1 |
| RSC 502 | Course RSC 502 Not Found | 2 |
| RSC 513 | Course RSC 513 Not Found | 6 |
| RSC 532 | CT Procedures II | 3 |
| RSC 534 | Course RSC 534 Not Found | 1 |
| Semester 3 | | |
| RS 660 | Seminar | 2 |
| RS 692 | Capstone III | 1 |
| RSC 514 | Course RSC 514 Not Found | 8 |
| RSC 773 | Course RSC 773 Not Found | 2 |
| Total Credits | | 44 |

ICVT for Cardiac Sonographer: 49 Credits

| Code | Title | Credits |
|----------------------|-------------------------------|-----------|
| Semester 1 | | |
| RS 510 | RS Research I | 2 |
| RS 520 | RS Research II | 2 |
| RS 690 | Capstone I | 1 |
| RS 531 | Course RS 531 Not Found | 6 |
| RS 538 | Course RS 538 Not Found | 3 |
| RS 541 | Course RS 541 Not Found | 2 |
| RS 557 | Course RS 557 Not Found | 3 |
| Semester 2 | | |
| RS 691 | Capstone Project II | 1 |
| RSI 513 | Radiobiology & Health Physics | 2 |
| RSI 532 | Clinical Invasive II | 6 |
| RSI 539 | Invasive Procedures II | 3 |
| RSI 542 | Radiographic Physics & Inst I | 2 |
| RSI 558 | Invasive Principles II | 3 |
| Semester 3 | | |
| RS 660 | Seminar | 2 |
| RS 692 | Capstone III | 2 |
| RSI 533 | Clinical Invasive III | 8 |
| RSI 583 | Invasive Review Seminar | 2 |
| Total Credits | | 50 |

ICVT for Radiographers: 48 Credits

| Code | Title | Credits |
|-------------------|--------------------------------|---------|
| Semester 1 | | |
| RS 510 | RS Research I | 2 |
| RS 520 | RS Research II | 2 |
| RS 690 | Capstone I | 1 |
| RSI 502 | Noninvasive Test Prin & Proced | 1 |
| RSI 511 | Cardiovascular Physiology | 2 |
| RSI 531 | Clinical Invasive I | 6 |

| Code | Title | Credits |
|----------------------|-------------------------|-----------|
| RSI 538 | Invasive Procedures I | 3 |
| RSI 557 | Invasive Principles I | 3 |
| Semester 2 | | |
| RS 691 | Capstone Project II | 1 |
| RS 512 | Course RS 512 Not Found | 2 |
| RSI 532 | Clinical Invasive II | 6 |
| RS 539 | Course RS 539 Not Found | 3 |
| RS 558 | Course RS 558 Not Found | 3 |
| Semester 3 | | |
| RS 660 | Seminar | 2 |
| RS 692 | Capstone III | 1 |
| RSI 533 | Clinical Invasive III | 8 |
| RSI 583 | Invasive Review Seminar | 2 |
| Total Credits | | 48 |

ICVT for Vascular Sonographers: 50 Credits

| Code | Title | Credits |
|----------------------|--------------------------------|-----------|
| Semester 1 | | |
| RS 510 | RS Research I | 2 |
| RS 520 | RS Research II | 2 |
| RS 690 | Capstone I | 1 |
| RSI 502 | Noninvasive Test Prin & Proced | 1 |
| RSI 531 | Clinical Invasive I | 6 |
| RSI 538 | Invasive Procedures I | 3 |
| RSI 541 | Radiographic physics & inst I | 2 |
| RSI 557 | Invasive Principles I | 3 |
| Semester 2 | | |
| RS 691 | Capstone Project II | 1 |
| RSI 513 | Radiobiology & Health Physics | 2 |
| RSI 532 | Clinical Invasive II | 6 |
| RSI 539 | Invasive Procedures II | 3 |
| RSI 542 | Radiographic Physics & Inst I | 2 |
| RSI 558 | Invasive Principles II | 3 |
| RSI 583 | Invasive Review Seminar | 2 |
| Semester 3 | | |
| RS 660 | Seminar | 2 |
| RS 692 | Capstone III | 1 |
| RSI 533 | Clinical Invasive III | 8 |
| RSI 583 | Invasive Review Seminar | 2 |
| Total Credits | | 52 |

Medical Laboratory Leadership (MS)

Contacts

Program Director: Joy Gould

Email: Joy.Gould@jefferson.edu

Program Description Curriculum: 37 credits

Medical Laboratory Science (MLT to MLS Pathway)

Contacts

Program Director: Valerie Jalicke, MS, MLS(ASCP)CM

Email: Valerie.jalicke@jefferson.edu

Program Description

Professionals in Medical Laboratory Science conduct health screening tests for diabetic and cardiac risk, examine patient specimens for the presence of infectious microorganisms, type and cross-match blood for transfusion, detect specific blood cells to reveal leukemia and measure a patient's response to medications and therapies and develop and manage complex technical systems to assist in performing these tests.

Curriculum: 4 years, 41 credits

- Credits Required for Admission: Up to 80

| Course | Title | Credits |
|---------------------------|--------------------------------|------------|
| First Year | | |
| Fall | | |
| MLSO 323 | Clinical Chemistry I | 2 |
| MLSO 341 | Clinical Hematology I | 2 |
| Credits | | 4 |
| Spring | | |
| MLSO 324 | Clinical Chemistry II | 2 |
| MLSO 343 | Clinical Hematology II | 2 |
| Credits | | 4 |
| Summer | | |
| MLSO 430 | Laboratory Standard & Practice | 3 |
| Credits | | 3 |
| Second Year | | |
| Fall | | |
| MLSO 301 | Molecular Biology | 3 |
| MLSO 312 | Clinical Microbiology I | 2 |
| Credits | | 5 |
| Spring | | |
| MLSO 310 | Intro to Molecular Diagnostics | 1 |
| MLSO 313 | Clinical Microbiology II | 2 |
| Credits | | 3 |
| Third Year | | |
| Fall | | |
| MLSO 331 | Immunology | 2 |
| MLSO 351 | Immunohematology | 2 |
| Credits | | 4 |
| Spring | | |
| MLSO 352 | Immunohematology II | 2 |
| Designated Electives | | 3 |
| Credits | | 5 |
| Summer | | |
| Program Approved Elective | | 3 |
| Credits | | 3 |
| Fourth Year | | |
| Fall | | |
| MLSO 375 | MLS Seminar | 2 |
| MLSO 416 | Comprehensive Exam | 0 |
| Designated Electives | | 2-3 |
| Credits | | 4-5 |

| Course | Title | Credits |
|----------------------|-------------------|--------------|
| Spring | | |
| MLSO 412 | MLS Practicum I | 1 |
| MLSO 422 | MLS Practicum II | 1 |
| MLSO 442 | MLS Practicum III | 1 |
| MLSO 454 | MLS Practicum IV | 1 |
| Credits | | 4 |
| Total Credits | | 39-40 |

- If at least 79 credits are not transferred at admission, students must complete elective coursework to satisfy the degree requirement of 120 credit hours

Curriculum: 4 years, 41 credits

- Credits Required for Admission: Up to 80

If at least 79 credits are not transferred at admission, students must complete elective coursework to satisfy the degree requirement of 120 credit hours.

| Course | Title | Credits |
|----------------------|--------------------------------|--------------|
| First Year | | |
| Fall | | |
| MLSO 301 | Molecular Biology | 3 |
| MLSO 323 | Clinical Chemistry I | 2 |
| MLSO 341 | Clinical Hematology I | 2 |
| Credits | | 7 |
| Spring | | |
| MLSO 310 | Intro to Molecular Diagnostics | 1 |
| MLSO 324 | Clinical Chemistry II | 2 |
| MLSO 343 | Clinical Hematology II | 2 |
| Credits | | 5 |
| Summer | | |
| MLSO 376 | Urinalysis and Body Fluids | 2 |
| MLSO 430 | Laboratory Standard & Practice | 3 |
| Designated Electives | | 3 |
| Credits | | 8 |
| Second Year | | |
| Fall | | |
| MLSO 312 | Clinical Microbiology I | 2 |
| MLSO 331 | Immunology | 2 |
| MLSO 351 | Immunohematology | 2 |
| Credits | | 6 |
| Spring | | |
| MLSO 313 | Clinical Microbiology II | 2 |
| MLSO 352 | Immunohematology II | 2 |
| Designated Electives | | 3 |
| Credits | | 7 |
| Summer | | |
| MLSO 375 | MLS Seminar | 2 |
| MLSO 412 | MLS Practicum I | 1 |
| MLSO 416 | Comprehensive Exam | 0 |
| MLSO 422 | MLS Practicum II | 1 |
| MLSO 442 | MLS Practicum III | 1 |
| MLSO 454 | MLS Practicum IV | 1 |
| Designated Electives | | 2-3 |
| Credits | | 8-9 |
| Total Credits | | 41-42 |

- If at least 79 credits are not transferred at admission, students must complete elective coursework to satisfy the degree requirement of 120 credit hours.

Medical Laboratory Science (BS)

Contacts

Program Director: Valerie Jalicke, MS, MLS(ASCP)CM

Email: Valerie.Jalicke@jefferson.edu

215-503-2792

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/departments-programs/medical-laboratory-biotechnology/degrees-programs/bs-programs/medical-laboratory.html>)

Program Description

Medical laboratory scientists work behind the scenes in laboratories to provide clinicians with test results needed to diagnose, treat, and manage their patients' conditions. Blood, body fluids, and other patient specimens are analyzed using manual methods and state-of-the-art instrumentation to test for conditions such as diabetes, heart disease, infection, anemia, and leukemia.

Curriculum: BS, 2 Years, 66 Credits

| Course | Title | Credits |
|----------------------|--------------------------------|-------------|
| First Year | | |
| Fall | | |
| LS 301 | Molecular Biology | 3 |
| LS 331 | Immunology | 3 |
| MLS 300 | Intro to Medical Lab Science | 1 |
| MLS 312 | Clinical Microbiology I | 4 |
| MLS 323 | Clinical Chemistry I | 3.5 |
| MLS 341 | Clinical Hematology I | 3 |
| MLS 351 | Immunohematology I | 3 |
| Credits | | 20.5 |
| Spring | | |
| LS 310 | Intro to Molecular Diagnostics | 2 |
| MLS 313 | Clinical Microbiology II | 3.5 |
| MLS 343 | Clinical Hematology II | 3 |
| MLS 324 | Clinical Chemistry II | 3 |
| MLS 352 | Immunohematology | 4 |
| MLS 376 | Urinalysis and Body Fluids | 3 |
| Credits | | 18.5 |
| Second Year | | |
| Fall | | |
| MLS 412 | Med Lab Sci Practicum I | 3 |
| MLS 422 | Med Lab Sci Practicum II | 3 |
| Designated Electives | | 6 |
| Credits | | 12 |
| Spring | | |
| LS 430 | Lab Standards & Practices | 3 |
| LS 440 | Current Resrch in Biosciences | 2 |
| MLS 375 | Medical Laboratory Science Sem | 2 |
| MLS 416 | Comprehensive Exam | 0 |
| MLS 442 | Med Lab Sci Practicum III | 3 |
| MLS 454 | Med Lab Sci Practicum IV | 3 |

| Course | Title | Credits |
|----------------------|-------|-----------|
| Designated Electives | | 3 |
| Credits | | 16 |
| Total Credits | | 67 |

Curriculum: BS, 1 Year, 55 Credits

- Credits Required for Admissions: 70

| Course | Title | Credits |
|----------------------|--------------------------------|-------------|
| First Year | | |
| Fall | | |
| LS 301 | Molecular Biology | 3 |
| LS 331 | Immunology | 3 |
| MLS 300 | Intro to Medical Lab Science | 1 |
| MLS 312 | Clinical Microbiology I | 4 |
| MLS 323 | Clinical Chemistry I | 3.5 |
| MLS 341 | Clinical Hematology I | 3 |
| MLS 351 | Immunohematology I | 3 |
| Credits | | 20.5 |
| Spring | | |
| LS 310 | Intro to Molecular Diagnostics | 2 |
| LS 440 | Current Resrch in Biosciences | 2 |
| MLS 313 | Clinical Microbiology II | 3.5 |
| MLS 324 | Clinical Chemistry II | 3 |
| MLS 343 | Clinical Hematology II | 3 |
| MLS 352 | Immunohematology | 4 |
| MLS 376 | Urinalysis and Body Fluids | 3 |
| Credits | | 20.5 |
| Summer | | |
| LS 430 | Lab Standards & Practices | 3 |
| MLS 412 | Med Lab Sci Practicum I | 3 |
| MLS 416 | Comprehensive Exam | 0 |
| MLS 422 | Med Lab Sci Practicum II | 3 |
| MLS 442 | Med Lab Sci Practicum III | 3 |
| MLS 454 | Med Lab Sci Practicum IV | 3 |
| Credits | | 15 |
| Total Credits | | 56 |

Medical Laboratory Sciences (BS/MS)

Contacts

Program Director: Valerie Jalicke, MS, MLS(ASCP)CM

Email: Valerie.jalicke@jefferson.edu

215-503-2792

Curriculum: 2 Years, 71 Credits

- Credits Required for Admission: 82

| Course | Title | Credits |
|----------------------------|------------------------------|---------|
| First Year | | |
| Fall | | |
| Undergraduate Phase | | |
| LS 301 | Molecular Biology | 3 |
| LS 331 | Immunology | 3 |
| MLS 300 | Intro to Medical Lab Science | 1 |
| MLS 312 | Clinical Microbiology I | 4 |
| MLS 323 | Clinical Chemistry I | 3.5 |
| MLS 341 | Clinical Hematology I | 3 |

| Course | Title | Credits |
|----------------------------|---|-------------|
| MLS 351 | Immunohematology I | 3 |
| Credits | | 20.5 |
| Spring | | |
| LS 310 | Intro to Molecular Diagnostics | 2 |
| LS 540 | Current Resrch in Biosciences | 3 |
| MLS 313 | Clinical Microbiology II | 3.5 |
| MLS 324 | Clinical Chemistry II | 3 |
| MLS 343 | Clinical Hematology II | 3 |
| MLS 352 | Immunohematology | 4 |
| MLS 376 | Urinalysis and Body Fluids | 3 |
| Credits | | 21.5 |
| Second Year | | |
| Fall | | |
| Graduate Phase | | |
| LS 603 | Research Design | 2 |
| LS 640 | Methods in Bioscience Edu | 3 |
| MLS 812 | Med Lab Sci Practicum I | 3 |
| MLS 813 | Med Lab Sci Practicum II | 3 |
| Program-Approved Electives | | 3 |
| Credits | | 14 |
| Spring | | |
| LS 610 | Reg & Fis Issues in Lab. Mgmt | 3 |
| LS 803 | Contemporary Topics Research ² | 2 |
| MLS 575 | Medical Laboratory Science Sem | 2 |
| MLS 814 | Med Lab Sci Practicum III | 3 |
| MLS 815 | Med Lab Sci Practicum IV | 3 |
| MLS 816 | Comprehensive Exam | 0 |
| Program-Approved Elective | | 3 |
| Credits | | 16 |
| Total Credits | | 72 |

Curriculum: 1 Year, 57 Credits

- Advanced MS

| Course | Title | Credits |
|------------------------------|---|-------------|
| First Year | | |
| Fall | | |
| LS 501 | Molecular Biology | 3 |
| LS 531 | Immunology (CT program only) ¹ | 3 |
| LS 603 | Research Design | 2 |
| MLS 500 | Intro to Medical Lab Science | 1 |
| MLS 512 | Clinical Microbiology I | 4 |
| MLS 523 | Clinical Chemistry I | 3.5 |
| MLS 541 | Clinical Hematology I | 3 |
| MLS 551 | Immunohematology I | 3 |
| Credits | | 22.5 |
| Spring | | |
| LS 610 | Reg & Fis Issues in Lab. Mgmt | 3 |
| LS 613 | Pathology | 2 |
| Select one of the following: | | 1-2 |
| LS 803 | Contemporary Topics Research ² | |
| LS 805 | Experimental Research II (requires special approval) ² | |
| LS 814 | Practicum III | 3 |
| Select one of the following: | | 3-4 |
| LS 815 | Practicum IV | |
| LS 644 | Laboratory Ed and Instruction ³ | |
| LS 698 | Special Topics in Lab Instruct | |

| Course | Title | Credits |
|----------------------------|-------|------------------|
| Program-Approved Electives | | 2-4 |
| Credits | | 14-18 |
| Total Credits | | 36.5-40.5 |

- ¹ To meet entry-level competency requirements for immunology credits, students entering as certified cytotechnology graduates who have not completed three credits in immunology are required to enroll in LS 531 Immunology. Certified cytotechnology graduates who have completed three credits of immunology may enroll in a program-approved elective.
- ² To meet the research requirement, students may take a classroom literature review-based course (LS 803 Contemporary Topics Research) or, under special circumstances, engage in a two-semester wet bench research project with a selected PI (LS 804 Experimental Research I and LS 805 Experimental Research II). Students must meet with their faculty advisor and/or program director to determine which option best meets their educational goals. LS 804 Experimental Research I and LS 805 Experimental Research II are not a substitute for nor may run concurrently with practica courses.
- ³ Program approval and minimum course grade requirements must be met to register for LS 644 Laboratory Ed and Instruction.

Curriculum: 2 Years, 48-51 Credits¹

- Advanced MS, Part-Time

| Course | Title | Credits |
|---------------------------------|--|--------------|
| First Year | | |
| Fall | | |
| LS 603 | Research Design | 2 |
| LS 640 | Methods in Bioscience Edu | 3 |
| Select one of the following: | | 3-4 |
| LS 812 | Practicum I | |
| LS 644 | Laboratory Ed and Instruction | |
| Administration, and Instruction | | |
| Program-Approved Electives | | 3 |
| Credits | | 11-12 |
| Spring | | |
| LS 813 | Practicum II | 3 |
| LS 644 | Laboratory Ed and Instruction | 3-4 |
| or LS 698 | or Special Topics in Lab Instruct | |
| Credits | | 6-7 |
| Summer | | |
| LS 610 | Reg & Fis Issues in Lab. Mgmt | 3 |
| LS 814 | Practicum III | 3 |
| Credits | | 6 |
| Second Year | | |
| Fall | | |
| Graduate Phase | | |
| LS 504 | Biochemistry (BT & MLS program only) | 3 |
| LS 531 | Immunology (CT program only) ² | 3 |
| LS 804 | Experimental Research I (requires special approval) ² | 1 |
| Program-Approved Electives | | 3 |
| Credits | | 10 |
| Spring | | |
| LS 613 | Pathology | 3 |
| Select one of the following: | | 1-2 |
| LS 803 | Contemporary Topics Research ³ | |
| LS 805 | Experimental Research II (approval) | |

| Course | Title | Credits |
|----------------------|---|--------------|
| LS 815 or LS 698 | Practicum IV or Special Topics in Lab Instruct | 3-4 |
| Credits | | 7-9 |
| Total Credits | | 40-44 |

¹ To meet the research requirement, students may take a classroom literature review-based course (LS 803) or, under special circumstances, engage in a two-semester wet bench research project with a selected PI (LS 804 and LS 805). Students must meet with their faculty advisor and/or program director to determine which option best meets their educational goals. LS 804 and LS 805 are not a substitute for nor may run concurrently with practica courses.

Medical Laboratory Sciences (MS)

Contacts

Program Director: Valerie Jalicke, MS, MLS(ASCP)CM

Email: Valerie.Jalicke@jefferson.edu
215-503-2792

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/departments-programs/medical-laboratory-biotechnology/degrees-programs/ms-programs/medical-laboratory.html>)

Curriculum: 2 Years, 59 Credits

| Course | Title | Credits |
|------------------------------|--|-------------|
| First Year | | |
| Fall | | |
| LS 531 | Immunology | 3 |
| MLS 500 | Intro to Medical Lab Science | 1 |
| MLS 512 | Clinical Microbiology I | 3.5 |
| MLS 523 | Clinical Chemistry I | 3 |
| MLS 541 | Clinical Hematology I | 3 |
| MLS0 551 | Course MLS0 551 Not Found | 3 |
| Credits | | 16.5 |
| Spring | | |
| MLS 513 | Clinical Microbiology II | 3.5 |
| MLS 524 | Clinical Chemistry II | 3 |
| MLS 543 | Clinical Hematology II | 3 |
| MLS 552 | Immunohematology II | 3 |
| MLS 576 | Urinalysis and Body Fluids | 3 |
| Credits | | 15.5 |
| Second Year | | |
| Fall | | |
| LS 501 | Molecular Biology | 3 |
| LS 603 | Research Design | 2 |
| LS 804 | Experimental Research I (approval) ¹ | 1 |
| MLS 812 | Med Lab Sci Practicum I | 3 |
| MLS 813 | Med Lab Sci Practicum II | 3 |
| Credits | | 12 |
| Spring | | |
| LS 510 | Intro to Molecular Diagnostics | 2 |
| LS 610 | Reg & Fis Issues in Lab. Mgmt | 3 |
| Select one of the following: | | 1-2 |
| LS 803 | Contemporary Topics Research | |
| LS 805 | Experimental Research II (approval) ¹ | |

| Course | Title | Credits |
|----------------------|--------------------------------|--------------|
| MLS 575 | Medical Laboratory Science Sem | 2 |
| MLS 814 | Med Lab Sci Practicum III | 3 |
| MLS 815 | Med Lab Sci Practicum IV | 3 |
| MLS 816 | Comprehensive Exam | 0 |
| Credits | | 14-15 |
| Total Credits | | 58-59 |

Curriculum: 1 Year, 57 Credits

| Course | Title | Credits |
|----------------------|--------------------------------|-------------|
| First Year | | |
| Fall | | |
| LS 501 | Molecular Biology | 3 |
| LS 531 | Immunology | 3 |
| LS 603 | Research Design | 2 |
| MLS 500 | Intro to Medical Lab Science | 1 |
| MLS 512 | Clinical Microbiology I | 3.5 |
| MLS 523 | Clinical Chemistry I | 3 |
| MLS 541 | Clinical Hematology I | 3 |
| MLS 551 | Immunohematology I | 3 |
| Credits | | 21.5 |
| Spring | | |
| LS 510 | Intro to Molecular Diagnostics | 2 |
| MLS 513 | Clinical Microbiology II | 3.5 |
| MLS 524 | Clinical Chemistry II | 3 |
| MLS 543 | Clinical Hematology II | 3 |
| MLS 552 | Immunohematology II | 3 |
| MLS 576 | Urinalysis and Body Fluids | 3 |
| Credits | | 17.5 |
| Summer | | |
| LS 610 | Reg & Fis Issues in Lab. Mgmt | 3 |
| LS 803 | Contemporary Topics Research | 2 |
| MLS 812 | Med Lab Sci Practicum I | 3 |
| MLS 813 | Med Lab Sci Practicum II | 3 |
| MLS 814 | Med Lab Sci Practicum III | 3 |
| MLS 815 | Med Lab Sci Practicum IV | 3 |
| MLS 816 | Comprehensive Exam | 0 |
| Credits | | 17 |
| Total Credits | | 56 |

- To meet the research requirement, students may take a classroom literature review-based course (LS 803) or, under special circumstances, engage in a two-semester wet bench research project with a selected PI (LS 804 and LS 805). Students must meet with their faculty advisor and/or program director to determine which option best meets their educational goals. LS 804 and LS 805 are not a substitute for nor may run concurrently with practica courses.

Curriculum: 2 Year, 30 Credits

- Advanced MS, Part-time

| Course | Title | Credits |
|----------------------|---------------------------|----------|
| First Year | | |
| Fall | | |
| LS 603 | Research Design | 2 |
| LS 640 | Methods in Bioscience Edu | 3 |
| Designated Electives | | 3 |
| Credits | | 8 |

| Course | Title | Credits |
|--------------------------------------|---|--------------|
| Spring | | |
| Designated Electives | | 4-8 |
| Credits | | 4-8 |
| Summer | | |
| LS 610 | Reg & Fis Issues in Lab. Mgmt | 3 |
| Designated Electives | | 3 |
| Credits | | 6 |
| Second Year | | |
| Fall | | |
| LS 504 | Biochemistry | 3 |
| LS 531 | Immunology (CT program only) | 3 |
| LS 804 | Experimental Research I (Requires Approval) | 1 |
| Designated Electives | | 3 |
| Credits | | 10 |
| Spring | | |
| LS 613 | Pathology | 2 |
| Designated Electives | | 3-4 |
| Select One Below (Requires Approval) | | |
| LS 803 | Contemporary Topics Research | 2 |
| LS 805 | Experimental Research II | 1 |
| Credits | | 8-9 |
| Total Credits | | 36-41 |

- To meet entry-level competency requirements for immunology credits, students entering as certified cytotechnology graduates who have not completed three credits in immunology are required to enroll in LS 531 Immunology. Certified cytotechnology graduates who have completed three credits of immunology may enroll in a program-approved elective.
- To meet the research requirement, students may take a classroom literature review-based course (LS 803) or, under special circumstances, engage in a two-semester wet bench research project with a selected PI (LS 804 and LS 805). Students must meet with their faculty advisor and/or program director to determine which option best meets their educational goals. LS 804 and LS 805 are not a substitute for nor may run concurrently with practica courses.

Curriculum: 1 Year, 30 credits

- Advanced MS

| Course | Title | Credits |
|----------------------|---|--------------|
| First Year | | |
| Fall | | |
| LS 504 | Biochemistry (MLS program only) | 3 |
| LS 531 | Immunology (CT program only) | 3 |
| LS 603 | Research Design | 2 |
| LS 804 | Experimental Research I (Requires Approval) | 1 |
| Designated Electives | | 8-9 |
| Credits | | 17-18 |
| Spring | | |
| LS 610 | Reg & Fis Issues in Lab. Mgmt | 3 |
| LS 613 | Pathology | 2 |
| Designated Electives | | 8 |
| Select One Below | | |
| LS 803 | Contemporary Topics Research | 2 |

| Course | Title | Credits |
|----------------------|--------------------------|--------------|
| LS 805 | Experimental Research II | 1 |
| Credits | | 16 |
| Total Credits | | 33-34 |

- To meet entry-level competency requirements for immunology credits, students entering as certified cytotechnology graduates who have not completed three credits in immunology are required to enroll in LS 531 Immunology. Certified cytotechnology graduates who have completed three credits of immunology may enroll in a program-approved elective.
- To meet the research requirement, students may take a classroom literature review-based course (LS 803) or, under special circumstances, engage in a two-semester wet bench research project with a selected PI (LS 804 and LS 805). Students must meet with their faculty advisor and/or program director to determine which option best meets their educational goals. LS 804 and LS 805 are not a substitute for nor may run concurrently with practica courses.

Midwifery (Advanced-Practice Certificate)

Contacts

Program Director: Barbara Reale, DNP, CNM, FACNM
Email: Barbara.Reale@jefferson.edu
 215-503-4995

Program Description

The Advanced-Practice Certificate in midwifery is a distance education program with required on-campus intensives for aspiring midwives who already hold a graduate degree in a health-related field, such as an MSN, DNP, or MPH. The curriculum can be completed in a 2-year accelerated format or 3-year format. In either format, the final four semesters (clinical rotation portion) are full-time. This accredited program leads to eligibility to sit for the American Midwifery Certification Board exam. Graduates are eligible to earn certification as either a Certified Nurse-Midwife or Certified Midwife. Applicants may be eligible for the Advanced Placement Option.

Curriculum: 2-3 Years, 50 Credits

- The courses and sequenc are variable, see Program Director

Midwifery (DM)

Contacts

Program Director: Barbara J. Reale, DNP, CNM, FACNM
Email: Barbara.reale@jefferson.edu
Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/departments-programs/midwifery-womens-health/doctor-midwifery.html>)

Program Description

The professional Doctor of Midwifery degree is the first doctoral program in the United States designed to develop and enhance leadership skills specifically for midwives. Students will pursue scholarship and research to advance clinical practice, education, policy,

or administration. In addition to coursework, all doctoral students complete an Advances in Midwifery (AIM) project in an interest area they develop with close mentorship from program faculty.

Curriculum: 35 Credits

| Course | Title | Credits |
|----------------------|------------------------------------|-------------|
| First Year | | |
| Fall | | |
| MIDW 501 | Orientation Residency | 1 |
| MIDW 810 | Epidemiology for Mid & Womens Hlth | 3 |
| MIDW 805 | Organizational Change | 3 |
| Credits | | 7 |
| Spring | | |
| MIDW 811 | Leadership in Midwifery Health | 2 |
| MIDW 712 | Introduction to Health Policy | 3 |
| Credits | | 5 |
| Summer | | |
| MIDW 813 | Case Studies in Mid Clin Adm | 2 |
| MIDW 807 | Data Driven Mid&Womens Hlthcre | 1.5 |
| Credits | | 3.5 |
| Second Year | | |
| Fall | | |
| MIDW 800 | Curr Issues in Mid & Women Hlt | 2 |
| MIDW 821 | AIM Prj Desgn & Methods | 2 |
| Credits | | 4 |
| Spring | | |
| MIDW 812 | Professional Communication | 3 |
| MIDW 822 | AIM Operations Workshop | 3 |
| Credits | | 6 |
| Summer | | |
| MIDW 815 | Grant Writing | 3 |
| ELECTIVE | | |
| MIDW 826 | Course MIDW 826 Not Found | |
| Credits | | 3 |
| Third Year | | |
| Fall | | |
| MIDW 823 | AIM Implementation Workshop | 3 |
| Credits | | 3 |
| Spring | | |
| MIDW 825 | AIM Dissemination Workshop | 1 |
| Credits | | 1 |
| Total Credits | | 32.5 |

Midwifery (MS)

Contacts

Program Director: Barbara Reale, DNP, CNM, FACNM

Email: Barbara.Reale@jefferson.edu

215-503-4995

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/departments-programs/midwifery-womens-health/ms-midwife.html>)

Program Description

Our Mission is to promote midwifery through education, practice, advocacy, and research to improve lives. Midwives have a unique approach to healthcare. We partner with the individuals we serve to provide empowering reproductive, sexual primary healthcare with a particular focus on childbirth,

early parenthood and the newborn. Students are grounded by the Hallmarks of Midwifery (https://www.midwife.org/acnm/files/acnmlibrarydata/uploadfilename/000000000050/ACNMCoreCompetenciesMar2020_final.pdf) and prepared to assume responsibility and accountability for their practice consistent with the published Core Competencies (https://www.midwife.org/acnm/files/acnmlibrarydata/uploadfilename/000000000050/ACNMCoreCompetenciesMar2020_final.pdf). The MS in Midwifery is a distance education program with required on-campus intensives. The curriculum can be completed in a year format which accommodates work and life! The final four semesters intensive clinical education. This accredited program leads to eligibility for the American Midwifery Certification Board exam. Graduates are eligible to earn certification as either a Certified Nurse-Midwife (CNM) or Certified Midwife (CM). Midwives, APNs, PA's and other primary health care providers seeking the CM or CNM credential, may be eligible for the Advanced Placement Option. Students entering the MS in Midwifery via the accelerated BSN + MS Midwifery dual admission, enter the MS program with 6 graduate credits earned.

Curriculum: 62 Credits

| Course | Title | Credits |
|--------------------|--------------------------------|------------|
| First Year | | |
| Pre-Fall | | |
| MIDW 635 | Basic Skills in Health Care | 3 |
| MIDW 636 | Environments of Health Care | 3 |
| CM Pathway Only | | |
| Credits | | 6 |
| Fall | | |
| ON-CAMPUS | | |
| MIDW 501 | Orientation Residency | 1 |
| ON-LINE | | |
| MIDW 730 | Theoretical Foundatns of Midw | 3 |
| MIDW 643 | Adv Physiol & Patho Prim Care | 4 |
| Credits | | 8 |
| Spring | | |
| MIDW 660 | Clinic Basc Skill for Midw Pra | 2 |
| MIDW 699 | Adv. Health Assessment | 3 |
| MIDW 731 | Evidence-Based Care:Eval Rsch | 3 |
| Credits | | 8 |
| Summer | | |
| MIDW 645 | Reproductive & Sexual Hlthcare | 4 |
| MIDW 638 | Advanced Pharmacology I | 2.5 |
| Credits | | 6.5 |
| Second Year | | |
| Fall | | |
| MIDW 610 | Antepartum Care | 4 |
| MIDW 612 | Postpartum/Newborn Care | 2.5 |
| Credits | | 6.5 |
| Spring | | |
| MIDW 611 | Intrapartum Care | 4 |
| MIDW 644 | Advanced Pharmacology II | 1.5 |
| MIDW 712 | Introduction to Health Policy | 3 |
| Credits | | 8.5 |
| Summer | | |
| ON-CAMPUS | | |
| MIDW 641 | Prep for Office Based Pract. | 1 |
| ON-LINE | | |
| MIDW 613 | Embryology and Genetics | 1 |
| MIDW 631 | Midw Care/AmbulatorySettings I | 2 |
| Credits | | 4 |

| Course | Title | Credits |
|----------------------|--------------------------------|------------|
| Third Year | | |
| Fall | | |
| MIDW 619 | Adv Perinatal Pathophysiology | 4 |
| MIDW 632 | MidwCare/AmbulatorySettings II | 3 |
| Credits | | 7 |
| Spring | | |
| ON-CAMPUS | | |
| MIDW 640 | Prep for Full Scope Practice | 1 |
| ON-LINE | | |
| MIDW 642 | Professional Issues | 3 |
| MIDW 633 | Clin.III Full Scop Midw Care I | 4 |
| Credits | | 8 |
| Summer | | |
| MIDW 634 | Clin.IV Full Scope Midw Care 2 | 5 |
| MIDW 646 | Midwifery Nexus Project | 1.5 |
| Credits | | 6.5 |
| Total Credits | | 69 |

-
- Pre-fall courses MIDW.635, MIDW.636 and Semester 3 course MIDW.660 are for CM pathway students only.

Midwifery (MS) Completion Program

Contacts

Program Director: Barbara J. Reale, DNP, CNM, FACNM
Email: Barbara.reale@jefferson.edu

Program Description

The MS in Midwife Completion program allows the practicing midwife, Board Certified by the AMCB to validate and expand the professional competencies and skills needed for today's health care environment. We make it convenient to earn your graduate degree. The MS completion program also allows students who are completing their basic midwifery education in an academic medical center, to earn an MS through Jefferson.

| Code | Title | Credits |
|----------------------|-------------------------------|---------|
| MIDW 730 | Theoretical Foundatns of Midw | 3 |
| MIDW 731 | Evidence-Based Care:Eval Rsch | 3 |
| MIDW 712 | Introduction to Health Policy | 3 |
| MIDW 7XX OR Elective | | 3 |

Midwifery (MS/DM)

Contacts

Program Director: Barbara Reale, DNP, CNM, FACNM
Email: Barbara.Reale@jefferson.edu
215-503-4995

Program Description

This program allows assured admission to the doctoral program for candidates who apply for dual admission, successfully complete the MS courses, and achieve certification by the AMCB. Students can take doctoral level courses during the MS in order to complete the MS+DM

with less credits and in less time than if they were to complete each individual program sequentially.

Curriculum: 5 years , 92 Credits

| Course | Title | Credits |
|-----------------------|--------------------------------|-------------|
| First Year | | |
| Pre-Fall | | |
| MIDW 635 | Basic Skills in Health Care | 3 |
| MIDW 636 | Environments of Health Care | 3 |
| Credits | | 6 |
| Fall | | |
| MIDW 501 | Orientation Residency | 1 |
| MIDW 643 | Adv Physiol & Patho Prim Care | 4 |
| MIDW 730 | Theoretical Foundatns of Midw | 3 |
| Credits | | 8 |
| Spring | | |
| MIDW 699 | Adv. Health Assessment | 3 |
| MIDW 731 | Evidence-Based Care:Eval Rsch | 3 |
| MIDW 805 | Organizational Change | 3 |
| Credits | | 9 |
| Summer | | |
| MIDW 645 | Reproductive & Sexual Hlthcare | 4 |
| MIDW 638 | Advanced Pharmacology I | 2.5 |
| CM PATHWAY | | |
| MIDW 660 | Clinic Basc Skill for Midw Pra | 2 |
| MIDW 813 | Case Studies in Mid Clin Adm | 2 |
| Credits | | 10.5 |
| Second Year | | |
| Fall | | |
| MIDW 610 | Antepartum Care | 4 |
| MIDW 612 | Postpartum/Newborn Care | 2.5 |
| MIDW 810 | Epidemio for Mid & Womens Hlth | 3 |
| Credits | | 9.5 |
| Spring | | |
| MIDW 611 | Intrapartum Care | 4 |
| MIDW 644 | Advanced Pharmacology II | 1.5 |
| MIDW 712 | Introduction to Health Policy | 3 |
| Credits | | 8.5 |
| Summer | | |
| MIDW 613 | Embryology and Genetics | 1 |
| MIDW 631 | Midw Care/AmbulatorySettings I | 2 |
| MIDW 641 | Prep for Office Based Pract. | 1 |
| Credits | | 4 |
| Third Year | | |
| Fall | | |
| MIDW 619 | Adv Perinatal Pathophysiology | 4 |
| MIDW 632 | MidwCare/AmbulatorySettings II | 3 |
| MIDW 811 | Leadership in Midwifery Health | 2 |
| Credits | | 9 |
| Spring | | |
| MIDW 633 | Clin.III Full Scop Midw Care I | 4 |
| MIDW 640 | Prep for Full Scope Practice | 1 |
| MIDW 642 | Professional Issues | 3 |
| Credits | | 8 |
| Summer | | |
| MIDW 634 | Clin.IV Full Scope Midw Care 2 | 5 |
| MIDW 646 | Midwifery Nexus Project | 1.5 |
| MIDW 807 | Data Driven Mid&Womens Hlthcre | 1.5 |
| Credits | | 8 |
| MUST PASS AMCB BOARDS | | |
| Credits | | 8 |

| Course | Title | Credits |
|----------------------|--------------------------------|--------------|
| Fourth Year | | |
| Fall | | |
| MIDW 821 | AIM Prj Desgn & Methods | 2 |
| MIDW 800 | Curr Issues in Mid & Women Hlt | 2 |
| Credits | | 4 |
| Spring | | |
| MIDW 812 | Professional Communication | 3 |
| MIDW 822 | AIM Operations Workshop | 3 |
| Credits | | 6 |
| Summer | | |
| MIDW 815 | Grant Writing | 3 |
| Elective | | |
| MIDW 826 | Course MIDW 826 Not Found | 3 |
| Credits | | 3 |
| Fifth Year | | |
| Fall | | |
| MIDW 823 | AIM Implementation Workshop | 3 |
| Credits | | 3 |
| Spring | | |
| MIDW 824 | AIM Analysis Workshop | 3 |
| MIDW 825 | AIM Dissemination Workshop | 1 |
| Credits | | 4 |
| Total Credits | | 100.5 |

Midwifery (Re-entry to Practice Process)

Contacts

Program Director: Barbara Reale, DNP, CNM, FACNM
Email: Barbara.Reale@jefferson.edu
 215-503-4995

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/departments-programs/midwifery-womens-health/refresher-process.html>)

Program Description

The Midwifery Re-entry to Practice Process offers midwives holding national certification from the American Midwifery Certification Board a non-degree, post-professional mechanism to meet the re-entry to practice guidelines published by the American College of Nurse-Midwives. The program of study is individualized for each midwife based on prior work experience and length of clinical practice. Students independently review areas of midwifery practice followed by examinations to demonstrate current knowledge base and sound clinical reasoning. Students may also pursue a supervised clinical practicum to demonstrate current clinical judgement and skill.

Curriculum

Once accepted to complete a refresher process, refresher midwives enroll at the Midwifery Institute at Jefferson as non-matriculated students. Course of study is determined after review of admission documents and an advisory meeting with the Program Director. When students begin their studies, they are assigned a faculty contact available to them throughout their refresher process.

Molecular Biology (Graduate Certificate)

Contacts

Program Director: Valerie Jalicke, MS, MLS(ASCP)CM

Email: Valerie.Lanzetta@jefferson.edu

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/departments-programs/medical-laboratory-biotechnology/degrees-programs/graduate-certificates/molecular-biology.html>)

Program Description

- Online & On-Campus option

Molecular biologists use a wide variety of techniques to prepare specimens for diagnosing genetic diseases, identifying infectious agents and paternity testing. These professionals are experts in tests and methods that are increasingly common in clinical diagnostic settings and in research and forensic laboratories. These methods include:

- DNA/RNA extraction
- Southern blot
- Western blot
- Gene amplification
- Gene sequencing

On-Campus

- Curriculum: 15 Credits

| Code | Title | Credits |
|----------------------|--------------------------------|-----------|
| BT 603 | Human Genetics | 3 |
| BT 606 | Intro to Bioinformatics | 2 |
| BT 610 | Molecular Diagnostic Technique | 4 |
| BT 812 | Biotechnology Practicum I | 3 |
| LS 610 | Reg & Fis Issues in Lab. Mgmt | 3 |
| Total Credits | | 15 |

Online

- Curriculum: 11 Credits

| Code | Title | Credits |
|----------------------|--------------------------------|-----------|
| MLSO 603 | Human Genetics | 3 |
| MLSO 611 | Molecular Diagnostic Technique | 2 |
| MLSO 606 | Bioinformatics | 2 |
| MLSO 610 | Reg & Fiscal Issues Lab Mgmt | 3 |
| MLSO 812 | Med Lab Sci Comp - Chemistry | 1 |
| Total Credits | | 11 |

Nutrition & Dietetic Practice (MS)

Contacts

Program Director: Kati Fosselius, MS, RDN, LDN

Email: Kati.Fosselius@Jefferson.edu

215-503-9824

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/departments-programs/nutritional-sciences/nutrition-dietetic-practice.html>)

Program Description

The MS in Nutrition & Dietetic program is designed to help meet the growing demand for professional Registered Dietitian Nutritionists (RDNs). It prepares highly motivated students with an interest in nutrition and dietetics to sit for the Commission on Dietetic Registration national Registration Examination for Dietitians upon graduation.

A registered dietitian nutritionist (RDN), also known as a registered dietitian (RD), is a credentialed healthcare professional who applies evidence-based information about nutrition and diet to contribute to the health and wellness of individuals, groups, and communities. RDNs work in a variety of sectors including healthcare, public health and other community agencies, commercial industry, professional and collegiate athletics, schools and colleges, corporate wellness, government, research, and private practice. The profession of dietetics is both an art and a science; RDNs apply their knowledge of nutrition science in the context of individualized needs, priorities, and preferences in order to address the goals of their clients, patients, or other constituents.

The MS/RDN program curriculum adheres to ACEND accreditation standards, and through the didactic (classroom) and supervised experiential learning (SEL) courses students are able to demonstrate all required competencies and are assessed according to relevant performance indicators. Students can complete the MS/RDN program in 19 months or five consecutive semesters.

Learning Goals/Outcomes

- Apply foundational sciences to food and nutrition knowledge to meet the needs of individuals, groups, and organizations.
- Apply and integrate client/patient-centered principles and competent nutrition and dietetics practice to ensure positive outcomes.
- Apply food systems principles and management skills to ensure safe and efficient delivery of food and water.
- Apply community and population nutrition health theories when providing support to community or population nutrition programs.
- Demonstrate leadership, business and management principles to guide practice and achieve operational goals.
- Integrate evidence-informed practice, research principles and critical thinking into practice.
- Demonstrate professional behaviors and effective communication in all nutrition and dietetics interactions.

Curriculum: 2 Years, 54 Credits

| Course | Title | Credits |
|-------------------|--------------------------------|---------|
| First Year | | |
| RDN 537 | Cul Nutr,Func Foods,&Diet Plan | 3 |
| RDN 531 | Integ Nutr Acr the Life Cycle | 3 |
| RDN 511 | Nutritional Biochem & Physio | 3 |
| RDN 535 | Food Science & Safety | 3 |
| RDN 571 | Medical Nutrition Therapy I | 3 |
| RDN 661 | Management in Nutrition | 3 |
| RDN 612 | Nutr Comm, Edu, & Leadership | 3 |
| SCJU 631 | Soc Jus Sem: Food,Weight&Hlth | 1 |

| Course | Title | Credits |
|----------------------|--------------------------------|-----------|
| RDN 712 | SEL-Nutr Comm, Edu, & Lead Exp | 1 |
| RDN 762 | SEL-Food Servic & Culinary Exp | 1 |
| RDN 671 | Medical Nutrition Therapy II | 3 |
| RDN 614 | Nutrition Counseling | 3 |
| RDN 622 | Global & Public Hlth Nutrition | 3 |
| SCJU 632 | Soc Jus Sem: Interprof Perspec | 0.5 |
| RDN 771 | SEL-Intro to Nutr Therapy Exp | 1 |
| RDN 761 | SEL-Nutrition Management Exp | 1.5 |
| Credits | | 36 |
| Second Year | | |
| SCJU 633 | Soc Jus Sem: Syst Barr & Chal | 1 |
| SCJU 634 | Soc Jus Sem: Analysis&Advocacy | 1 |
| RDN 665 | Sustainable Nutrition Practice | 1 |
| RDN 675L | Nutrition Support (lab) | 0.5 |
| RDN 681 | Nutrition Research | 3 |
| RDN 714 | SEL-Nutrition Counseling Exp | 1.5 |
| RDN 772 | SEL-Clinical Experience I | 3 |
| RDN 692 | Capstone | 1 |
| RDN 722 | SEL-Public Nutr Experience | 1 |
| RDN 773 | SEL-Clinical Experience 2 | 3 |
| RDN 765 | SEL-Sustainable Nutrition Exp | 0.5 |
| RDN 782 | SEL-Individualized Profess Exp | 1.5 |
| Credits | | 18 |
| Total Credits | | 54 |

Physician Assistant Studies (MS) & Health Sciences (DHSc)

Contacts

Program Director: Kirby Wycoff, PsyD, EdM, MPH

Email: kirby.wycoff@jefferson.edu

Program Description

The Physician Assistant – Doctor of Health Science (MS/DHSc) dual degree program prepares students with the education and training to become expert clinicians and to advance into leadership positions in the increasingly inter-professional environment of healthcare.

Learning Goals/Outcomes

The DHSc program will enable students to deepen their knowledge in selected domains of clinical leadership and health professions teaching and learning, as well as leverage that knowledge in evidence-based practice. Didactic courses provide deep immersion in a broad array of emerging areas in the health professions. Doctoral project courses deliver experiential learning in defining the leading edge of an area of health care, investigating the basis of new challenges, and developing potential solutions. This combination of knowledge and skill will prepare DHSc graduates to become valuable problem solvers wherever their careers may lead.

In addition to acquiring all of the learning outcomes related to the Masters of Science in Physician Assistant Studies (insert hyperlink to MSPAS page) the dual degree students will also The DHSc program will enable students to deepen their knowledge in selected domains of clinical leadership and health professions teaching and learning, as well as leverage that knowledge in evidence-based practice. Didactic courses provide deep immersion in a broad array of emerging areas in the health professions. Doctoral project courses deliver experiential learning

in defining the leading edge of an area of health care, investigating the basis of new challenges, and developing potential solutions. This combination of knowledge and skill will prepare MSPAS-DHSc graduates to become valuable problem solvers wherever their careers may lead.

Curriculum: 43 credits

| Course | Title | Credits |
|--|--------------------------------|---------|
| Core Courses: Required | | |
| HPS 600 | Fundamentals Applied Biostats | 3 |
| HPS 601 | Appl Hlth Rsrch Design&Methods | 3 |
| HPS 602 | Responsible Conduct Research | 1 |
| HPS 603 | Health Systems Sciences | 2 |
| HPS 604 | Scholarly Writing Foundations | 2 |
| Doctoral Project Coures: Required | | |
| HPS 701 | Doctoral Project Foundation | 2 |
| HPS 702 | Doctoral Project Strategy | 2 |
| HPS 703 | Doctoral Project Execution | 2 |
| HPS 704 | Course HPS 704 Not Found | |
| Elektivs: select 12 credits from DHSc curriculum not previously taken | | |
| Physician Assistant Leadership Track Courses: 12 credits required | | |
| HPS 620 | Interprof Edu Collab Prac Hlth | 3 |
| MIDW 712 | Introduction to Health Policy | 3 |
| MIDW 805 | Organizational Change | 3 |
| HPE 520 | Sim for Health Prof Educ | 3 |
| NU 704 | Phil, Found, Meth for E-B Prac | 3 |

Curriculum: 102 credits

| Course | Title | Credits |
|-------------------|--------------------------------|-------------|
| First Year | | |
| Pre-Fall | | |
| Didactic Year | | |
| PAST 500 | Advanced Human Anatomy | 5 |
| PAST 510 | Introduction to Clinical Asses | 1.5 |
| PAST 520 | Intro to Professional Practice | 1 |
| PAST 522 | Legal & Ethical Aspects of Med | 1 |
| PAST 523 | Evidence Bsd Med & Pop Hlth | 1 |
| Credits | | 9.5 |
| Fall | | |
| PAST 511 | Physical Diagnosis I | 1 |
| PAST 530 | Clinical Medicine I | 5 |
| PAST 540 | Clinical Skills I | 1.5 |
| PAST 550 | Pharm & Clinic Therapeutics I | 3 |
| PAST 560 | Physiology & Pathophysiology I | 2.5 |
| PAST 570 | Behavioral Science | 2 |
| PAST 581 | Health Promotions&Disease Prev | 1 |
| Credits | | 16 |
| Spring | | |
| PAST 512 | Physical Diagnosis II | 1 |
| PAST 533 | Clinical Medicine II | 3 |
| PAST 534 | Clinical Medicine III | 4 |
| PAST 541 | Clinical Skills II | 3 |
| PAST 551 | Pharm & Clinic Therapeutics II | 2 |
| PAST 561 | Physiology & Pathophys II | 2.5 |
| HQS 500 | Intro Healthcare Qual & Safety | 3 |
| Credits | | 18.5 |

| Course | Title | Credits |
|---|----------------------------------|------------|
| Summer | | |
| PAST 513 | Physical Diagnosis III | 1 |
| PAST 535 | Clinical Medicine IV | 4 |
| PAST 542 | Clinical Skills III | 1 |
| PAST 552 | Pharm & Clinical Therapy III | 1.5 |
| PAST 562 | Physio & Pathophysiology III | 1.5 |
| PAST 590 | Special Topics in Medicine | 6 |
| Credits | | 15 |
| Second Year | | |
| Fall | | |
| Clinical Year | | |
| PAST 601 | Internal Medicine Clinical | 5 |
| PAST 610 | Emergency Medicine | 5 |
| PAST 620 | Women's Health Clinical | 5 |
| PAST 680 | Healthcare I | 1 |
| Credits | | 16 |
| Spring | | |
| PAST 630 | Behavioral Medicine Clinical (*) | 5 |
| PAST 640 | Surgery Clinical | 5 |
| PAST 650 | Primary Care Clinical | 5 |
| PAST 681 | Healthcare II | 1 |
| PAST 690 | Graduate Project I | 0.5 |
| PAST 695 | Summative Evaluation | 0 |
| PAST 660 | Pediatrics Clinical | 5 |
| PAST 670 | Elective Clinical | 5 |
| PAST 691 | Graduate Project II | 0.5 |
| PAST 695 | Summative Evaluation | 0 |
| Sequencing of clinical rotations depends on student schedules | | |
| Credits | | 27 |
| Summer | | |
| Clinical Year | | |
| Credits | | 0 |
| Total Credits | | 102 |

Physician Assistant Studies - Center City (MS)

Contacts

Program Director: Daniel L. Pavlik, DMS, PA-C, EM-CAQ

Email: Daniel.Pavlik@jefferson.edu
215-503-5724

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/departments-programs/health-science-clinical-practice/degrees-programs/graduate/ms-center-city.html>)

Program Description

The program prepares students to become competent physician assistants (PA), a medical professional who works as part of a team with a physician. After graduating from an accredited PA educational program, PAs become nationally certified and state-licensed to practice medicine in collaboration with a physician. PAs work in all areas of medicine, ranging from family practice to surgical subspecialties such as neurosurgery, and they perform physical examinations, diagnose and treat illnesses, order and interpret lab tests, perform procedures, prescribe medications assist in surgery, provide patient education and counseling, and make rounds in hospitals and nursing facilities.

Curriculum: 27 Months, 102 Credits

| Course | Title | Credits |
|----------------------|---|-------------|
| First Year | | |
| Pre-Fall | | |
| Didactic Year | | |
| PAST 500 | Advanced Human Anatomy | 5 |
| PAST 510 | Introduction to Clinical Asses | 1.5 |
| PAST 520 | Intro to Professional Practice | 1 |
| PAST 522 | Legal & Ethical Aspects of Med | 1 |
| PAST 523 | Evidence Bsd Med & Pop Hlth | 1 |
| Credits | | 9.5 |
| Fall | | |
| PAST 511 | Physical Diagnosis I | 1 |
| PAST 530 | Clinical Medicine I | 5 |
| PAST 550 | Pharm & Clinic Therapeutics I | 3 |
| PAST 540 | Clinical Skills I | 1.5 |
| PAST 560 | Physiology & Pathophysiology I | 2.5 |
| PAST 570 | Behavioral Science | 2 |
| PAST 581 | Health Promotions&Disease Prev | 1 |
| Credits | | 16 |
| Spring | | |
| PAST 512 | Physical Diagnosis II | 1 |
| PAST 533 | Clinical Medicine II | 3 |
| PAST 534 | Clinical Medicine III | 4 |
| PAST 541 | Clinical Skills II | 3 |
| PAST 551 | Pharm & Clinic Therapeutics II | 2 |
| PAST 561 | Physiology & Pathophys II | 2.5 |
| HQS 500 | Intro Healthcare Qual & Safety | 3 |
| Credits | | 18.5 |
| Summer | | |
| PAST 513 | Physical Diagnosis III | 1 |
| PAST 535 | Clinical Medicine IV | 4 |
| PAST 542 | Clinical Skills III | 1 |
| PAST 552 | Pharm & Clinical Therapy III | 1.5 |
| PAST 562 | Physio & Pathophysiology III | 1.5 |
| PAST 590 | Special Topics in Medicine | 6 |
| Credits | | 15 |
| Second Year | | |
| Fall | | |
| Clinical Year | | |
| PAST 601 | Internal Medicine Clinical ¹ | 5 |
| PAST 610 | Emergency Medicine ¹ | 5 |
| PAST 620 | Women's Health Clinical ¹ | 5 |
| PAST 680 | Healthcare I | 1 |
| Credits | | 16 |
| Spring | | |
| PAST 630 | Behavioral Medicine Clinical ¹ | 5 |
| PAST 640 | Surgery Clinical ¹ | 5 |
| PAST 650 | Primary Care Clinical ¹ | 5 |
| PAST 681 | Healthcare II | 1 |
| PAST 690 | Graduate Project I | 0.5 |
| PAST 695 | Summative Evaluation | 0 |
| PAST 660 | Pediatrics Clinical | 5 |
| PAST 670 | Elective Clinical ¹ | 5 |
| PAST 691 | Graduate Project II | 0.5 |
| PAST 695 | Summative Evaluation | 0 |
| Credits | | 27 |
| Total Credits | | 102 |

¹ Sequencing of clinical rotations depends on specific student schedules

Physician Assistant Studies – East Falls (MS)

Contacts

Program Director: Amanda L. Seymour, MS, PA-C

Email: Amanda.Seymour@jefferson.edu

215-951-0952

Campus: East Falls & New Jersey

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/departments-programs/health-science-clinical-practice/degrees-programs/graduate/ms-east-falls.html>)

Program Description

Thomas Jefferson University Physician Assistant Studies Program – East Falls/New Jersey is a comprehensive academic experience stressing the practical application of current medical theory. Many of the program faculty members are actively practicing health care providers with a great depth of knowledge and experience.

The mission of the Thomas Jefferson University East Falls/New Jersey Program is to educate students to become innovative, collaborative providers who are clinically well-prepared, adaptable, and who provide humanistic care to all patients and to the diverse communities they serve.

Curriculum: 25 Months, 113 Credits

| Course | Title | Credits |
|-----------------------------|----------------------------------|-------------|
| First Year | | |
| Year 1 Summer | | |
| PASF 507A | Advanced Anatomy | 2 |
| Credits | | 2 |
| Fall | | |
| PASF 507B | Advanced Anatomy | 3 |
| PASF 522 | Medicine I | 7 |
| PASF 524 | Patient Care & Clin Reasonig I | 5 |
| PASF 526 | Principles of PA Practice I | 4 |
| Credits | | 19 |
| Spring | | |
| PAST 615 | Diagnostic Medicine | 2 |
| PAST 621 | Clinical Disciplines Overview | 3.5 |
| PAST 627 | Patient Care & Clin Reasoning II | 5 |
| PAST 628 | Medicine II | 8 |
| Credits | | 18.5 |
| Summer | | |
| PAST 629 | Medicine III | 6 |
| PAST 631 | Patient Care & Clin Reason III | 3 |
| PAST 632 | Principles of PA Practice III | 1.5 |
| PAST 622 | Pharmacotherapeutics Seminar | 1 |
| Credits | | 11.5 |
| Second Year | | |
| Summer | | |
| PAST 762 | Transition to the Clinical Yr. | 6 |
| Year 2 Clinical Year | | |
| PAST 741 | Internal Medicine Rotation | 6 |

| Course | Title | Credits |
|----------------------|-----------------------------|------------|
| PAST 742 | Pediatrics Rotation | 6 |
| PAST 743 | Women's Health Rotation | 6 |
| PAST 744 | Psychiatry Rotation | 6 |
| PAST 745 | Surgery Rotation | 6 |
| PAST 746 | Emergency Medicine Rotation | 6 |
| PAST 759 | Primary Care 1 Rotation | 6 |
| PAST 760 | Primary Care 2 Rotation | 6 |
| PAST 764 | Elective Rotation | 6 |
| PAST 772 | Masters Comprehensive Exp | 2 |
| Credits | | 62 |
| Total Credits | | 113 |

Clinical Rotations (5 Weeks Each)

| Code | Title | Credits |
|--------------------------|-------|---------|
| Internal Medicine | | |
| Primary Care I | | |
| Primary Care II | | |
| Pediatrics | | |
| Women's Health | | |
| Emergency Medicine | | |
| Psychiatry/Mental Health | | |
| Surgery | | |
| Elective | | |

Psychology (BS) & Community & Trauma Counseling (MS)

Contacts

Program Director: BS: Dale Michaels, MS, LPC

Email: Dale.Michaels@jefferson.edu

Program Director: MS: Nicole G. Johnson, Ph.D., LPC, ACS, CAADC, CCDP-D, BC-TMH

Email: Nicole.G.Johnson@jefferson.edu

Campus: East Falls

Program Website (<https://www.jefferson.edu/content/dam/university/admissions/FactSheets/Undergrad/HealthProfessions/UG-CHS-CHP-PsychologyCTC.pdf>)

Program Description

Designed for students interested in becoming professional counselors who want to make a difference in the lives of trauma survivors. Accelerated dual degree program allows students to seamlessly complete undergraduate and graduate degrees in less time than would be required to complete both separately.

- See each program for Learning Outcomes.

Learning Goals/Outcomes (Psychology)

- Apply scientific and psychological concepts to make informed clinical decisions.
- Explain factors that can influence health and well-being.
- Apply principles of professionalism, respect, and ethical behavior (in class and in the field).

- Demonstrate an understanding of a range of helping professions' scopes of practice and responsibilities to make informed career decisions.

Curriculum: 5 Years, 169 Credits (121 BS; 48 MS)

| Course | Title | Credits |
|-------------------|--------------------------------|-----------|
| First Year | | |
| FYS 100 | Pathways Seminar | 1 |
| WRIT 101 | Writing Sem I: Written Comm. | 3 |
| AMST 114 | Course AMST 114 Not Found | 3 |
| WRIT 201 | Writing Seminar II: Multi Comm | 3 |
| MATH XXX | Math 1 | 3 |
| XXX | Science 1 | 3 |
| PSY XXX | Psychology Elective | 3 |
| MATH XXX | Math 2 ¹ | 3 |
| PSYC 101 | Intro to Psychology | 3 |
| PSYC 103 | Physiological Psychology | 3 |
| PSYC 213 | Developmental Psychology | 3 |
| GDIV 2XX | Global Diversity | 3 |
| ADIV 2XX | American Diversity | 3 |
| PSYC 201 | Abnormal Psychology | 3 |
| PSYC 226 | Psychology of Trauma | 3 |
| PSYC 222 | Counseling Psychology | 3 |
| PSYC 220 | Clinical Psychology | 3 |
| PSYC 223 | Marriage and Family | 3 |
| ETHC XXX | Ethics | 3 |
| PSYC XXX | Psychology Elective | 3 |
| PSYC XXX | Psychology Elective | 3 |
| General Elective | | 3 |
| Credits | | 64 |

| | | |
|-------------------|------------------------------|-----------|
| Third Year | | |
| CGIS 300 | Contemporary Global Issues | 3 |
| ISEM 3XX | Integrative Seminar | 3 |
| GCIT 2XX | Global Citizenship | 3 |
| STAT 220 | Stats for the Behavioral Sci | 3 |
| PSYC 224 | Psychology of Addiction | 3 |
| PSYC 322 | Research Method Behavior Sci | 3 |
| PSYC 2XX | Psychology Elective(s) | 9 |
| PSYC 401 | Course PSYC 401 Not Found | 3 |
| General Elective | | 3 |
| Credits | | 33 |

| | | |
|--------------------------|-------------------------------|----------|
| Summer | | |
| Between Years 3-4 | | |
| PHIL 499 | Philosophies of the Good Life | 3 |
| PSYC 391 | Adv Research in Psychology | 3 |
| Credits | | 6 |

| | | |
|------------------------------|---|-----------|
| Fourth Year | | |
| Fall | | |
| CTC 601 | Orient to the Counseling Prof | 3 |
| CTC 602 | Pre-Prac:Thry & Prc of Counsel ² | 3 |
| CTC 603 | Human Growth & Development | 3 |
| CTC 604 | Psychopathology | 3 |
| BS Awarded (December) | | |
| Credits | | 12 |

| | | |
|----------------|-------------------------------|----------|
| Winter | | |
| CTC 605 | Foundatn of Trauma Counseling | 3 |
| Credits | | 3 |
| Spring | | |
| CTC 606 | Social and Cultural Diversity | 3 |

| Course | Title | Credits |
|---------------------------|-------------------------------|------------|
| CTC 607 | Adv. Counseling Theory & Prac | 3 |
| CTC 610 | Counsln Research and Evaltn | 3 |
| CTC 701 | Praticum ³ | 3 |
| Credits | | 12 |
| Fifth Year | | |
| (Refer to CTC MS Program) | | |
| Credits | | 0 |
| Total Credits | | 130 |

- ¹ Math 2 = General Elective in MATH 102 Pre-Calculus is satisfied
² CTC 601 Orient to the Counseling Prof = Pre= Practicum, Formerly Practicum 1
³ CTC 701 Praticum = Practicum 1, Formerly Practicum 2

Respiratory Therapy (BS)

Contacts

Program Director: Jerin George Juby, DMgt, RRT
Email: Jerin.Juby@jefferson.edu
 215-503-5005
Campus: Center City
 Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/departments-programs/respiratory-therapy.html>)

Program Description

Respiratory therapists evaluate and treat patients with lung and heart problems. They administer medications, manage airways and perform cardiopulmonary rehabilitation. Respiratory therapists play a critical role in healthcare and work in emergency rooms, intensive care units, nursing homes, outpatient clinics, and even sleep centers.

Learning Goals/Outcomes

Entry Into Practice

To prepare graduates with demonstrated competence in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains of respiratory care practice as performed by registered respiratory therapists (RRTs).

To prepare leaders for the field of respiratory care by including curricular content with objectives related to the acquisition of skills in one or more of the following: management, education, research and advanced clinical practice (which may include an area of clinical specialization).

Degree Advancement

To provide graduates of entry into respiratory care professional practice degree programs with additional knowledge, skills and attributes in leadership, management, education, research or advanced clinical practice both to meet their current professional goals and to prepare them for practice as advanced degree respiratory therapists.

Accreditation Status

Entry into Practice

The Thomas Jefferson University/National Jewish Health, program # 200652, BS RT Entry into Practice, in Philadelphia, PA, holds Provisional

Accreditation from the Commission on Accreditation for Respiratory Care (www.coarc.com).

This status signifies that a program with an Approval of Intent has demonstrated sufficient compliance with the Standards (through submission of an acceptable Provisional Accreditation Self Study Report (PSSR) and any other documentation required by the CoARC, as well as satisfactory completion of an initial on-site visit), to be allowed to admit students. It is recognized as an accredited program by the National Board for Respiratory Care (NBRC), which provides enrolled students who complete the program with eligibility for the Respiratory Care Credentialing Examination(s). The program will remain on Provisional Accreditation until it achieves Continuing Accreditation.

Degree Advancement

The Thomas Jefferson University/National Jewish Health, program # 510030, BS RT Degree Advancement, in Philadelphia, PA, holds Provisional Accreditation from the Commission on Accreditation for Respiratory Care (www.coarc.com).

This status signifies that a program with an Approval of Intent has demonstrated sufficient compliance with the Standards (through submission of an acceptable Provisional Accreditation Self-Study Report (PSSR) and any other documentation required by the CoARC, as well as satisfactory completion of an initial on-site visit).

Curriculum: 2 Years, 60 Credits

- Entry into Practice- A two-year Bachelor of Science program that occurs after a student has completed 60 credits of general education and prerequisite courses.

| Course | Title | Credits |
|--------------------|--------------------------------|-----------|
| First Year | | |
| Fall | | |
| RESP 300 | Orient to Resp Therapy | 0 |
| RESP 301 | Cardiopulmonary A&P | 3 |
| RESP 303 | Pulm Function Test w/ Lab | 4 |
| RESP 305 | Resp Care Equip & Tech w/ Lab | 4 |
| RESP 307 | Respiratory Pharmacology | 3 |
| Credits | | 14 |
| Spring | | |
| RESP 309 | Clinical Prac I - Intro to RT | 3 |
| RESP 311 | Intro to Mechanic Venti w/ Lab | 4 |
| RESP 315 | Neontal / Ped Resp Care w/ Lab | 4 |
| RESP 317 | Resp Care Special Population | 3 |
| Credits | | 14 |
| Summer | | |
| RESP 319 | Clinical Practicum II | 3 |
| RESP 321 | Advance Ventilator Mgmt w/ Lab | 4 |
| Credits | | 7 |
| Second Year | | |
| Fall | | |
| RESP 401 | Critical Care | 3 |
| RESP 403 | Clinical Practicum III | 3 |
| RESP 405 | Pulmonary Disease Management | 3 |
| RESP 407 | Funda of Resp Care Research | 3 |
| Credits | | 12 |
| Spring | | |
| RESP 409 | Current Issues in Resp Care | 3 |
| RESP 411 | Clinical Practicum IV | 3 |
| RESP 415 | Teach and Learn in Resp Care | 3 |

| Course | Title | Credits |
|----------------------|--------------------------------|-----------|
| RESP 413 | Prep Exam Course | 1 |
| RESP 417 | Leadership & Mgmt in Resp Care | 3 |
| Credits | | 13 |
| Total Credits | | 60 |

Curriculum: 2 Years, 40-44 Credits

- Degree Advancement - A two-year fully online Bachelor of Science program that allows licensed Registered Respiratory Therapists (RRT) who have completed an associate degree in Respiratory Therapy at an accredited CoARC program to earn a BS in Respiratory Therapy.

| Course | Title | Credits |
|----------------------|--------------------------------|--------------|
| First Year | | |
| Fall | | |
| RESP 351 | Advanced Critical Care | 3 |
| RESP 353 | Advanced Pulmonary Physiology | 3 |
| General Elective | | 2-3 |
| Credits | | 8-9 |
| Spring | | |
| RESP 355 | Adv Neonatal / Pedia Resp Care | 3 |
| RESP 317 | Resp Care Special Population | 3 |
| General Elective | | 3-4 |
| Credits | | 9-10 |
| Summer | | |
| RESP 361 | Advanced Cardiopulmo Support | 3 |
| General Elective | | 3-4 |
| Credits | | 6-7 |
| Second Year | | |
| Fall | | |
| RESP 405 | Pulmonary Disease Management | 3 |
| RESP 407 | Funda of Resp Care Research | 3 |
| General Elective | | 2-3 |
| Credits | | 8-9 |
| Spring | | |
| RESP 409 | Current Issues in Resp Care | 3 |
| RESP 415 | Teach and Learn in Resp Care | 3 |
| RESP 417 | Leadership & Mgmt in Resp Care | 3 |
| Credits | | 9 |
| Total Credits | | 40-44 |

Trauma, Addiction & Recovery Advanced Studies (Graduate Certificate)

Contacts

Program Director: TBD

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/departments-programs/counseling-behavioral-health/programs/community-trauma-counseling/advanced-studies-in-trauma-addictions-recovery.html>)

Program Description

The Certificate of Advanced Studies in Trauma, Addiction and Recovery provides professionals with an advanced understanding of the potential impact of trauma on physical, social, cognitive, and emotional development and further provides training in identifying, diagnosing and

treating co-occurring substance use and mental health disorders. The Certificate consists of four classes (for credit or continuing education) designed for professionals who master's level clinical mental health professionals, physicians, nurses, OTs, PAs or for students currently enrolled in one of the aforementioned graduate programs. This program meets the educational requirements for the Certified Advanced Alcohol and Drug Counselor (CAADC) in the state of Pennsylvania.

Curriculum: 12 Credits

| Code | Title | Credits |
|----------------------|--------------------------------|-----------|
| Summer | | |
| CTC 614 | Fndtns of Trauma&Addictv Behav | 3 |
| Fall | | |
| CTC 670 | Screening, Assess, & Treatment | 3 |
| Spring | | |
| CTC 671 | Ethical Treatmnt & Intervntion | 3 |
| CTC 672 | Neurobio & Psychopharm of Addc | 3 |
| Total Credits | | 12 |

College of Humanities & Sciences (JCHS)

Dean: Barbara Kimmelman, PhD

College Website (<https://catalog.jefferson.edu/colleges-schools/college-humanities-sciences-jchs/Jefferson.edu/JCHS/>)

About Us

Our students tackle real-world issues through collaborative and experiential studies, exploring their passions as they develop communication skills and learn ethical professional practices.

Human interactions with social, natural, and physical environments are the focus of the College of Humanities & Sciences, where we take an interdisciplinary approach to learning at the intersections of the liberal arts with the social and behavioral sciences to form a truly innovative curriculum.

Our students explore their passions, develop communication skills, and learn ethical professional practices. They tackle real-world issues through collaborative and experiential study. With attentive advising, community engagement, and participation in faculty research, our students are prepared to succeed in the professional realm in a wide range of careers or to continue their academic studies in graduate and professional programs. Whatever career path they choose, our graduates are valued for their integrative thinking, collaborative work ethic, and global perspectives.

The Hallmarks Core

Jefferson achieves its mission by combining world-class pre-professional majors with a customized and comprehensive approach to general education: The Hallmarks Core curriculum.

The Hallmarks prepares Jefferson students to imagine and realize better futures, empowering them to:

- **Question**--based on rigorous inquiry and critical analysis
- **Adapt**--based on contextual communication and global perspectives

- **Contribute**--based on intercultural insight and collaborative creation
- **Act**--based on intellectual risk-taking and ethical reflection

This statement identifies eight Hallmarks Core learning goals that we consider vital to our students' personal and professional success.

| Key Capabilities | Hallmarks Learning Goals: Your "Power Skills" |
|--------------------------|--|
| Rigorous Inquiry | Create strategies for expanding knowledge through reflection and research |
| Critical Analysis | Challenge concepts, practices and experts with reasoning and evidence. |
| Contextual Communication | Develop and share insights using appropriate means of expression. |
| Global Perspectives | Navigate diverse environments and complex issues by managing multiple systems of knowledge and behavior. |
| Intercultural Insight | Consider multiple perspectives in order to relate to others and strengthen communities. |
| Collaborative Creation | Achieve goals by integrating skills and knowledge in a team setting. |
| Intellectual Risk-Taking | Take creative and intellectual risks when exploring ideas and real world problems. |
| Ethical Reflection | Affirm an ethical compass to guide personal, civic and professional life. |

The Hallmarks Core curriculum prepares students for professional success and civic engagement through a coherent and general education core curriculum that develops these eight outcomes progressively across four years of study.

| Year One | Year Two | Year Three | Year Four |
|---|--------------------|----------------------------|-------------------------------|
| American Visions | Writing Seminar II | Contemporary Global Issues | Philosophies of the Good Life |
| Writing Seminar I | American Diversity | Integrative Seminar | |
| First Year Seminar (1 credit) | Ethics | | |
| | Global Citizenship | | |
| | Global Diversity | | |
| Scientific Understanding | | | |
| Mathematics | | | |
| Mathematics or Scientific Understanding | | | |

The curriculum chart below identifies the prerequisites and course options for the different requirement categories in the Hallmarks Core. The Hallmarks Core sequences its requirements over four years in order to build skills, knowledge and learning outcomes progressively. In most cases, majors have scheduled these requirements in specific years or semesters within their curricula. Students should consult with their

academic advisors before registering each semester and use the chart provided here to ensure that they are on track in terms of sequencing and prerequisites.

| First Year Seminar | Sophomore Year Writing Seminar II: Multimedia Communication | Junior Year Contemporary Global Issues | Senior Year Philosophies of the Good Life |
|--------------------|---|---|--|
| FYS 100 (1 credit) | WRIT 201 (Prereq: WRIT 101/WRIT 101G) | CGIS 300 (Prereq: WRIT 201/WRIT 202, GDIV 2xx or GCIT 2xx) | PHIL 499 (Prereq: CGIS 300, ISEM 3xx, ETHC 2xx, ADIV 2xx, GCIT 2xx, MATH 1xx, Scientific Understanding) |

| Global Diversity | Integrative Seminars |
|--|--|
| GDIV 221, GDIV 229, GDIV 231, GDIV 233, GDOV 234, GDIV 235, GDIV 236, GDIV 333 (Prereq: AMST 114, WRIT 101/WRIT 101G) | ISEM 300/DECM 300, ISEM 301, ISEM 302, ISEM 303, ISEM 305, ISEM 308, ISEM 313, ISEM 340, ISEM 360 (Prereq: WRIT 201/WRIT 202, GDIV 2xx or GCIT 2xx) |

| World Languages |
|--|
| FREN 101/FREN 201/FREN 301/FREN 401: Italian I-IV, JAPN 101/JAPN 201/JAPN 301/JAPN 401: Japanese I-IV, SPAN 101/SPAN 201/SPAN 301/SPAN 401: Spanish I-IV, SPAN 202, SPAN 302 |

| Writing Seminar I: Written Communication | Ethics |
|--|--------|
| ETHC 200, ETHC 201, ETHC 202, ETHC 204, ETHC 207, ETHC 215 (Prereq: AMST 114, WRIT 101/WRIT 101G) | |

| First Year | Sophomore Year | Junior Year | Senior Year |
|------------|--|-------------|-------------|
| | American Diversity | | |
| | ADIV 200, ADIV 201, ADIV 202, ADIV 203, ADIV 204, ADIV 206, ADIV 211, ADIV 212, ADIV 213, ADIV 214, ADIV 215, ADIV 216, ADIV 217, ADIV 218 , ADIV 219, ADIV 220, ADIV 221 (Prereq: AMST 114, WRIT 101/ WRIT 101G) | | |

American Visions Global

| | Citizenship |
|----------|---|
| AVIS 101 | GCIT 200, GCIT 210, GCIT 211, GCIT 214, GCIT 215, GCIT 225 (Prereq: AMST 114, WRIT 101/ WRIT 101G) |

World Languages

| | |
|--|--|
| | FREN 101/ FREN 201/FREN 301/FREN 401: French I-IV, GER 101/GER 201: German I-II, ITAL 101/ ITAL 201/ITAL 301/ITAL 401: Italian I-IV, JAPN 101/ JAPN 201, SPAN 101/ SPAN 201/SPAN 301/SPAN 401: Spanish I-IV, SPAN 202, SPAN 302 |
|--|--|

Mathematics

| First Year | Sophomore Year | Junior Year | Senior Year |
|------------|---|-------------|-------------|
| | MATH 100/ MATH 101, MATH 102, MATH 103, MATH 104, MATH 110, MATH 111 | | |
| | Scientific Understanding | | |
| | SCI 101, SCI 102, CHEM 101, PHYS 101, SCI 106, SCI 108, 101, CHEM 103, SCI 110, BIOL 101 BIOL 103, PHYS 201 | | |
| | Mathematics or Scientific Understanding | | |
| | Any third course from the above two categories (or STAT 201 in some majors – please consult the check sheet for your program) | | |

Hallmarks Humanities Concentrations

As you move through the Hallmarks Core curriculum, you can customize your education by choosing to follow one of three special sequences of courses relevant to your personal interests or future profession. When you complete 3 courses in your chosen sequence, your transcript will reflect your Concentration in Health Humanities, Design Humanities, or Environmental Humanities. Completing a concentration is completely optional and requires no additional course work beyond the standard Hallmarks Core requirements. You can declare your chosen Humanities Concentration by submitting this form (<https://www.jefferson.edu/content/dam/academic/academic-affairs/registrar/forms/Declare%20Hallmarks%20Concentration.pdf>) to the Registrar's Office.

Concentration in Health Humanities

To earn this concentration, complete any 3 of the following options from the Hallmarks Core requirements:

- ADIV 220 Health & U.S. Diversity
- GDIV 234 Global Cultures of Health
- GCIT 217 Global Health
- ETHC 200 Bioethics
- ISEM 305 Healthcare Economics & Policy
- ISEM 308 Health in the Humanities

Concentration in Design Humanities

To earn this concentration, complete any 3 of the following options from the Hallmarks Core requirements:

- ADIV 219 Cities & Diversity in the U.S.
- GDIV 236 Global Cultures of Beauty
- GCIT 216 Politics of Glob Supply Chains

- ETHC 207 Philosophy & Ethics of Design
- ISEM 360 Environments for Well-Being

Concentration in Environmental Humanities

To earn this concentration, complete any 3 of the following options from the Hallmarks Core requirements:

- ADIV 221 Environmntl Justice in America
- GDIV 221 Environment & World Culture
- GCIT 214 Global Environmental Citiznshp
- ETHC 202 Environmental Ethics
- ISEM 340 Sustainable Devel&Glob South

Introductory and Fundamental Courses

Some students begin the Hallmarks Core sequence with appropriate preparatory courses in reading, writing and mathematics (determined by placement testing). Courses at the 100-level (WRTG 100 Introduction to Academic Writing, WRTG 100G Introduction to Academic Writing: Global, and TXIS 100 Textual Analysis for International Students) carry academic credits that apply towards graduation. Courses at the 099-level (MATH 099 Fundamentals of College Mathematics) carry credits that do not apply towards graduation.

Arlen Specter Center

The (Senator) Arlen Specter Center at Jefferson facilitates and promotes public service and civic education in a cross-disciplinary, nonpartisan setting. The Center is also home to Senator Specter's historic archive of papers, photographs and political documents for the benefit of researchers, scholars and the public.

The Specter Center Includes:

- Arlen Specter Collection
- Roxboro Roundtables
- Knowledge Exchange
- Special Events
- Research Fellowship
- Historic Roxboro House

Academic Programs

Undergraduate

- Biopsychology, BS
- Communication & Media Studies, BS
- Interdisciplinary Studies, BS
- Law & Society, BS
- Psychology, BS

Accelerated/Dual Degree

- BS Psychology & MS Community & Trauma Counseling, BS & MS¹
- BS Psychology & MS Occupational Therapy, BS & MOT¹

¹ See Program Director for Plan of Study.

Biopsychology (BS)

Contacts

Program Director: John D. Pierce Jr., PhD

Email: John.Pierce@jefferson.edu

215-951-2556

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/humanities-sciences/degree-programs/biopsychology.html>)

Program Description

In this program, you will study psychology alongside biology, chemistry, anatomy & physiology, making this an ideal first step into further studies in a variety of experimental psychology settings, neuroscience, health fields, and scientific research. You will work closely with faculty to develop an avenue of career possibilities. First, you select a concentration option – pre-medical or graduate school – allowing you to adapt your curriculum to your career goals and interests. You will also learn to conduct professional-level research, completing an independent research project your senior year. During your time in the program, you can further enrich your education with internships in research, legal and educational settings; or study abroad anywhere in the world.

Learning Goals/Outcomes

- Analyze and apply the scientific process to psychology.
- Locate, retrieve, critically evaluate and communicate scientific data and knowledge.
- Communicate effectively and professionally.
- Express expertise in specific content areas of psychology.
- Display knowledge of the ethical standards, personal integrity and professional responsibilities of psychologists.
- Apply principles and practice of core information and values in a psychology practice environment through internships and applied research.

Curriculum: 4 Year, 120-130 Credits

| Course | Title | Credits |
|---|-------------------------------|---------|
| First Year | | |
| FYS 100 | Pathways Seminar | 1 |
| WRIT 101 | Writing Sem I: Written Comm. | 3 |
| AVIS 101 | American Visions | 3 |
| Select one of the following MATH 1XX courses: | | 3-4 |
| MATH 100 | College Algebra | |
| MATH 101 | College Algebra | |
| MATH 102 | Pre-Calculus | |
| MATH 103 | Applied Calculus | |
| MATH 111 | Calculus I | |
| Select one of the following: | | 3-4 |
| Quant Reasoning II | | |
| General Elective | | |
| BIOL 103 & 103L | Biology I and Biology I Lab | 4 |
| BIOL 104 & 104L | Biology II and Biology II Lab | 4 |
| PSYC 101 | Intro to Psychology | 3 |

| Course | Title | Credits |
|--|--|----------------|
| PSYC 213 | Developmental Psychology | 3 |
| PSYC 103 | Physiological Psychology | 3 |
| Credits | | 30-32 |
| Second Year | | |
| ETHC 2XX | Ethics | 3 |
| GDIV 2XX | Global Diversity | 3 |
| WRIT 201 | Writing Seminar II:Multi Comm | 3 |
| ADIV 2XX | American Diversity | 3 |
| CHEM 103 & 103L | Chemistry I and Chemistry I Lab | 4 |
| CHEM 104 & 104L | Chemistry II and Chemistry II Lab | 4 |
| Select from one of the following PSYC 2XX courses: | | 3 |
| PSYC 240 | Comparative Psychology | |
| PSYC 241 | Psychopharmacology | |
| PSYC 242 | Sensations and Perceptions | |
| PSYC XXX | Concentration Course | 3-4 |
| PSYC XXX | Concentration Course | 3-4 |
| Credits | | 29-31 |
| Third Year | | |
| GCIT 2XX | Global Citizenship | 3 |
| CGIS 300 | Contemporary Global Issues | 3 |
| ISEM 3XX | Integrative Seminar | 3 |
| BIOL 201 & 201L | Human Anatomy and Physiology I and Human Anat & Physiology I Lab | 4 |
| STAT 220 | Stats for the Behavioral Sci | 3 |
| PSYC 2XX | Psych Designated Elective | 3 |
| PSYC 322 | Research Method Behavior Sci | 3 |
| Select one of the following PSYC 2XX courses: | | 3 |
| PSYC 240 | Comparative Psychology | |
| PSYC 241 | Psychopharmacology | |
| PSYC 242 | Sensations and Perceptions | |
| PSYC XXX | PSYC Concentration course | 3-4 |
| PSYC XXX | PSYC Concentration course | 3-4 |
| General Electives | | 3 |
| Credits | | 34-36 |
| Fourth Year | | |
| PHIL 499 | Philosophies of the Good Life | 3 |
| PSYC 391 | Adv Research in Psychology | 3 |
| PSYC 410 | SR Colloquium in Psychology | 3 |
| Select one of the following PSYC 2XX courses: | | 3 |
| PSYC 240 | Comparative Psychology | |
| PSYC 241 | Psychopharmacology | |
| PSYC 242 | Sensations and Perceptions | |
| PSYC XXX | PSYC Concentration course | 3-4 |
| PSYC XXX | PSYC Concentration course | 3-4 |
| PSYC XXX | PSYC Concentration course | 3-4 |
| General Electives | | 9 |
| Credits | | 30-33 |
| Total Credits | | 123-132 |

Psychology Concentration Option

(See academic advisor before selecting one of the following)

Pre-Med Option

| Code | Title | Credits |
|----------|---|---------|
| MATH 111 | Calculus I (must take to fulfill the Math requirement) | 4 |
| MATH 112 | Calculus II (must take to fulfill the Math requirement) | 4 |

| Code | Title | Credits |
|--|--|---------|
| CHEM 201 & 201L | Organic Chemistry I and Organic Chemistry I Lab | 4 |
| CHEM 202 & 202L | Organic Chemistry II and Organic Chemistry II Lab | 4 |
| PHYS 201 & 201L | Course PHYS 201 Not Found and Course PHYS 201L Not Found | 4 |
| PHYS 203 & 203L | Course PHYS 203 Not Found and Physics II Lab | 4 |
| Three additional advanced courses from Biology and Psychology ¹ | | 9 |

¹ See advisor

Graduate Study Option¹

| Code | Title | Credits |
|--|-------|---------|
| Select three advanced courses from Biology | | 9 |
| Select three advanced courses from Psychology | | 9 |
| Select one additional advanced course from Biology or Psychology areas | | 3 |

¹ Select seven advanced courses from Biology and Psychology areas (at least three from each area; see advisor)

Introductory and Fundamentals Courses

(Fundamental "099" courses do **not** count toward graduation requirements. However, WRTG 100 Course WRTG 100 Not Found **can** be used toward graduation credits as a General Elective.

Communication & Media Studies (BS)

Contacts

Program Director: Kevin Thompson, PhD

Email: Kevin.Thompson@jefferson.edu

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/humanities-sciences/degree-programs/communication.html>)

Program Description

The Jefferson Communication & Media Studies program prepares students for today's media marketplace through a broad-based education that emphasizes storytelling, critical thinking, and creative problem-solving and multimedia skills development.

The program tailors itself to the unique career goals of each student, and provides the key skills necessary to transition into new areas of communications, as the marketplace continues to change and grow.

Learning Goals/Outcomes

- Planning and Process: apply a process of self-reflection and self-evaluation in order to plan their course of study and professional path in Communication [integration]
- Visual Literacy: read, interpret, and analyze visual information in multiple forms of 153 media [visual]

- **Idea Invention:** engage in generative and iterative processes to develop and communicate original ideas to achieve specific communication goals [rhetoric, practice, visual, integration]
- **Rhetoric and Writing:** identify and apply written techniques of argument and persuasion appropriate to specific tasks, audiences, and platforms [rhetoric, practice]
- **Visual/Verbal Presentation:** synthesize & understanding of visual and verbal communication techniques and technologies to create effective presentations for specific audiences [rhetoric, practice, visual, integration]
- **Narrative Creation:** identify and apply written and visual narrative strategies to the invention and communication of persuasive stories for specific audiences [rhetoric, practice, visual, integration]
- **History/Theory:** explore the relationship between meaning and context through analysis of historical and contemporary communicative expressions [rhetoric, practice, visual integration]

Curriculum: 4 Year, 122-128 Credits

| Course | Title | Credits |
|------------------------------------|--|--------------|
| First Year | | |
| FYS 100 | Pathways Seminar | 1 |
| WRIT 101 | Writing Sem I: Written Comm. | 3 |
| MATH XXX | Mathematics | 3-4 |
| AVIS 101 | American Visions | 3 |
| Scientific Understanding | | 3-4 |
| Scientific Understanding/Math/STAT | | 3-4 |
| COMS 101 | Intro to Comm & Media Studies | 3 |
| COMS 102 | Introduct to Public Speaking | 3 |
| COMS 200 | Visual Media | 3 |
| COMS 202 | Responsible News&Research (Minor Course Selection) | 3 |
| Minor Course (1 of 4) | | 3 |
| Credits | | 31-34 |
| Second Year | | |
| WRIT 201 | Writing Seminar II:Multi Comm | 3 |
| GDIV 2XX | Global Diversity Placeholder | 3 |
| ETHC 2XX | Ethics Course Placeholder | 3 |
| COMS 203 | Digital Communication &Culture | 3 |
| COMS 204 | Intro to Video Production | 3 |
| COMS 206 | PR/Strategic Communication | 3 |
| COMS 307 | Media Writing | 3 |
| MKTG 102 | Principles of Marketing | 3 |
| Visual Production Course | | 3 |
| Visual Production Course | | 3 |
| Minor Course (2 of 4) | | 3 |
| Credits | | 33 |
| Third Year | | |
| ADIV 2XX | American Diversity Placeholder | 3 |
| GCIT 2XX | Global Citizenship Placeholder | 3 |
| CGIS 300 | Contemporary Global Issues | 3 |
| COMS 300 | Audio Production: Podcasting | 3 |
| COMS 306 | Social Media Strategies | 3 |
| LAW 304 | Law, Media & Society | 3 |
| Minor Course (3 of 4) | | |
| General Elective | | 9 |
| Credits | | 27 |
| Fourth Year | | |
| HALLMK 499 | Course HALLMK 499 Not Found | 3 |
| ISEM 3XX | Integrative Sem Placeholder | 3 |

| Course | Title | Credits |
|----------------------|----------------------------|----------------|
| COMS 316 | Multimedia Journalism | 3 |
| COMS 404 | Professional Comm Capstone | 3 |
| General Electives | | 15 |
| Credits | | 27 |
| Total Credits | | 118-121 |

Interdisciplinary Studies (BS) Contacts

Program Director: Guangzhi Huang, PhD

Email: Guangzhi.Huang@jefferson.edu
215-951-5676

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/humanities-sciences/degree-programs/interdisciplinary-studies.html>)

Program Description

Interdisciplinary Studies majors become effective professionals who are skilled communicators and solvers of complex social, civic, and professional issues—in local, national or global contexts. Through experience in a variety of liberal arts and professional methodologies, you will become a skilled researcher and thinker who not only knows where to look for information but also is able to assess how to apply disciplinary strengths in innovative ways to a variety of existing and emerging professions.

Customize your degree by choosing a specialization in one of Jefferson's interdisciplinary areas—Global Studies, Diversity Studies, Sustainability and Environmental Studies, Medicine and Society, or propose your own specialization.

This program can be completed in as little as 3 years with classes available throughout the summer semesters.

Learning Goals/Outcomes

- Employ a variety of interdisciplinary methodologies to better understand individual, social, civic, and professional issues.
- Select and employ interdisciplinary methodologies to address and develop solutions to complex individual, social, civic, and professional issues.
- Recognize and apply appropriate communication strategies for various contexts and settings.
- Articulate interrelated individual, social, civic, and professional responsibilities in global society.
- Recognize gaps in knowledge and select and apply appropriate research strategies from a variety of disciplines to close those gaps.
- Explain the relevance and value of interdisciplinary studies as it relates to and informs students' overall course of study and individual professional career preparation.

Curriculum: 3-4 Years, 121 Credits

Select area of Specialization:

- Global Studies
- Diversity Studies

- Sustainability
- Environmental Studies

| Course | Title | Credits |
|------------------------------|--------------------------------|----------------|
| First Year | | |
| FYS 100 | Pathways Seminar | 1 |
| INDS 101 | Intro to Interdisc Studies | 3 |
| WRIT 101 | Writing Sem I: Written Comm. | 3 |
| AVIS 101 | American Visions | 3 |
| Interdisciplinary Electives | | 9 |
| Science | | 3-4 |
| Mathematics | | 3-4 |
| Select one of the following: | | 3-4 |
| Science | | |
| Statistics | | |
| Mathematics | | |
| General Elective | | 3 |
| Credits | | 31-34 |
| Second Year | | |
| Specialization Course | | 3 |
| INDS 200 | Interdisciplinary Methods | 3 |
| Specialization Course | | 3 |
| Global Diversity | | 3 |
| Interdisciplinary Electives | | 3 |
| GCIT 3XX | Global Citizenship | 3 |
| WRIT 201 | Writing Seminar II: Multi Comm | 3 |
| ISEM 3XX | Integrative Seminar | 3 |
| ADIV 2XX | American Diversity | 3 |
| General Elective | | 3 |
| Credits | | 30 |
| Third Year | | |
| Specialization Course | | 3 |
| Specialization Course | | 3 |
| CGIS 300 | Contemporary Global Issues | 3 |
| Interdisciplinary Electives | | 12 |
| ETHC 3XX | Ethics | 3 |
| Minor course | | 3 |
| General Elective | | 3 |
| Credits | | 30 |
| Fourth Year | | |
| Specialization Course | | 3 |
| INDS 499 | Interdisciplinary Capstone | 3 |
| Specialization Course | | 3 |
| Specialization Course | | 3 |
| Specialization Course | | 3 |
| PHIL 499 | Philosophies of the Good Life | 3 |
| Minor course | | 3 |
| Minor course | | 3 |
| Minor course | | 3 |
| General Elective | | 3 |
| Credits | | 30 |
| Total Credits | | 121-124 |

Law & Society (BS)

Contacts

Program Director: Evan Laine, JD, MA

Email: Evan.Laine@jefferson.edu

215-751 2768

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/humanities-sciences/degree-programs/law-society.html>)

Program Description

Interdisciplinary program that encourages active student participation and debate on issues concerning how competing powers create law, for what purpose, and how these laws are implemented and why they are followed. The program develops leadership by building critical thinking and communication skills in an energetic, practically oriented environment. Graduates are prepared broadly for careers in the legal profession, such as law school, paralegal and legal assistantships, and for positions in criminal justice, law enforcement, politics, nonprofits and government organizations

Learning Goals/Outcomes

- Experience in a broad interdisciplinary major
- Obtain an understanding of the structures and functions of the legal systems in both the American and global context
- Have strong experiences in writing across contexts
- Ability to apply understanding and skills to the recognition and resolution of problems in contemporary society
- Prepared for graduate & professional careers, within the legal system and without, as well as a variety of public and private settings
- Understanding of the historical, philosophical, political, and social foundations of the law and its roles in society, and its relationship to economic, political, social and cultural structures and values in contemporary world

Curriculum: 4 Years, 121 Credits

| Course | Title | Credits |
|---|-----------------------------------|--------------|
| First Year | | |
| FYS 100 | Pathways Seminar | 1 |
| WRIT 101 | Writing Sem I: Written Comm. | 3 |
| DBTU 114 | Debating U.S. Issues | 3 |
| Science I | | 3-4 |
| MATH XXX | | 3-4 |
| LAW 101 | Introduction to Law & Society | 3 |
| LAW 103 | Crime and Justice | 3 |
| LAW 105 | American Government | 3 |
| General Electives | | 9 |
| Credits | | 31-33 |
| Second Year | | |
| ETHIC 1XX | Ethics | 3 |
| Science II | | 3-4 |
| WRIT 201 | Writing Seminar II: Multi Comm | 3 |
| ADIV 2XX | American Diversity | 3 |
| Select one of the following GDIV 2XX courses: | | 3 |
| Global Diversity | | |
| Lang | | |
| LAW 203 | Comparative Legal Systems | 3 |
| LAW 201 | Constitutional Law | 3 |
| LAW 213 | Consp Ther: Hist, Analysis, Decon | 3 |
| Designated Electives | | 9 |
| General Elective | | 3 |
| Credits | | 36-37 |
| Third Year | | |
| ADIV 2XX | American Diversity Placeholder | 3 |
| GCIT 3XX | Contemporary Global Issues | 3 |

| Course | Title | Credits |
|--------------------------|-------------------------------|----------------|
| GCIT 3XX | Global Citizenship | 3 |
| ISEM 3XX | Integrative Seminar | 3 |
| LAW 300 | International Law | 3 |
| LAW 306 | Legal Res, Wrtg & Moot Court | 3 |
| LAW 302 | Law and Ethics | 3 |
| LAW 304 | Law, Media & Society | 3 |
| Minor Courses | | 6 |
| Credits | | 30 |
| Fourth Year | | |
| HALLMK 499 | Course HALLMK 499 Not Found | 3 |
| LAW 499 | Sr Cap:Public Policy Advocacy | 3 |
| Minor Courses | | 6 |
| Designated Law Electives | | 6 |
| LAW 411 | Senior Sem in First Amendment | 3 |
| General Electives | | 9 |
| Credits | | 30 |
| Total Credits | | 127-130 |

Psychology (BS)

Contacts

Program Director: John D. Pierce Jr., PhD

Email: John.Pierce@jefferson.edu

215-951-2556

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/humanities-sciences/degree-programs/psychology.html>)

Program Description

The scientific study of behavior, is a remarkably diverse and far-reaching field. The Bachelor of Science in Psychology is designed to provide an overview of the many areas of the field, with an emphasis on the scientific nature of psychology. The comprehensive curriculum provides students with an in-depth understanding of the principles of behavior and the scientific methods used to derive those principles. The curriculum covers the discipline from academic and applied perspectives. Students graduating from the psychology program are well prepared for graduate work in psychology or for starting careers outside of academic psychology. Students take a core group of courses that emphasize the research-based nature of psychology and select additional courses in psychology depending upon their interests and goals. At the senior level, students conduct an advanced research project and may pursue internships at local counseling centers, human-services agencies, hospitals, residential treatment centers or other locations.

Psychology graduates may choose to work in professions such as counseling, social work, education or research. Other positions available to psychology majors include human resource management, rehabilitation, community counseling and crisis intervention. The major allows students the flexibility to pursue graduate studies in related disciplines such as education, occupational therapy and management.

Learning Goals/Outcomes

- Analyze and apply the scientific process to psychology
- Locate, retrieve, critically evaluate and communicate scientific data and knowledge
- Communicate effectively and professionally

- Express expertise in specific content areas of psychology
- Display knowledge of the ethical standards, personal integrity and professional responsibilities of psychologists
- Apply principles and practice of core information and values in a psychology practice environment through internships and applied research.

Curriculum: 4 Years,121-129 Credits

| Course | Title | Credits |
|--|-------------------------------|----------------|
| First Year | | |
| FYS 100 | Pathways Seminar | 1 |
| WRIT 101 | Writing Sem I: Written Comm. | 3 |
| AMST 114 | Course AMST 114 Not Found | 3 |
| Scientific Understanding I | | 3 |
| Select one of the following courses: | | 3-4 |
| MATH 100 | College Algebra | |
| MATH 102 | Pre-Calculus | |
| MATH 103 | Applied Calculus | |
| MATH 111 | Calculus I | |
| Quantitative Reasoning I | | 3-4 |
| Select one of the following: | | 3-4 |
| Quantitative Reasoning II | | |
| General Elective | | |
| PSYC 101 | Intro to Psychology | 3 |
| PSYC 103 | Physiological Psychology | 3 |
| PSYC 213 | Developmental Psychology | 3 |
| Science Elective (Designated) | | 3-4 |
| General Elective | | 3 |
| Credits | | 34-38 |
| Second Year | | |
| ETHC 2XX | Ethics | 3 |
| GDIV 2XX | Global Diversity | 3 |
| WRIT 201 | Writing Seminar II:Multi Comm | 3 |
| ADIV 2XX | American Diversity | 3 |
| PSYC 201 | Abnormal Psychology | 3 |
| Psych. Electives (Designated) (p. 130) | | 6 |
| Minor Course | | 3-4 |
| General Electives | | 6 |
| Credits | | 30-31 |
| Third Year | | |
| GCIT 2XX | Global Citizenship | 3 |
| ISEM 3XX | Integrative Seminar | 3 |
| CGIS 300 | Contemporary Global Issues | 3 |
| STAT 220 | Stats for the Behavioral Sci | 3 |
| PSYC 322 | Research Method Behavior Sci | 3 |
| Psych. Electives (Designated) (p. 130) | | 9 |
| Minor Course | | 3-4 |
| General Electives | | 3 |
| Credits | | 30-31 |
| Fourth Year | | |
| PHIL 499 | Philosophies of the Good Life | 3 |
| PSYC 391 | Adv Research in Psychology | 3 |
| PSYC 410 | SR Colloquium in Psychology | 3 |
| Psych. Electives (Designated) (p. 130) | | 9 |
| Minor Courses | | 6-8 |
| General Electives | | 6 |
| Credits | | 30-32 |
| Total Credits | | 124-132 |

Psychology Distribution Electives

| Code | Title | Credits |
|---|-------------------------------|---------|
| Select two courses from each area: | | 24 |
| Experimental Psychology | | |
| PSYC 210 | Forensic Psychology | |
| PSYC 211 | Learning Theory | |
| PSYC 212 | Cognitive Psychology | |
| PSYC 214 | History of Psychology | |
| PSYC 215 | Sports Psychology | |
| PSYC 216 | Positive Psychology | |
| Clinical Psychology | | |
| PSYC 220 | Clinical Psychology | |
| PSYC 222 | Counseling Psychology | |
| PSYC 223 | Marriage and Family | |
| PSYC 224 | Psychology of Addiction | |
| PSYC 226 | Psychology of Trauma | |
| PSYC 227 | Introduction to Art Therapy | |
| Social/Organizational Psychology | | |
| PSYC 221 | Personality Theory | |
| PSYC 230 | Industrial Organization Psych | |
| PSYC 231 | Psychological Assessment | |
| PSYC 232 | Social Psychology | |
| PSYC 233 | Interpers Relat&Sml Grp Dynam | |
| PSYC 234 | Cultural and Social Diversity | |
| PSYC 234 Honors | | |
| Biological Bases of Behavior | | |
| PSYC 240 | Comparative Psychology | |
| PSYC 241 | Psychopharmacology | |
| PSYC 242 | Sensations and Perceptions | |
| PSYC 243 | Human Sexuality | |
| PSYC 244 | Health Psychology | |

College of Life Sciences (JCLS)

Dean: Gerald B. Grunwald, PhD | 215-503-4400
College Website (<http://Jefferson.edu/JCLS/>)

About Us

The mission of the Jefferson College of Life Sciences (JCLS) is to "Train Tomorrow's Scientific Leaders Today" by providing the highest quality undergraduate, graduate and postdoctoral education and research training in the life sciences, in order to prepare our students and fellows to make significant contributions to the progress of life science through careers including academia, industry, and government. To achieve this goal, our academic programs span both the Jefferson-East Falls Campus, home of our Department of Biological and Chemical Sciences, and the Jefferson-Center City Campus, home of our Jefferson Graduate School of Biomedical Sciences. JCLS and its faculty offering courses and programs across a wide field of basic and translational sciences, leading to the BS degree, PhD degree, the MS degree and graduate certificate programs. In addition, JCLS offers a Post baccalaureate Pre-Professional Program for candidates interested in completing their prerequisite course work for medical and professional schools. The College also coordinates postdoctoral training programs across the

campus. Additionally, JCLS, in conjunction with the Sidney Kimmel Medical College, offers a combined MD/PhD program.

Our education and training programs provide a solid foundation for our graduates, who have gone forward to continue with additional graduate and professional education and training programs or directly on to successful careers including positions at colleges and universities, pharmaceutical and biotechnology companies, healthcare settings, government agencies, and many other professional venues.

Research

Biomedical research and training at Jefferson is anchored by a large and diverse portfolio of active research programs with extensive outside grant support. That foundation, combined with Jefferson's clinical research and patient-care programs, provides opportunities for basic and translational research in a challenging, exciting and satisfying graduate training environment. Research Areas include:

- Biochemistry, Structural, & Molecular Biology
- Cell & Developmental Biology
- Genetics, Genomics & Cancer Biology
- Immunology & Microbial Pathogenesis
- Integrative Physiology
- Neuroscience

Office of Postdoctoral Affairs

The Office of Postdoctoral Affairs works with the academic departments to determine human resource needs and training opportunities for postdoctoral fellows. Jefferson postdocs create a thriving community, where postdoctoral training encompasses not only research, but also many aspects of professional development and personal growth. These include, but are not limited to:

- Working with the human resources department to implement salary and benefits guidelines
- Creating a database of postdoctoral fellows
- Coordinating career and professional development workshops
- Being a central resource for postdoctoral fellows as well as departmental administrators and PIs

Academic Programs

Undergraduate

- Biochemistry (BS) (p. 131)
- Biology (BS) (p. 132)
- Chemistry (BS) (p. 135)
- Pre-Medical Studies (BS) (p. 145)

Graduate

- Biochemistry, Structural, & Molecular Biology (PhD) (p. 132)
- Biomedical Sciences (MS) (p. 133)
- Cell & Developmental Biology (MS) (p. 134)
- Cell Biology & Regenerative Medicine (PhD) (p. 134)
- Clinical Research (MS) (p. 136)
- Forensic Biology (MS) (p. 137)
- Forensic Toxicology (MS) (p. 138)
- Genetics, Genomics & Cancer Biology (PhD) (p. 138)
- Human Genetics & Genetic Counseling (MS) (p. 140)

- Immunology & Microbial Pathogenesis (PhD) (p. 141)
- Integrative Physiology (PhD) (p. 142)
- Microbiology & Immunology (MS) (p. 143)
- Neuroscience (PhD) (p. 143)
- Pharmacology (MS) (p. 144)

Certificate

- Clinical Research & Trials: Implications (Graduate Certificate) (p. 136)
- Clinical Research: Operations (Graduate Certificate) (p. 137)
- Human Clinical Investigation: Theory (Graduate Certificate) (p. 139)
- Infectious Disease Control (Graduate Certificate) (p. 141)
- Patient-Centered Research (Graduate Certificate) (p. 144)

University Accreditations (<https://www.jefferson.edu/about/consumer-information-disclosures.html>) Biochemistry (BS)

Contacts

Program Director: Niny Z. Rao, PhD

Email: Niny.Rao@jefferson.edu

215-951-0906

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/life-sciences/degrees-programs/undergraduate-programs/biochemistry.html>)

Program Description

This active and collaborative program will prepare you for what's next. You start collecting chemical knowledge and skills through core courses and shadowing faculty and upper-level student researchers. As a sophomore, you will start helping with authentic, real-world research projects – experience many biochemistry students don't get until graduate programs. This is possible thanks to the individual attention you get in our small classes and our well-equipped research laboratories.

Learning Goals/Outcomes

- Describe laws & theories of chemistry pertaining to the properties of matter, chemical reactions and their stoichiometry, properties of gases, solution chemistry and acid/base chemistry.
- Describe chemistry of organic molecules including functional group structure and properties, structure and stereochemistry of alkanes, nucleophilic substitution and elimination reactions of alkyl halides, the structure/synthesis/reactions of alkenes, alcohols, aromatic compounds, amines, carboxylic acids, carboxylic acid derivatives and aldehydes/ketones.
- Summarize chemical thermodynamics, chemical kinetics & quantum mechanics and relate information to modern day chemistry.
- Develop language, terms & critical thinking/problem solving skills to use and understand analytical instrumentation used in chemistry and biochemistry today.

- Acquire laboratory skills, including knowledge of laboratory safety, proper laboratory behavior, and to be functional with laboratory equipment and techniques.
- Describe the chemistry of inorganic compounds, to include symmetry and group theory, molecular orbital theory, coordination chemistry, main group element chemistry and the chemistry of the solid state.
- Describe metabolism (including signaling mechanisms, basic biochemistry of DNA and RNA and mechanisms of control of gene expression), protein structure-function and laboratory techniques used in biochemical research.
- Garner information and critically analyze information (Information Literacy skills in general).
- Effectively communicate in written formats germane to the sciences.
- Successfully use their garnered research skills to probe new avenues of scientific inquiry.
- Utilize communication skills to disseminate research to both the general public and the scientific community.

Curriculum: 4 Year, 124-125 Credits

| Course | Title | Credits |
|--------------------|--|-----------|
| First Year | | |
| FYS 100 | Pathways Seminar | 1 |
| WRIT 101 | Writing Sem I: Written Comm. | 3 |
| DBTU 114 | Debating U.S. Issues | 3 |
| CHEM 103 & 103L | Chemistry I and Chemistry I Lab | 4 |
| BIOL 103 & 103L | Biology I and Biology I Lab | 4 |
| MATH 111 | Calculus I | 4 |
| MATH 112 | Calculus II | 4 |
| CHEM 104 & 104L | Chemistry II and Chemistry II Lab | 4 |
| BIOL 104 & 104L | Biology II and Biology II Lab | 4 |
| Credits | | 31 |
| Second Year | | |
| ETHC 1XX | Ethics | 3 |
| WRIT 201 | Writing Seminar II: Multi Comm | 3 |
| GDIV 1XX | Diversity | 3 |
| MATH 213 | Calculus III | 4 |
| STAT 301 | Course STAT 301 Not Found | 4 |
| PHYS 201 | Course PHYS 201 Not Found | 4 |
| PHYS 203 | Course PHYS 203 Not Found | 4 |
| CHEM 201 & 201L | Organic Chemistry I and Organic Chemistry I Lab | 4 |
| CHEM 202 & 202L | Organic Chemistry II and Organic Chemistry II Lab | 4 |
| Credits | | 33 |
| Third Year | | |
| ADIV 1XX | American Diversity | 3 |
| GCIT 2XX | Global Citizenship | 3 |
| DBTG 300 | Course DBTG 300 Not Found | 3 |
| ISEM 3XX | Integrative Seminar | 3 |
| BCHEM 312 & B312L | Course BCHEM 312 Not Found and Course BCHEM 312L Not Found | 4 |
| BCHEM 313 & B313L | Course BCHEM 313 Not Found and Course BCHEM 313L Not Found | 4 |
| CHEM 305 | Physical Chemistry I | 4 |

| Course | Title | Credits |
|----------------------|-------------------------------|----------------|
| CHEM 323 | Instrumental Meth of Analysis | 4 |
| Credits | | 28 |
| Fourth Year | | |
| HALLMK 499 | Course HALLMK 499 Not Found | 3 |
| CHEM 309 | Inorganic Chemistry | 4 |
| General Electives | | 9-10 |
| General Electives | | 12 |
| Credits | | 28-29 |
| Total Credits | | 120-121 |

Biochemistry, Structural, & Molecular Biology (PhD)

Contacts

Program Director: Edward Winter, PhD

Email: Edward.Winter@jefferson.edu

215-503-4139

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/life-sciences/degrees-programs/phd-programs/biochemistry-pharmacology.html>)

Program Description

Employs a multidisciplinary approach to train students in the rigors of experimental biomedical sciences & prepare them for independent research careers. The curriculum is designed to convey the fundamentals of biochemistry, structural biology, molecular pharmacology, cell biology and genetics.

Learning Goals & Outcomes

- The education is reinforced at the bench in advanced research laboratories broadly grouped into three research emphases: Molecular & Cellular Pharmacology, Chemical & Structural Biology and Molecular Biology & Gene Regulation.
- In addition to extensive basic equipment found in each laboratory, students have access to numerous specialized resources, including genomic and multiplex sequencing, microarray analysis, flow cytometry and cell sorting, confocal and TIRF microscopy, X-ray crystallography and macromolecular characterization (surface plasmon resonance, calorimetry, circular dichroism and fluorescence spectroscopy).
- Students graduating from this program will have the comprehensive scientific foundation and technical expertise to excel in all areas of biomedical research.

Curriculum: 5.5 Years, 180 Credits

| Course | Title | Credits |
|-------------------|------------------------------|---------|
| First Year | | |
| GC 550 | Found in Biomedical Sciences | 10 |
| GC 760 | PhD Laborator Rotation II | 3 |
| BSMB 710 | Course BSMB 710 Not Found | 1 |
| BSMB 910 | Course BSMB 910 Not Found | 3 |
| GC 770 | PhD Laboratory Rotation III | 3 |
| BSMB 525 | Course BSMB 525 Not Found | 3 |
| BSMS 613 | Course BSMS 613 Not Found | 3 |
| GC 640 | Research Ethics | 1 |
| BSMB 720 | Course BSMB 720 Not Found | 1 |

| Course | Title | Credits |
|----------------------|--------------------------------|-----------|
| BSMB 725 | Course BSMB 725 Not Found | 1 |
| General Elective | | 3 |
| GC 780 | PhD Laboratory Rotation IV | 3 |
| NS 740 | Applied Statistics in Neurosci | 2 |
| BSMB 730 | Course BSMB 730 Not Found | 1 |
| BI 920 | Research | V |
| BSMS 930 | Course BSMS 930 Not Found | 3 |
| BSMS 940 | Course BSMS 940 Not Found | 3 |
| GC 550D | Rudiments/ComputationalBio&Med | 1 |
| Credits | | 45 |
| Second Year | | |
| General Elective | | V |
| GC 730 | Planning&Writing ResearchGrant | 1 |
| BSMB 710 | Course BSMB 710 Not Found | 2 |
| BSMB 715 | Course BSMB 715 Not Found | 1 |
| BSMB 910 | Course BSMB 910 Not Found | V |
| General Elective | | V |
| BSMB 720 | Course BSMB 720 Not Found | 2 |
| BSMB 725 | Course BSMB 725 Not Found | 1 |
| BSMB 730 | Course BSMB 730 Not Found | 2 |
| BSMS 920 | Course BSMS 920 Not Found | 1 |
| BSMB 930 | Course BSMB 930 Not Found | V |
| General Elective | | V |
| Credits | | 10 |
| Total Credits | | 55 |

Course requirements are usually completed by end of second year, and students spend an average of another two to three years to complete thesis projects.

Biology (BS)

Contacts

Program Director: Jeffrey A. Klemens, PhD

Email: Jeffrey.Klemens@jefferson.edu

215-951-2825

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/life-sciences/degrees-programs/undergraduate-programs/biology.html>)

Program Description

With an innovative curriculum providing broad scientific study, the BS in Biology program allows undergraduates to explore their passions. Students receive hands-on instruction through field work in the Philadelphia area. Study abroad opportunities give students a global perspective.

Learning Goals/Outcomes

- Select and apply elementary and advanced biological principles to projects at multiple levels
- Prepare oral presentations based on laboratory work or literature review information
- Interpret and employ graphical and tabular presentations of data
- Execute and perfect laboratory skills
- Prepare comprehensive laboratory reports in manuscript format
- Synthesize content and skills in planning a research project

- Identify, summarize and compare contrasting expert viewpoints on biological subjects
- Integrate critical review of biological literature in support of a research project 232
- Recognize the diversity of professions available to persons trained in biological sciences
- Display professional conduct in a variety of academic and professional environments in the biological sciences

Curriculum: 4 Year, 122-132 Credits

| Course | Title | Credits |
|----------------------------|--|----------------|
| First Year | | |
| FYS 100 | Pathways Seminar | 1 |
| WRIT 101 | Writing Sem I: Written Comm. | 3 |
| DBTU 114 | Debating U.S. Issues | 3 |
| CHEM 103 & 103L | Chemistry I and Chemistry I Lab | 4 |
| BIOL 103 & 103L | Biology I and Biology I Lab | 4 |
| MATH 111 | Calculus I | 4 |
| MATH 112 | Calculus II | 4 |
| CHEM 104 & 104L | Chemistry II and Chemistry II Lab | 4 |
| BIOL 104 & 104L | Biology II and Biology II Lab | 4 |
| Credits | | 31 |
| Second Year | | |
| ETHC 200 | Bioethics | 3 |
| WRIT 2XX | Multimedia Comm. | 3 |
| GDIV 2XX | Global Diversity | 3 |
| CHEM 201 & 201L | Organic Chemistry I and Organic Chemistry I Lab | 4 |
| CHEM 202 | Organic Chemistry II | 4 |
| BIOL 105 | Environmental Issues | 3 |
| BIOL 207 & 207L | Principles of Genetics and Principles of Genetics Lab | 4 |
| General Elective | | 3-4 |
| Credits | | 27-28 |
| Third Year | | |
| ADIV 2XX | American Diversity | 3 |
| GCIT 2XX | Global Citizenship | 3 |
| DBTG 300 | Course DBTG 300 Not Found | 3 |
| ISEM 3XX | Integrative Seminar | 3 |
| PHYS 201 & 201L | Course PHYS 201 Not Found and Course PHYS 201L Not Found | 4 |
| PHYS 203 & 203L | Course PHYS 203 Not Found and Physics II Lab | 4 |
| BIOL 208 | Biodiversity | 3 |
| BIOL XXX | Advanced Biology Electives | 6-8 |
| General Elective | | 3 |
| Credits | | 32-34 |
| Fourth Year | | |
| PHIL 499 | Philosophies of the Good Life | 3 |
| STAT 301 | Course STAT 301 Not Found | 3 |
| SCI 402 | Science Seminar | 3 |
| Advanced Biology Electives | | 9-12 |
| General Electives | | 9-12 |
| Credits | | 27-33 |
| Total Credits | | 117-126 |

Biomedical Sciences (MS)

Contacts

Program Director: Charles P. Scott, PhD

Email: Charles.Scott@jefferson.edu

215-503-4569

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/life-sciences/degrees-programs/master-programs/biomedical-sciences.html>)

Program Description

The Master of Science Program in Biomedical Sciences prepares graduates for positions in the pharmaceutical/biotechnology industry or medical toxicology, such as:

- Managers of clinical laboratories
- Consultants
- Research associates
- Research scientists
- Graduates of the program have been accepted into PhD and professional doctoral programs.

Curriculum: 1.5- 4 Years, 40 Credits

- Full-Time and Part-Time options

| Code | Title | Credits |
|------------------------------|--------------------------------|--------------|
| Core Courses | | |
| BI 550 | Topics-Medical Biochem | 3 |
| GC 660 | Statistical Methods | 3 |
| GC 715 | MS Biomed Sciences Seminar | 1 |
| GC 680 | Lab Techniq-Molec Bio | 3 |
| GC 560 | Data Visualization | 3 |
| BI 870 | Research - MSBS | 1-6 |
| BI 880 | Master's Research-BI | 1-6 |
| BI 890 | Research - MSBS | 1-6 |
| Designated Electives | | 15-17 |
| Management Courses | | |
| Select two of the following: | | 4-6 |
| GC 510 | Database Design & Mgmt | |
| GC 525 | Information Systems Management | |
| GC 600 | Managerial and Teamwork Skills | |
| GC 605 | Performance Improvement | |
| GC 610 | Strategic Management | |
| GC 617 | ManagPharm DrugDevelopProjects | |
| GC 620 | Fund of Fin Mgmt. | |
| GC 621 | Biotechnology Venture Mgmt | |
| GC 635 | Intro to Clin Trials Mgmt | |
| GC 636 | PrinCarMgmt-DiverseBMCareers | |
| Total Credits | | 35-54 |

Cell & Developmental Biology (MS)

Contacts

Program Director: Aleksandra Snyder, PhD

Email: Aleksandra.Snyder@jefferson.edu
215-503-1573

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/life-sciences/degrees-programs/master-programs/cell-developmental-biology.html>)

Program Description

This program consists of a core basic science curriculum in cell and developmental biology, supplemented with elective courses suited to individual career interests in the basic sciences or in management. Students in our program receive training in theoretical, experimental and practical aspects of normal cell development as well as abnormal aspects of these processes, which may cause birth defects or disease.

Learning Goals/Outcomes

- Prepares its graduates for positions in research and development in academia, industry and government
- Graduates may be employed as basic research scientists in academic institutions and industrial positions, or may go on to further study in PhD and professional doctoral programs.
- Graduates of the program have been accepted into PhD and professional doctoral programs.

Curriculum: 1.5- 4 Years, 40 Credits

- Full-Time and Part-Time options

| Code | Title | Credits |
|------------------------------|--------------------------------|---------|
| Core Courses | | |
| BI 550 | Topics-Medical Biochem | 3 |
| GC 660 | Statistical Methods | 3 |
| CB 615 | Devel. Biol I-Embryology | 3 |
| CB 560 | Principles of Cell Biology | 3 |
| CB 635 | GeneEnv Intractns BirthDef&Dis | 3 |
| BI 870 | Research - MSBS | 1-6 |
| BI 880 | Master's Research-BI | 1-6 |
| BI 890 | Research - MSBS | 1-6 |
| Designated Electives | | 15-17 |
| Management Courses | | |
| Select two of the following: | | 4-6 |
| GC 510 | Database Design & Mgmt | |
| GC 525 | Information Systems Management | |
| GC 600 | Managerial and Teamwork Skills | |
| GC 605 | Performance Improvement | |
| GC 610 | Strategic Management | |
| GC 617 | ManagPharm DrugDevelopProjects | |
| GC 620 | Fund of Fin Mgmt. | |
| GC 621 | Biotechnology Venture Mgmt | |

| Code | Title | Credits |
|----------------------|------------------------------|--------------|
| GC 635 | Intro to Clin Trials Mgmt | |
| GC 636 | PrinCarMgmt-DiverseBMCareers | |
| Total Credits | | 37-56 |

Cell Biology & Regenerative Medicine (PhD)

Contacts

Program Director: Nancy J. Philp, PhD

Email: Nancy.Philp@jefferson.edu
215-503-7854

Program Director: Makarand V. Risbud, PhD

Email: Makarand.Risbud@jefferson.edu
215-955-1063

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/life-sciences/degrees-programs/phd-programs/cell-biology.html>)

Program Description

The PhD Graduate Program in Cell Biology & Regenerative Medicine (CBRM) provides students with a background, training and experience that are necessary to launch careers as independent scientific investigators in the field of cancer cell biology, systems biology, computational medicine, matrix biology, neuro-degenerative disorders, vision, mitochondrial metabolism and pathology.

CBRM seeks students with a strong interest and background in science and engineering, particularly cell biology, biochemistry, developmental biology and bioengineering. Students are offered comprehensive coursework, seminars, journal clubs and research discussion groups to further enrich their academic experience.

The Graduate Program boasts an outstanding faculty and state-of-the-art research facilities, which offers students a wide range of advanced research opportunities. Students' research and education is supported through NIH training grants, endowed fellowships and investigator-initiated research grants. Graduates of the CBRM program have successfully pursued career options in both academia and industry, with several obtaining faculty positions after post-doctoral training. There are five major areas within the program:

- Cancer Biology
- Computational Biology & Systems Biology
- Matrix Biology, Musculoskeletal & Connective Tissue
- Mitochondrial Metabolism & Pathology
- Neurodegenerative Disorders & Vision
- Tissue Engineering & Regenerative Medicine

Curriculum: 3 Years, 180 Credits

| Course | Title | Credits |
|--------------------|------------------------------|---------|
| First Year | | |
| Certificate | | |
| GC 550 | Found in Biomedical Sciences | 10 |
| GC 640 | Research Ethics | 1 |
| GC 760 | PhD Laborator Rotation II | 3 |
| CB 616 | Current Topics-MCB I | 1 |

| Course | Title | Credits |
|----------------------|--------------------------------|-----------|
| CB 710 | Seminar | 1 |
| CB 910 | Research | V |
| GC 780 | PhD Laboratory Rotation IV | 3 |
| CB 626 | Current Topics-MCB II | 1 |
| CB 720 | Seminar | 1 |
| CB 920 | Research | V |
| General Elective | | 3 |
| GC 645 | Genomics & Bioinformatics | 3 |
| GC 780 | PhD Laboratory Rotation IV | 3 |
| CB 636 | Current Topics-MCB III | 1 |
| CB 730 | Seminar | 1 |
| GC 550D | Rudiments/ComputationalBio&Med | 1 |
| CB 930 | Research | V |
| CB 940 | Research | V |
| Credits | | 33 |
| Second Year | | |
| CB 616 | Current Topics-MCB I | 1 |
| CB 710 | Seminar | 1 |
| CB 910 | Research | V |
| TE 624 | Extracellular Matrix | 2 |
| NS 740 | Applied Statistics in Neurosci | 3 |
| CB 626 | Current Topics-MCB II | 1 |
| General Elective | | V |
| CB 720 | Seminar | 1 |
| CB 920 | Research | V |
| CB 920 | Research | V |
| CB 930 | Research | V |
| CB 940 | Research | V |
| TE 531 | Biological Basis of TE & RM | 2 |
| Credits | | 11 |
| Total Credits | | 44 |

Chemistry (BS)

Contacts

Program Director: Niny Z. Rao, PhD

Email: Niny.Rao@jefferson.edu

215-951-0906

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/life-sciences/degrees-programs/undergraduate-programs/chemistry.html>)

Program Description

You will be a sought-after candidate for scientific careers or graduate programs, thanks to professional research and presentation experience, and close faculty mentorship.

This active and collaborative program will prepare you for what's next. You start collecting chemical knowledge and skills through core courses and shadowing faculty and upper-level student researchers. As a sophomore, you will start helping with authentic, real-world research projects – experience many biochemistry students don't get until graduate programs. This is possible thanks to the individual attention you get in our small classes and our well-equipped research laboratories.

Learning Goals/Outcomes

- Describe the laws and theories of chemistry pertaining to the properties of matter, chemical reactions and their stoichiometry, properties of gases, solution chemistry and acid/base chemistry.
- Describe the chemistry of organic molecules including functional group structure and properties, structure and stereochemistry of alkanes, nucleophilic substitution and elimination reactions of 233 alkyl halides, the structure/synthesis/reactions of alkenes, alcohols, aromatic compounds, amines, carboxylic acids, carboxylic acid derivatives and aldehydes/ketones.
- Summarize chemical thermodynamics, chemical kinetics, and quantum mechanics and relate this information to modern day chemistry.
- Develop the language, terms and critical thinking/problem solving skills to use and understand analytical instrumentation used in chemistry and biochemistry today.
- Acquire the necessary laboratory skills, including knowledge of laboratory safety, proper laboratory behavior, and to be functional with laboratory equipment and techniques.
- Describe the chemistry of inorganic compounds, to include symmetry and group theory, molecular orbital theory, coordination chemistry, main group element chemistry and the chemistry of the solid state.
- Describe metabolism (including signaling mechanisms, basic biochemistry of DNA and RNA and mechanisms of control of gene expression), protein structure-function and laboratory techniques used in biochemical research.
- Garner information and critically analyze information (Information Literacy skills in general).
- Effectively communicate in written formats germane to the sciences.
- Successfully use their garnered research skills to probe new avenues of scientific inquiry.

Curriculum: 4 Years, 126-129 Credits

| Course | Title | Credits |
|--------------------|--|-----------|
| First Year | | |
| FYS 100 | Pathways Seminar | 1 |
| WRIT 101 | Writing Sem I: Written Comm. | 3 |
| DBTU 114 | Debating U.S. Issues | 3 |
| CHEM 103 & 103L | Chemistry I and Chemistry I Lab | 4 |
| BIOL 103 & 103L | Biology I and Biology I Lab | 4 |
| MATH 111 | Calculus I | 4 |
| MATH 112 | Calculus II | 4 |
| CHEM 104 & 104L | Chemistry II and Chemistry II Lab | 4 |
| BIOL 104 & 104L | Biology II and Biology II Lab | 4 |
| Credits | | 31 |
| Second Year | | |
| ETHIC 2XX | Ethics | 3 |
| WRIT 201 | Writing Seminar II: Multi Comm | 3 |
| GDIV 1XX | Global Diversity | 3 |
| MATH 331 | Math Methods in Chem, Phys & Eng | 3 |
| PHYS 201 & 201L | Course PHYS 201 Not Found and Course PHYS 201L Not Found | 4 |

| Course | Title | Credits |
|------------------------------|--|----------------|
| PHYS 203 & 203L | Course PHYS 203 Not Found and Physics II Lab | 4 |
| CHEM 201 & 201L | Organic Chemistry I and Organic Chemistry I Lab | 4 |
| CHEM 202 & 202L | Organic Chemistry II and Organic Chemistry II Lab | 4 |
| General Electives | | 6 |
| Credits | | 34 |
| Third Year | | |
| ADIV 1XX | American Diversity | 3 |
| GCIT 2XX | Global Citizenship | 3 |
| CGIS 300 | Contemporary Global Issues | 3 |
| ISEM 3XX | Integrative Seminar | 3 |
| BIOC 312 & 312L | Course BIOC 312 Not Found and Course BIOC 312L Not Found | 4 |
| BIOC 313 & 313L | Course BIOC 313 Not Found and Course BIOC 313L Not Found | 4 |
| CHEM 323 | Instrumental Meth of Analysis | 4 |
| CHEM 305 | Physical Chemistry I | 4 |
| CHEM 306 | Physical Chemistry II | 4 |
| Credits | | 32 |
| Fourth Year | | |
| PHIL 499 | Philosophies of the Good Life | 3 |
| CHEM 309 | Inorganic Chemistry | 4 |
| Advanced Chemistry Electives | | 12-14 |
| General Electives | | 9 |
| Credits | | 28-30 |
| Total Credits | | 125-127 |

Clinical Research & Trials: Implications (Graduate Certificate)

Contacts

Program Director: Melissa McCarey, MPH

Email: melissa.mccarey@jefferson.edu
215-503-7417

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/life-sciences/degrees-programs/graduate-certificates/research-trials.html>)

Program Description

The Certificate Program in Clinical Research & Trials: Implementation provides the core competencies and skills needed by professionals in the field of clinical trials. The Program trains individuals in administration, coordination and management of clinical research studies focused on developing new drugs, medical devices and treatment regimens. This certificate is complementary to the certificate in Human Clinical Investigation: Theory.

Learning Goals & Outcomes

- Introduce the roles and responsibilities of investigators and sponsors
- Educate on the regulations governing clinical research
- Train for managing clinical trials

Curriculum: 1 Year, 15 Credits

| Code | Title | Credits |
|------------------------|---|-----------|
| Core Curriculum | | |
| GC 625 or GC 617 | Drug Development Essentials ManagPharm DrugDevelopProjects | 2 |
| GC 630 | Fund-Clinical Trials ¹ | 3 |
| GC 635 | Intro to Clin Trials Mgmt | 2 |
| GC 660 | Statistical Methods | 3 |
| Designated Electives | | 5 |
| Total Credits | | 15 |

¹ GC 660 Statistical Methods is pre-req

Clinical Research (MS)

Contacts

Program Director: Melissa McCarey, MPH

Email: melissa.mccarey@jefferson.edu
215-503-7417

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/life-sciences/degrees-programs/master-programs/clinical-research-MS.html>)

Program Description

Created to prepare students for the wide array of career opportunities in the clinical research industry. This program is well suited for career changers with a background in life, physical or clinical sciences that would like to break into the field of clinical research. It is also appropriate for individuals already in the industry and looking for additional graduate-level training.

The field of clinical research is rapidly expanding and knowledgeable professionals are needed to coordinate, manage, and administer clinical trials. This master of science degree will provide students with the foundation needed to be successful in the field of clinical research.

Learning Goals/Outcomes

- Understand experimental design, statistical analysis and interpretation, and regulatory and ethical issues pertaining to human clinical research and trials
- Read, understand, & critique published reports of clinical trials
- Acquire management skills that will enable them to successfully manage multidisciplinary teams involved in clinical research projects
- Prepare for employment in the pharmaceutical industry, as well as academic and hospital clinical research settings.

Curriculum: 2 Years, 36 Credits

| Code | Title | Credits |
|---------------------|------------------------------|---------|
| Core Courses | | |
| GC 660 | Statistical Methods | 3 |
| GC 630 | Fund-Clinical Trials | 3 |
| GC 635 | Intro to Clin Trials Mgmt | 2 |
| GC 637 | Adv Clin Trial Mgmt: Careers | 2 |
| GC 640 | Research Ethics | 1 |

| Code | Title | Credits |
|------------------------------|--------------------------------|--------------|
| GC 690 | Reg Issu in Human Subjects Res | 2 |
| Management Courses | | |
| Select two of the following: | | 4-5 |
| GC 720 | Scientific Writing | |
| GC 617 | ManagPharm DrugDevelopProjects | |
| GC 600 | Managerial and Teamwork Skills | |
| GC 615 | Grants & Contracts Management | |
| GC 510 | Database Design & Mgmt | |
| General Electives | | 12 |
| Total Credits | | 29-30 |

Clinical Research: Operations (Graduate Certificate)

Contacts

Program Director: Melissa McCarey, MPH

Email: melissa.mccarey@jefferson.edu

215-503-7417

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/life-sciences/degrees-programs/graduate-certificates/clinical-trials-operations.html>)

Program Description

The Certificate Program in Clinical Research: Operations trains individuals in the administration, coordination and management of clinical research studies.

Clinical research is a rapidly expanding field, with diverse employment opportunities in settings such as universities, hospital systems, and the pharmaceutical industry. Human subjects research is complex and requires an understanding of funding sources, regulatory issues, project management, study design, and data analysis

Learning Goals & Outcomes

This program is designed to introduce students to careers in Clinical Research.

- The Certificate in Clinical Trials: Operations will provide students with foundational knowledge of the clinical trials process.
- Introduce students to project, financial, and data management of clinical trials.
- Provide education on the regulations and ethical issues that surround human subject research

Curriculum: 1 Year, 18 Credits

| Code | Title | Credits |
|------------------------|-------------------------------|---------|
| Core Curriculum | | |
| GC 510 | Database Design & Mgmt | 2 |
| GC 615 | Grants & Contracts Management | 2 |
| GC 620 | Fund of Fin Mgmt. | 3 |
| or GC 631 | CompEff & PtCent OutcomesRes | |
| GC 635 | Intro to Clin Trials Mgmt | 2 |
| GC 640 | Research Ethics | 1 |

| Code | Title | Credits |
|------------------------------|-----------------------------------|-----------|
| GC 660 | Statistical Methods | 3 |
| or PBH 504 | Fundamentals of Stat for Rsrch | |
| GC 690 | Reg Issu in Human Subjects Res | 2 |
| Elective | | |
| Select one of the following: | | 3 |
| AHE 509 | Epi & Evidnc Outcomes Research | |
| GC 650 | EconAnal of HealthcareInterven | |
| GC 630 | Fund-Clinical Trials ¹ | |
| Total Credits | | 18 |

¹ GC 660 Statistical Methods is pre-req

Forensic Biology (MS)

Contacts

Program Director: Thomas Walsh, MSFS

Email: Thomas.Walsh@cfsre.org

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/life-sciences/degrees-programs/master-programs/forensic-biology.html>)

Program Description

Full-time, two-year program with courses taught at both the Jefferson Center City campus as well as at CFSRE laboratory in Willow Grove, PA. Designed to position students for advancement and professional development in the specific field of forensic biology.

One of the aspects, which sets our forensic biology program apart from other universities, is that students will be working adjacent to a fully functioning, ISO-17025 accredited, private DNA Laboratory. Instead of spending the duration of the program in a classroom, Jefferson students will be learning within an actual forensic laboratory and working alongside practicing scientists who serve as faculty and mentors. This teaching setting allows our students to engage first-hand in crime lab operation, offering an unparalleled educational experience.

Curriculum: 2 Years, 40 Credits ¹

| Course | Title | Credits |
|--------------------------------|--------------------------------|-----------|
| First Year | | |
| FB 605 | ForenSerology & Immunology Lec | 2 |
| FB 606 | ForenSerology & Immunology Lab | 1 |
| Management or General Elective | | 3 |
| GE 637 | Human Genetics | 3 |
| FB 610 | Legal Procedure & Ethics | 1 |
| FM 607 | Course FM 607 Not Found | 1 |
| FB 705 | Forensic Genetics Lecture | 3 |
| FM 706 | Course FM 706 Not Found | 1 |
| Management or General Elective | | 2 |
| FB 890 | Research - MSFB | 2 |
| GC 660 | Statistical Methods | 3 |
| Credits | | 22 |
| Second Year | | |
| FB 715 | Advanced Forensic Genetics | 3 |
| FB 716 | Advanced Forensic Genetics Lab | 1 |
| FB 620 | Forensic Science Forum | 1 |
| FB 870 | Research - MSFB | 1 |

| Course | Title | Credits |
|--------------------------------|--------------------------------|-----------|
| FB 717 | Journal Club in Foren Genetics | 1 |
| Management or General Elective | | 3 |
| FB 880 | Master's Thesis Research | 1 |
| Management or General Elective | | 3 |
| FB 830 | Clerkship - MSFB | 1 |
| FB 890 | Research - MSFB | 1 |
| Credits | | 16 |
| Total Credits | | 38 |

¹ Minimum two Prof Develop Courses (Designated)
 Minimum two Elective Courses (Designated)

Forensic Toxicology (MS)

Contacts

Program Director: Barry K. Logan, PhD, F-ABF

Email: Barry.Logan@Jefferson.edu

Program Director: Alex Krotulski, PhD

Email: Alex.Krotulski@jefferson.edu

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/life-sciences/degrees-programs/master-programs/forensic-toxicology.html>)

Program Description

The MS Program in Forensic Toxicology is a unique program designed to position students for advancement and professional development in the specific field of forensic toxicology. This is a full-time, two-year program with courses taught at both the Thomas Jefferson University campus and CFSRE's Willow Grove, PA location.

Learning Goals/Outcomes

This partnership will provide our students with expertise in all areas of toxicology, including:

- Workplace drug testing
- Postmortem analysis
- Human performance toxicology
- Legal procedure and ethics
- Business & management coursework

Curriculum: 2 Year, 40 Credits ¹

| Course | Title | Credits |
|--------------------------------|--------------------------------|-----------|
| First Year | | |
| FT 605 | Analytical Forensic Toxicology | 3 |
| FT 606 | Analytical ForensToxicologyLab | 1 |
| Management or General Elective | | 2 |
| FT 705 | AdvAnalytical ForensToxicology | 3 |
| FT 706 | Adv Analytical ForensicTox Lab | 1 |
| FT 610 | Legal Procedure & Ethics | 1 |
| PR 525 | Princ-Clin Pharmacology | 3 |
| Management or General Elective | | 2 |
| FT 880 | Research - MSFT | 1 |
| GC 660 | Statistical Methods | 3 |
| Credits | | 20 |
| Second Year | | |
| FT 715 | Interpretive Foren Toxicology | 3 |

| Course | Title | Credits |
|--------------------------------|--|-----------|
| FT 716 | Interpretive ForToxicology Lab | 1 |
| FT 880 | Research - MSFT (Management or General Elective) | 3 |
| FT 880 | Research - MSFT | 1 |
| FT 620 | Forensic Science Forum | 1 |
| Management or General Elective | | 3 |
| FT 880 | Research - MSFT | 1 |
| Management or General Elective | | 3 |
| FT 810 | Clerkship - MSFT | 3 |
| FT 815 | Regulatorylss in Forensic Tox | 1 |
| Credits | | 20 |
| Total Credits | | 40 |

¹ Minimum two Prof Develop Courses (Designated)
 Minimum two Elective Courses (Designated)

Genetics, Genomics & Cancer Biology (PhD)

Contacts

Program Director: Lucia R. Languino, PhD

Email: Lucia.Languino@jefferson.edu

215-503-3442

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/life-sciences/degrees-programs/phd-programs/genetics.html>)

Program Description

The PhD Program in Genetics, Genomics & Cancer Biology provides aspiring students with the background, training and experience necessary to launch careers as independent scientific investigators and scholars in the field of molecular genetics of disease, genomics and cancer biology.

The Program is designed to take a multidisciplinary approach to the field by providing the student with a strong basic knowledge of genetics, biochemistry, cell biology and molecular biology, with additional exposure to other areas of related interest. Additionally, the Program provides sufficient flexibility so that. graduating students can pursue research careers in either an academic or industrial setting.

Typical Areas of Research Include

- functional genomics and epigenetics
- analysis of the human genome
- genetics of cancer susceptibility
- genetics of the immune system
- molecular genetics of animal models of human disease
- molecular genetics of hematopoietic neoplasias and solid tumors
- mechanisms of altered growth regulation by oncogenes and tumor suppressor genes
- transcriptional regulation
- chromatin organization and the control of gene expression
- translational research
- molecular therapeutics and personalized medicine

Curriculum: 5.5 Years, 180 Credits

| Course | Title | Credits |
|-------------------------|--------------------------------|-----------|
| First Year | | |
| GC 550 | Found in Biomedical Sciences | 10 |
| GE 710 | Current Literature in GGCB I | 1 |
| GE 715 | Seminar I | 1 |
| GC 760 | PhD Laborator Rotation II | 3 |
| GE 910 | Research | V |
| GC 640 | Research Ethics | 1 |
| GE 637 | Human Genetics | 2 |
| GE 720 | Current Literature in GGCB II | 1 |
| GE 725 | Seminar II | 1 |
| GC 770 | PhD Laboratory Rotation III | 3 |
| GE 612 | Adv Top in Molecular Genetics | 2 |
| GE 730 | Current Literature in GGCB III | 1 |
| GE 725 | Seminar II | 1 |
| GC 780 | PhD Laboratory Rotation IV | 3 |
| NS 740 | Applied Statistics in Neurosci | 2 |
| GE 920 | Research | V |
| GE 930 | Research | V |
| GE 940 | Research | V |
| GC 550D | Rudiments/ComputationalBio&Med | 1 |
| Credits | | 33 |
| Second Year | | |
| GE 636 | Tumor Cell Signaling&CellCycle | 3 |
| General Elective | | 3 |
| GC 730 | Planning&Writing ResearchGrant | 1 |
| GE 710 | Current Literature in GGCB I | 1 |
| GE 715 | Seminar I | 1 |
| GE 910 | Research | V |
| GE 720 | Current Literature in GGCB II | 1 |
| GE 725 | Seminar II | 1 |
| GE 730 | Current Literature in GGCB III | 1 |
| GE 735 | Seminar III | 1 |
| GE 920 | Research | V |
| GE 930 | Research | V |
| GE 940 | Research | V |
| Credits | | 13 |
| Third Year | | |
| GE 710 | Current Literature in GGCB I | 1 |
| GE 715 | Seminar I | 1 |
| GE 910 | Research | V |
| Preliminary Exam | | |
| GE 720 | Current Literature in GGCB II | 1 |
| GE 725 | Seminar II | 1 |
| GE 730 | Current Literature in GGCB III | 1 |
| GE 735 | Seminar III | 1 |
| GE 920 | Research | V |
| GE 930 | Research | V |
| GE 940 | Research | V |
| Credits | | 6 |
| Fourth Year | | |
| Thesis | | |
| Credits | | 0 |
| Fifth Year | | |
| Thesis | | |
| Credits | | 0 |
| Total Credits | | 52 |

Human Clinical Investigation: Theory (Graduate Certificate)

Contacts

Program Director: Carol L. Beck, PhD

Email: Carol.Beck@Jefferson.edu
215-503-6539

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/life-sciences/degrees-programs/graduate-certificates/clinical-investigation.html>)

Program Description

Clinicians trained in the basics of human clinical investigation are needed to design and initiate clinical trials in academic medicine and in the pharmaceutical industry. This certificate focuses on the theory rather than the implementation. This certificate program is the didactic component of the MS Pharmacology Program, Human Clinical Investigation track. No thesis is required for the certificate.

Learning Goals & Outcomes

The Certificate Program in Human Clinical Investigation: Theory provides the core competencies and skills needed for those interested in clinical research or careers in academic medicine. This program is designed for clinicians, but could be taken by others interested in understanding the theory behind clinical trial design.

- Provide the theory behind the design of human clinical studies and appropriate design and use of databases
- Educate on the ethics and regulations governing clinical research
- Provide a background in statistics and epidemiology necessary for human clinical investigation

Curriculum: 17 Credits

| Code | Title | Credits |
|------------------------------|--------------------------------------|-----------|
| Core Curriculum | | |
| GC 660 | Statistical Methods | 3 |
| GC 630 | Fund-Clinical Trials ¹ | 3 |
| MI 580 | Principles-Epidemiology ¹ | 3 |
| GC 510 | Database Design & Mgmt | 2 |
| GC 640 | Research Ethics | 1 |
| GC 690 | Reg Issu in Human Subjects Res | 2 |
| Elective | | |
| Select one of the following: | | 3 |
| PR 525 | Princ-Clin Pharmacology | |
| GC 650 | EconAnal of HealthcareInterven | |
| GC 654 | Pharmacoepidemiology ² | |
| PR 810 | Clerkship - MSPR | |
| & PR 820 | and Master's Clerkship-PR | |
| & PR 830 | and Clerkship - MSPR | |
| Total Credits | | 17 |

¹ GC 660 Statistical Methods is pre-req

² GC 660 Statistical Methods, MI 580 Principles-Epidemiology are pre-requisites

Human Genetics & Genetic Counseling (MS)

Contacts

Program Director: Rachael Brandt, PhD, MS, LCGC

Email: Rachael.Brandt@jefferson.edu

Program Director: Zohra Ali-Khan Catts, MS, LCGC

Email: Zohra.Ali-KhanCatts@jefferson.edu

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/life-sciences/degrees-programs/master-programs/genetic-counseling.html>)

Program Description

The Human Genetics and Genetic Counseling MS program will provide students integrative education and training to become compassionate and knowledgeable genetic counselors.

The program in Human Genetics & Genetic Counseling is a participant in the Genetic Counseling Admissions Match through National Matching Services (NMS).

Learning Goals/Outcomes: Genetics Expertise & Analysis

- Demonstrate & utilize a understanding and knowledge of genetics and genomics core concepts and principles
- Integrate knowledge of psychosocial aspects of conditions with a genetic component to promote client well- being
- Construct relevant, targeted and comprehensive personal and family histories and pedigrees
- Identify, assess, facilitate, and integrate genetic testing options in genetic counseling practice
- Assess individuals' and their relatives' probability of conditions with a genetic component or carrier status based on their pedigree, test result(s), and other pertinent information
- Demonstrate skills necessary to manage genetic counseling case
- Critically assess genetic/genomic, medical and social science literature and information

Learning Goals/Outcome: Psychosocial and Counseling Skills

- Establish a mutually agreed upon genetic counseling agenda with the client
- Employ active listening and interviewing skills to identify, assess, and empathically respond to stated and emerging concerns
- Use range of genetic counseling skills & models to facilitate informed decision-making & adaptation to genetic risks or conditions
- Promote client-centered, informed, non-coercive and value-based decision-making
- Understand how to adapt genetic counseling skills for varied service delivery model

- Apply genetic counseling skills in a culturally responsive and respectful manner to all clients

Learning Goals/Outcome: Education

- Educate clients about a wide range of genetics and genomics information based on their needs, their characteristics and the circumstances of the encounter
- Write concise and understandable clinical and scientific information for audiences of varying educational backgrounds
- Give a presentation on genetics, genomics and genetic counseling issue

Learning Goals/Outcome: Prof Development & Practice

- Use Ethical, legal, philosophical principles & values
- Demonstrate understanding of the research process
- Advocate for individuals, families, communities profession
- Demonstrate a self-reflective, evidenced-based and current approach to genetic counseling practice
- Understand the methods, roles and responsibilities of the process of clinical supervision of trainee
- Establish and maintain professional interdisciplinary relationships in both team and one-on-one settings, and recognize one's role in the larger healthcare system

Curriculum: 2 Years, 64 Credits

| Course | Title | Credits |
|--------------------|--|-----------|
| First Year | | |
| HG 501 | Intro to Genetic Counseling | 2 |
| GE 636 | Tumor Cell Signaling&CellCycle | 3 |
| CB 615 | Devel. Biol I-Embryology | 3 |
| HG 670 | ClinCardiovascular Genetics | 1 |
| HG 601 | Medical Genetics | 2 |
| HG 550 | ClinApp for Genetic Counsel I | 2 |
| HG 701 | Clinical Lab/Rotation | 1 |
| GE 651 | Pathobiology of Cancer | 2 |
| HG 680 | Clinical Cancer Genetics | 2 |
| HG 602 | Medical Genetics II | 2 |
| HG 502 | Psychosocial Iss in Gen Couns | 4 |
| HG 551 | Clinical Applications II | 1 |
| HG 702 | Clinical/Lab Rotation (1 day/week - Prenatal) | 1 |
| CB 635 | GeneEnv Intractns BirthDef&Dis | 3 |
| HG 611 | Metabolic Genetics I | 2 |
| STAT 220 | Stats for the Behavioral Sci | 2 |
| HG 570 | Res Des & Method for Gen Couns | 2 |
| HG 552 | Clinical Applications III | 1 |
| HG 703 | Clinical/Lab Rotation (2 days/wk - Cancer) | 2 |
| HG 511 | Gen Counseling Theory & Prac | 2 |
| HG 580 | Prac Issues in Gen Counseling | 1 |
| HG 801 | Thesis I | 2 |
| HG 704 | Clinical/Lab Rotation (3 days/wk - Peds) | 3 |
| Credits | | 46 |
| Second Year | | |
| HG 802 | Thesis II | 2 |
| HG 531 | Gen Couns Workshop & Sem I | 2 |
| HG 512 | Gen Couns Theory & Practice II | 2 |
| HG 532 | Gen Couns Workshop & Sem II | 2 |

| Course | Title | Credits |
|---------------------------|------------------------------------|-----------|
| HG 690 | Gen Basis of Neur & Psych Dis | 1 |
| HG 704 | Clinical/Lab Rotation (3 days/wk) | 3 |
| HG 803 | Thesis III | 2 |
| HG 532 | Gen Couns Workshop & Sem II | 2 |
| HG 705 | Clinical/Lab Rotation (3 days/wk) | 3 |
| Supplemental | | |
| Thesis | | |
| HG 706 | Clinical/Lab Rotation | 3 |
| Curriculum Review Modules | | |
| Credits | | 22 |
| Total Credits | | 68 |

Immunology & Microbial Pathogenesis (PhD)

Contacts

Program Director: Fabienne Paumet, PhD

Email: Fabienne.Paumet@jefferson.edu

215-503-8567

Program Director: Christopher M. Snyder, PhD

Email: Christopher.Snyder@jefferson.edu

215-503-2543

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/life-sciences/degrees-programs/phd-programs/immunology.html>)

Program Description

The PhD Program in Immunology & Microbial Pathogenesis provides aspiring students with the background, training and experience necessary to launch careers as independent scientific investigators in the fields of immunology, microbiology, biochemistry, cell biology and molecular biology.

- A multidisciplinary approach to the field by providing the student with a strong, basic knowledge of immunology, microbiology, biochemistry, cell biology and molecular biology, with additional exposure to other areas of related interest.

The goal of this program is to provide aspiring students with the background, training and experience necessary to launch careers as independent scientific investigators.

Curriculum: 5.5 Years, 180 Credits

| Course | Title | Credits |
|-------------------|--------------------------------|---------|
| First Year | | |
| GC 550 | Found in Biomedical Sciences | 10 |
| IMP 710 | Seminar in Micro & Immunology | 1 |
| GC 760 | PhD Laborator Rotation II | 3 |
| IMP 910 | IMP Research | V |
| IMP 505A | Fundamentals of Immunology | 2 |
| IMP 600A | BacteriologyMycology&Parasitol | 1 |
| IMP 720 | Seminar | 1 |
| IMP 722 | Current Literature in IMP II | 1 |
| GC 770 | PhD Laboratory Rotation III | 3 |
| GC 640 | Research Ethics | 1 |
| IMP 505B | Immune System in Health&Diseas | 2 |
| IMP 600B | Virology | 1 |
| IMP 730 | Seminar | 1 |

| Course | Title | Credits |
|----------------|--------------------------------|-----------|
| GC 550D | Rudiments/ComputationalBio&Med | 1 |
| IMP 732 | Current Literature in IMP III | 1 |
| GC 780 | PhD Laboratory Rotation IV | 3 |
| NS 740 | Applied Statistics in Neurosci | 2 |
| IMP 920 | IMP Research | V |
| IMP 930 | IMP Research | V |
| IMP 940 | Research | V |
| Credits | | 34 |

Second Year

| | | |
|--------------------|---|---|
| IMP 530 | Infection & Immunity | 3 |
| GC 730 | Planning&Writing ResearchGrant | 1 |
| IMP 710 | Seminar in Micro & Immunology | 1 |
| IMP 712 | Current Literature in IMP I | 1 |
| IMP 910 | IMP Research | V |
| IMP 720 | Seminar | 1 |
| IMP 722 | Current Literature in IMP II | 1 |
| General Electives | | |
| IMP 730 | Seminar | 1 |
| IMP 732 | Current Literature in IMP III | 1 |
| IMP 920 | IMP Research | V |
| IMP 930 | IMP Research | V |
| IMP 940 | Research | V |
| IMP 530 or IMP 605 | Infection & Immunity or AdvCellular/MolecImmuno | 3 |
| IMP 710 | Seminar in Micro & Immunology | 1 |
| IMP 712 | Current Literature in IMP I | 1 |
| IMP 910 | IMP Research | V |

Comprehensive Exam

| | | |
|---------|-------------------------------|---|
| IMP 720 | Seminar | 1 |
| IMP 722 | Current Literature in IMP II | 1 |
| IMP 730 | Seminar | 1 |
| IMP 732 | Current Literature in IMP III | 1 |
| IMP 920 | IMP Research | V |
| IMP 930 | IMP Research | V |
| IMP 940 | Research | V |

Comprehensive Examination

Credits **20**

Third Year

| | | |
|---------|-------------------------------|---|
| IMP 710 | Seminar in Micro & Immunology | 1 |
| IMP 712 | Current Literature in IMP I | 1 |
| IMP 910 | IMP Research | V |
| IMP 720 | Seminar | 1 |
| IMP 722 | Current Literature in IMP II | 1 |
| IMP 730 | Seminar | 1 |
| IMP 732 | Current Literature in IMP III | 1 |
| IMP 920 | IMP Research | V |
| IMP 930 | IMP Research | V |
| IMP 940 | Research | V |

Credits **6**

Total Credits **60**

Infectious Disease Control (Graduate Certificate)

Contacts

Program Director: Aleksandra Snyder, PhD

Email: Aleksandra.Snyder@jefferson.edu

215-503-1573

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/life-sciences/degrees-programs/graduate-certificates/disease-control.html>)

Program Description

The curriculum for the Graduate Certificate in Infectious Disease Control is built from core courses and expertise in microbiology and immunology.

Learning Goals & Outcomes

- Key areas: Microbiology of Antimicrobial & Antiviral Agents, Vaccinology & Immunotherapeutics, Epidemiology and Management skills
- The certificate program comprise about one-third of the requirement for a Master of Science degree
- Degree candidates may also pursue certificates as part of their graduate curriculum

Curriculum: 1 Year, 15 Credits

| Code | Title | Credits |
|------------------------|--------------------------------------|-----------|
| Core Curriculum | | |
| GC 660 | Statistical Methods | 3 |
| MI 540 | MI-Antimicrobial Agents | 2 |
| MI 580 | Principles-Epidemiology ¹ | 3 |
| MI 522 | Vaccinology&Immunotherapeutics | 2 |
| General Electives | | 5 |
| Total Credits | | 15 |

¹ GC 660 Statistical Methods is prerequisite

Integrative Physiology (PhD)

Contacts

Program Director: Lawrence Goldfinger, PhD

Email: Lawrence.Goldfinger@jefferson.edu

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/life-sciences/degrees-programs/phd-programs/integrative-physiology.html>)

Program Description

The PhD Program in Integrative Physiology employs a multidisciplinary approach to train students in the rigors of experimental biomedical sciences and to prepare them for careers across a broad array of academic, industry, and government careers. The main theme of the program is in Cardiovascular Physiology, and many of the faculty are drawn from the Cardeza Foundation – Division of Hematology, and the Center for Translational Medicine, of the Department of Medicine at Sidney Kimmel Medical College. However, the program includes faculty from across many academic departments, divisions and research centers across Jefferson, whose research interests encompass a broad spectrum of basic and translational topics and model systems including cellular and molecular physiology, and normal and pathophysiology of the cardiovascular, pulmonary and gastrointestinal systems.

Curriculum: 5.5 Years, 180 Credits

| Course | Title | Credits |
|----------------------|--------------------------------|-----------|
| First Year | | |
| CG 550 | Course CG 550 Not Found | 10 |
| GC 760 | PhD Laborator Rotation II | 3 |
| PS 710 | Seminar | 1 |
| PS 730 | Current Literature | 1 |
| PS 910 | Research | V |
| GC 770 | PhD Laboratory Rotation III | 3 |
| PS 655 | Fund of Integrative Physiology | 3 |
| GC 640 | Research Ethics | 1 |
| PS 720 | Seminar | 1 |
| PS 731 | Current Lit-PS II | 1 |
| PS 656 | Adv Integrative Physiology | 3 |
| GC 550D | Rudiments/ComputationalBio&Med | 1 |
| NS 740 | Applied Statistics in Neurosci | 2 |
| PS 730 | Current Literature | 1 |
| PS 732 | Current Literature | 1 |
| PS 920 | Research | V |
| PS 930 | Research | V |
| PS 940 | Research | V |
| Credits | | 32 |
| Second Year | | |
| GC 665 | Cell Signaling | 4 |
| PS 710 | Seminar | 1 |
| PS 730 | Current Literature | 1 |
| PS 910 | Research | V |
| GC 730 | Planning&Writing ResearchGrant | 1 |
| General Elective | | V |
| PS 720 | Seminar | 1 |
| PS 731 | Current Lit-PS II | 1 |
| General Elective | | V |
| PS 730 | Current Literature | 2 |
| PS 732 | Current Literature | 1 |
| PS 920 | Research | V |
| PS 930 | Research | V |
| PS 940 | Research | V |
| Credits | | 12 |
| Third Year | | |
| PS 710 | Seminar | 1 |
| PS 730 | Current Literature | 1 |
| PS 910 | Research | V |
| PS 720 | Seminar | 2 |
| PS 731 | Current Lit-PS II | 1 |
| PS 920 | Research | V |
| PS 730 | Current Literature | 2 |
| PS 732 | Current Literature | 1 |
| PS 930 | Research | V |
| PS 930 | Research | V |
| Credits | | 8 |
| Fourth Year | | |
| Thesis | | |
| Credits | | 0 |
| Fifth Year | | |
| Thesis | | |
| Credits | | 0 |
| Total Credits | | 52 |

Microbiology & Immunology (MS)

Contacts

Program Director: Aleksandra Snyder, PhD
Email: Aleksandra.Snyder@jefferson.edu
 215-503-1573

Campus: Center City
 Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/life-sciences/degrees-programs/master-programs/microbiology.html>)

Program Description

The MS in Microbiology & Immunology Program offers choices for career specialization with flexible schedules, professional training for academic credit and academic preparation for national professional certification.

Learning Goals & Outcomes

The broad-based curriculum includes a minimum of 40 credits. Course content includes:

- The biology of microorganisms
- Immunology
- Epidemiology
- Pathology
- Biostatistics
- Management
- Clerkship
- Master's research thesis or, alternatively, a Non-Thesis Option

Curriculum: 2 Year, 40 Credits

| Code | Title | Credits |
|------------------------------|--------------------------------|---------|
| Core Curriculum | | |
| MI 505 | Microbiology Biochemistry | 3 |
| MI 521 | Intro to Immunology | 2 |
| MI 580 | Principles-Epidemiology | 3 |
| MI 582 | Diagnostic Microbiol | 3 |
| GC 640 | Research Ethics | 1 |
| GC 660 | Statistical Methods | 3 |
| CB 570 | Pathologic Asp of Disease | 3 |
| MI 870 | Research - MSMI | 1-6 |
| MI 880 | Master's Research-MI | 1-6 |
| MI 890 | Research - MSMI | 1-6 |
| Management Curriculum | | |
| GC 510 | Database Design & Mgmt | 2 |
| GC 525 | Information Systems Management | 3 |
| GC 600 | Managerial and Teamwork Skills | 3 |
| GC 605 | Performance Improvement | 2 |
| GC 610 | Strategic Management | 2 |
| GC 617 | ManagPharm DrugDevelopProjects | 2 |
| GC 620 | Fund of Fin Mgmt. | 3 |
| GC 621 | Biotechnology Venture Mgmt | 2 |
| GC 635 | Intro to Clin Trials Mgmt | 2 |

| Code | Title | Credits |
|----------------------|------------------------------|--------------|
| GC 636 | PrinCarMgmt-DiverseBMCareers | 2 |
| Designated Electives | | 10-12 |
| Total Credits | | 54-71 |

Neuroscience (PhD)

Contacts

Program Director: Kyunghee Koh, PhD
Email: Kyunghee.Koh@jefferson.edu
 215-955-5905

Program Director: Angelo Lepore, PhD
Email: Angelo.Lepore@jefferson.edu
 215-503-5864

Campus: Center City
 Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/life-sciences/degrees-programs/phd-programs/neuroscience.html>)

Program Description

The PhD Graduate Program in Neuroscience (GPN) provides high-level, scholarly, scientific training to qualified individuals interested in pursuing diverse careers to research, foster, disseminate and facilitate an in-depth understanding of the nervous system under normal and pathological conditions.

- Provides high-level, scholarly, scientific training
- disseminate and facilitate an in-depth understanding of the nervous system under normal and pathological conditions

Curriculum of study includes neurophysiology, neuroanatomy, cell biology, biochemistry and molecular biology Requires completion of a research thesis under the tutelage of internationally recognized GPN faculty.

Curriculum 5.5 Years, 180 Credits

| Course | Title | Credits |
|-------------------|--------------------------------|-----------|
| First Year | | |
| CG 550 | Course CG 550 Not Found | 10 |
| NS 601 | Profiles in Neurosci Research | 1 |
| NS 616 | Neuroscience Journal Club I | 1 |
| NS 710 | Seminar-NS | 1 |
| GC 760 | PhD Laborator Rotation II | 3 |
| NS 910 | Research-NS | V |
| NS 700 | Intro to Neuroscience | 4 |
| GC 640 | Research Ethics | 1 |
| NS 626 | Neuroscience Journal Club II | 1 |
| NS 720 | Seminar-NS | 1 |
| GC 770 | PhD Laboratory Rotation III | 3 |
| NS 920 | Research-NS | V |
| NS 715 | MolecularCellular Neuroscience | 2 |
| V | Journal Club | 1 |
| NS 730 | Seminar-NS | 1 |
| NS 690 | Neuropharmacology | 2 |
| GC 780 | PhD Laboratory Rotation IV | 3 |
| NS 920 | Research-NS | V |
| NS 745 | AdvTop NeurodegenerativeDiseas | 2 |
| NS 930 | Research-NS | V |
| Credits | | 37 |

| Course | Title | Credits |
|-----------------------------------|--------------------------------|-----------|
| Second Year | | |
| NS 616 | Neuroscience Journal Club I | 1 |
| NS 710 | Seminar-NS | 1 |
| NS 910 | Research-NS | V |
| NS 626 | Neuroscience Journal Club II | 1 |
| NS 720 | Seminar-NS | 1 |
| NS 940 | Research | V |
| NS 636 | Neuroscience Journal Club III | 1 |
| NS 730 | Seminar-NS | 1 |
| NS 530 | Neuroanatomy | 4 |
| NS 740 | Applied Statistics in Neurosci | 2 |
| GC 730 | Planning&Writing ResearchGrant | 1 |
| NS 920 | Research-NS | V |
| General Elective | | V |
| NS 930 | Research-NS | V |
| Comprehensive Examination | | |
| Credits | | 13 |
| Third Year | | |
| Continue/complete Thesis Research | | |
| Credits | | 0 |
| Fourth Year | | |
| Continue/complete Thesis Research | | |
| Credits | | 0 |
| Fifth Year | | |
| Continue/complete Thesis Research | | |
| Credits | | 0 |
| Total Credits | | 50 |

Patient-Centered Research (Graduate Certificate)

Contacts

Program Director: Carol L. Beck, PhD

Email: Carol.Beck@Jefferson.edu
215-503-6539

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/life-sciences/degrees-programs/graduate-certificates/patient-centered-research.html>)

Program Description

The Graduate Certificate in Population Health Pharmacy is designed to train students in the principles and methods of patient-centered outcomes research (PCOR) and comparative effectiveness research (CER). Students in the Program may come from clinical or scientific backgrounds.

Learning Goals & Outcomes

Educate and train the next generation of health service researchers in the principles and methods of:

- Patient-centered outcomes research (PCOR)
- Comparative effectiveness research (CER)
- The certificate program comprise about one-third of the requirement for a Master of Science degree
- Degree candidates may also pursue certificates as part of their graduate curriculum

Curriculum: 1 Year, 18 Credits

| Code | Title | Credits |
|------------------------|---|-----------|
| Core Curriculum | | |
| GC 660 | Statistical Methods | 3 |
| MI 580 | Principles-Epidemiology | 3 |
| or AHE 509 | Epi & Evidnc Outcomes Research | |
| AHE 506 | SubjectiveOutcomesHealthEval | 3 |
| GC 631 | CompEff & PtCent OutcomesRes | 3 |
| GC 652 | DecSupp&SharedDecMaking HC | 2 |
| GC XXX | Integrative Seminar in Population Health Pharmacy | 1 |
| General Elective | | 3 |
| Total Credits | | 18 |

Pharmacology (MS)

Contacts

Program Director: Carol L. Beck, PhD

Email: Carol.Beck@Jefferson.edu
215-503-6539

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/life-sciences/degrees-programs/master-programs/pharmacology.html>)

Program Description

The MS Program in Pharmacology prepares graduates for positions in:

- Research and development
- Research management
- Clinical trials and toxicology review and assessment
- Graduates have been accepted into PhD and professional degree programs

The MS Pharmacology Program also offers a track in Human Investigation. This track is for residents and fellows doing post-graduate clinical training

Curriculum: 1.5 - 4 Year (FT/PT), 40 Credits

- Full-Time and Part-Time options

| Code | Title | Credits |
|---------------------|----------------------------|---------|
| Core Courses | | |
| BI 550 | Topics-Medical Biochem | 3 |
| GC 660 | Statistical Methods | 3 |
| GC 715 | MS Biomed Sciences Seminar | 1 |
| PR 522 | General Pharmacology | 3 |
| PR 525 | Princ-Clin Pharmacology | 3 |
| PR 870 | Research - MSPR | 1-6 |
| PR 880 | Master's Research-PR | 1-6 |
| PR 890 | Research - MSPR | 1-6 |

| Code | Title | Credits |
|---|--|---------------|
| Mgt. Electives (https://catalog.jefferson.edu/colleges-schools/college-life-sciences-jcls/deselectives/) | | 4-6 |
| General Electives | | 15-17 |
| Human Investigation Track | | |
| BI 550 | Topics-Medical Biochem ¹ | 3 |
| PR 522 | General Pharmacology ¹ | 3 |
| CB 570 | Pathologic Asp of Disease ¹ | 3 |
| CB 510 | Course CB 510 Not Found | 2 |
| GC 630 | Fund-Clinical Trials | 3 |
| GC 640 | Research Ethics | 1 |
| GC 650 | EconAnal of HealthcareInterven | 3 |
| GC 654 | Pharmacoepidemiology | 2 |
| GC 660 | Statistical Methods | 3 |
| GC 690 | Reg Issu in Human Subjects Res | 2 |
| MI 580 | Principles-Epidemiology | 2 |
| PR 525 | Princ-Clin Pharmacology | 3 |
| PR 810 | Clerkship - MSPR | 3 |
| PR 820 | Master's Clerkship-PR | 1-3 |
| PR 830 | Clerkship - MSPR | 1-3 |
| PR 870 | Research - MSPR | 1-3 |
| PR 880 | Master's Research-PR | 1-6 |
| PR 890 | Research - MSPR | 1-6 |
| Total Credits | | 73-108 |

¹ Nine credits transferred from medical/clinical education

Pre-Medical Studies (BS)

Contacts

Program Director: Diana R. Cundell, PhD

Email: Diana.Cundell@jefferson.edu

215-951-2664

Program Director: Kathryn E. Mickle, PhD

Email: Kathryn.Mickle@jefferson.edu

215-951-0490

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/life-sciences/degrees-programs/undergraduate-programs/pre-medical-studies.html>)

Program Description

Pre-medical studies is an "umbrella major" providing academic and professional training to students planning to attend medical school as well as other graduate health care institutions. The major is distinguished by a series of unique upper-level science courses whose case history and problem-based learning approach mirrors that of first-year graduate students in the health care professions, and which are designed to develop students' proficiency in interpreting complex scientific data. Students spend 100 hours developing their empathic, professional

and clinical evaluation skills through two hands-on, off-campus preceptorship experiences performed with licensed health care practitioners. Our graduates are nationally competitive, as evidenced by their MCAT, GRE and DAT scores, and more than 90 percent of our students to date have gone on to various successful careers as physicians, dentists, physical therapists, veterinarians, pharmacists, optometrists, podiatrists and chiropractors.

Learning Goals/Outcomes

- knowledge of health care through hands-on training in HIPAA law, taking history and basic physical measurements and professional conduct with patients
- Demonstrate oral and written communication skills with both lay people and professionals
- Recognize and use medical terminology
- Formal, analytical, synthetic & problem-solving science skills
- Synthesize information from diverse sources to make decisions
- Recognize the social challenges faced in both national and global medical practice
- Comprehend and be able to explain a variety of commonly used clinical laboratory techniques
- Recognize and employ the professional empathy needed in an effective health care professional
- Demonstrate an optimal performance on national standardized graduate school exams (MCAT, GRE, DAT etc.)
- Recognize the varied health care careers and their spheres of expertise

Curriculum: 4 Years, 127-128 Credits

| Course | Title | Credits |
|--------------------|--|-----------|
| First Year | | |
| FYS 100 | Pathways Seminar | 1 |
| WRIT 101 | Writing Sem I: Written Comm. | 3 |
| DBTU 114 | Debating U.S. Issues | 3 |
| CHEM 103 & 103L | Chemistry I and Chemistry I Lab | 4 |
| BIOL 103 | Biology I | 3 |
| BIOL 103L | Biology I Lab | 1 |
| MATH 111 | Calculus I | 4 |
| CHEM 104 & 104L | Chemistry II and Chemistry II Lab | 4 |
| BIOL 104 & 104L | Biology II and Biology II Lab | 4 |
| Credits | | 27 |
| Second Year | | |
| ADIV-2XX | American Diversity | 3 |
| WRIT 201 | Writing Seminar II:Multi Comm | 3 |
| GDIV 2XX | Global Diversity | 3 |
| ADIV 2XX | American Diversity | 3 |
| BIOL 312 | Biostatistics | 3 |
| CHEM 201 & 201L | Organic Chemistry I and Organic Chemistry I Lab | 4 |
| CHEM 202 & 202L | Organic Chemistry II and Organic Chemistry II Lab | 4 |
| MATH 112 | Calculus II | 4 |
| BIOL 201 & 201L | Human Anatomy and Physiology I and Human Anat & Physiology I Lab | 4 |

| Course | Title | Credits |
|-----------------------------|--|----------------|
| BIOL 202 & 202L | Human Anatomy & Physiology II and Human Anat & Physiology II Lab | 4 |
| Credits | | 35 |
| Summer | | |
| BIOL 493 | Preceptorship I | 3 |
| BIOL 494 | Preceptorship II | 3 |
| Credits | | 6 |
| Third Year | | |
| ISEM 3XX | Integrative Seminar | 3 |
| GCIT 2XX | Global Citizenship | 3 |
| ETHC 2XX | Ethics | 3 |
| PHYC 201 | Physics I | 3 |
| PHYC 201L | Physics I Lab | 1 |
| PHYC 203 | Phys II: Waves, Elec, & Mag | 3 |
| PHYC 203L | Physics II Lab | 1 |
| General Electives | | 6-8 |
| BIO 201 or BIO 207/L | Anatomy&Physiology I | 3 |
| BIO 202 | Anatomy&Physiology I Lab | 1 |
| BIO 203 or BIOL 221/L | Anatomy & Physiology II | 3 |
| BIO 204 | Anatomy & Physiology II Lab | 1 |
| BCHM 312 | Biochemistry: Proteins | 3 |
| BCHM 312L | Biochemistry: Proteins Lab | 1 |
| BCHM 313 | Biochemistry:Metabolism | 3 |
| BCHM 313L | Biochemistry: Metabolism Lab | 1 |
| Credits | | 39-41 |
| Fourth Year | | |
| CGIS 300 | Contemporary Global Issues | 3 |
| PHIL 499 | Philosophies of the Good Life | 3 |
| BIOL 207 & 207L | Principles of Genetics and Principles of Genetics Lab | 4 |
| BIOL 221 & 221L | Microbiology and Microbiology Lab | 4 |
| BIOL 413 | Pathology | 3 |
| Designated Science Elective | | 3 |
| General Electives | | 9-12 |
| Credits | | 29-32 |
| Total Credits | | 136-141 |

College of Nursing (JCN)

Dean: Marie Ann Marino, EdD, RN, FAAN | Center City 215-503-8890 | Horsham 215-481-5500
 College Website (<http://Jefferson.edu/JCN/>)

About Us

Jefferson offers unparalleled advantages to students who have the desire and aptitude to become successful nurses, and to nurses who are ready to explore their career potential for growth and advancement. We offer an exceptional continuum of accredited nursing degree programs, from baccalaureate through doctoral (<https://www.jefferson.edu/academics/colleges-schools-institutes/nursing/degrees-programs.html>) levels.

Jefferson College of Nursing is an integral part of a premier academic health center. Our partner in clinical care education, Thomas Jefferson University Hospital (TJUH) (<http://hospitals.jefferson.edu/>), is one of the top-ranked hospitals in the nation and recognized by the American Nurses Credentialing Center as a Magnet® hospital (<https://www.nursingworld.org/organizational-programs/magnet/>) for quality

patient care, nursing excellence, and innovations in professional nursing practice.

Our faculty are outstanding clinicians and exemplary teachers, many of whom maintain a clinical practice at TJUH or elsewhere in Jefferson Health. Their commitment to the goals of the successful student is evident in our classroom and clinical settings. Equally important, our low student-to-faculty ratio fosters a nurturing environment where mentorship, shared learning, and camaraderie flourish.

Jefferson Nursing graduates enter the practice world with excellent clinical skills, real-world nursing experience, and confidence in their ability to work effectively with peers and team members.

Locations

- Jefferson Center City 901 Walnut Street, Philadelphia PA
- Jefferson Dixon 300 Lakeside Drive, Horsham PA

Academic Programs

Undergraduate

- Nursing (BSN) (p. 148)

Graduate

- Executive Leadership (DNP) (p. 147)
- Nurse Anesthesia (DNP) (p. 148)
- Nursing (DNP) (p. 150)
- Nursing (MSN) (p. 151)
- Nursing (PhD) (p. 153)
- Transformative Systems Leadership (MSN) (p. 155)

Certificate

- Advanced Headache Diagnosis & Management (Post-Graduate Certificate) (p. 146)
- Emergency Nurse Practitioner (Post-Graduate Certificate) (p. 147)
- Nurse Practitioners(Post-Graduate Certificate) (p. 148)
- Nursing Education: Academic Nursing (Advanced Certificate) (p. 154)
- Transformative Systems Leadership (Advanced Certificate) (p. 154)

University Accreditations (<https://www.jefferson.edu/about/consumer-information-disclosures.html>)

Advanced Headache Diagnosis & Management (Post-Graduate Certificate)

Contacts

Program Director: Hannah R Smith, PhD
Email: Hannah.Smith@jefferson.edu
 215-503-7770
Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/nursing/degrees-programs/graduate-certificates/headache-diagnosis-management.html>)

Program Description

The Post-Graduate Certificate Program in Advanced Headache Diagnosis and Management brings clinically important and novel information to a diverse group of clinical learners to improve patient care and outcomes related to headache disorders.

Three online didactic courses (10 graduate credits) impart knowledge of pathogenesis, clinical diagnosis, pharmacological and non-pharmacological treatment options, psychiatric and sleep disorders, and business management for clinical practice. A weekend onsite intensive provides opportunities to practice case simulations and procedures, participate in interprofessional discussions, and engage in active learning directly with headache medicine experts.

Learning Goals/Outcomes

- Teach clinically important and novel information to improve patient care and morbidity related to headache disorders
- Produce practitioners with expertise in headache medicine
- Teach a diverse group of clinical learners
- Encourage learners to bring enthusiasm for, expertise in, and accessibility to headache medicine management and treatment to their communities

Curriculum: 10 Credits

| Code | Title | Credits |
|-----------------------------------|--------------------------------|-----------|
| Courses | | |
| NU 685 | Diag & Path of Headache Disord | 4 |
| NU 686 | Curr & Emerg Treat Headche Dis | 4 |
| NU 687 | Psych Factors in Headache Med | 2 |
| On-site Intensive Weekends | | |
| Winter & Spring | | |
| Total Credits | | 10 |

Emergency Nurse Practitioner (Post-Graduate Certificate)

Contacts

Program Director: Sharon Rainer, PhD, APRN, FNP-BC, ENP-C

Email: Sharon.Rainer@jefferson.edu

215-503-7558

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/nursing/degrees-programs/graduate-certificates/emergency-nurse-practitioner.html>)

Program Description

Designed for the family nurse practitioner (FNP) who currently works in an emergency care setting or who desires to make a change, the Emergency Nurse Practitioner - Post-Graduate Certificate program provides the knowledge and skills needed for the fast-paced, highly technical emergency setting. The program provides high-quality education and procedural skills necessary to competently and confidently practice as a nurse practitioner in the emergency and urgent

care settings. Jefferson's highly skilled, board-certified faculty provides a rigorous program designed to prepare you to perform the necessary diagnostic and therapeutic procedures needed to be eligible for board certification as an emergency nurse practitioner.

Curriculum: 12 Credits

| Code | Title | Credits |
|----------------------|--------------------------------|-----------|
| NU 643 | ENP Role/Emergency Care I | 4 |
| NU 644 | ENP Procedures/Emergen Care II | 4 |
| NU 645 | Collab Mgmt/Adv Emerg Care III | 4 |
| Total Credits | | 12 |

Executive Leadership (DNP)

Contacts

Program Director: Kathy Gray, DNP, CRNP, FNP-C, FAANP

Email: Kathy.Gray@jefferson.edu

215-503-7756

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/nursing/degrees-programs/doctor-nursing-practice/post-master-executive-leadership.html>)

Program Description

The Doctorate of Nursing Practice (DNP) in Executive Leadership (DNP-EL) offers nurses with a Master's degree a dynamic, flexible program preparing them for executive leadership roles across all care delivery sites and systems. The online program designed for current or aspiring senior leaders, focuses on evidence-based leadership and innovation and integrates experiential learning tailored to each student's interests often within their practice setting or community.

Learning Goals/Outcomes

- Pending

Curriculum: 69 Credits

- Post-Master's Entry
- **DNP Core Curriculum, 27 credits**
- 2 year & 3 year plans of study available

| Course | Title | Credits |
|-----------------------|--|----------|
| First Year | | |
| Year 1: Summer | | |
| NU XXX | Introduction to Executive Leadership DNP Studies | 1 |
| NU 716 | Persp Com Engage Pop Health | 3 |
| Credits | | 4 |
| Fall | | |
| NU 714 | Hlthcre Sys Safe Quality Impro | 3 |
| NU XXX | Trends Shaping the Future of Executive Leadership in Health Care | 3 |
| Credits | | 6 |
| Spring | | |
| NU XXX | Innovation, Creativity and Well-Being in Health Care | 3 |
| NU 702 | Practice Inq: DsgnMeth,Analys | 3 |
| Credits | | 6 |
| Second Year | | |
| Year 2: Summer | | |

| Course | Title | Credits |
|----------------------|---|-----------|
| NU 715 | Lead Strat Change in Era Hlth | 3 |
| Credits | | 3 |
| Fall | | |
| NU XXX | Executive Leadership DNP Project and Practicum Seminar I | 4 |
| General Elective | in consultation with academic advisor and with permission | 3 |
| Credits | | 7 |
| Spring | | |
| NU XXX | Executive Leadership DNP Project and Practicum Seminar II | 3 |
| NU 713 | Digital Transfrm in Healthcare | 3 |
| Credits | | 6 |
| Total Credits | | 32 |

Nurse Anesthesia (DNP)

Contacts

Program Director: Janice Miller, DNP, CRNP, CDE

Email: Janice.Miller@jefferson.edu

215-503-7723

Campus: Center City, Dixon Campus

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/nursing/degrees-programs/doctor-nursing-practice.html>)

Curriculum: 3 Years, 92 Credits

- DNP, Anesthesia Program

| Course | Title | Credits |
|--------------------|--------------------------------|-----------|
| First Year | | |
| NU 560 | Adv Pharmacotherapeutics | 3 |
| NU 603 | Research Adv Prac Nursing I | 3 |
| NU 724 | Chem & Phys Related to Anes | 2 |
| NU 625 | Epidemiology for Health Profes | 3 |
| NU 706 | Qual Msremnt & Outcme Analysis | 3 |
| NU 673 | Compre Assess-Clin Decis | 3 |
| NU 570 | Pathophysiology Human Disease | 3 |
| NU 748 | Basic Principles of Anesthesia | 3 |
| NU 700 | Pharmacokinetics & Dynamics | 3 |
| NU 750 | Orientation to Clin Practice | 0 |
| NU 775 | Pathol Aspects of Disease II | 3 |
| NU 758 | Adv Principles of Anesthesia I | 3 |
| NU 751 | Clinical Practice I | 3 |
| NU 707 | Leadership & Inter-Prof Collab | 3 |
| NU 709 | Curmnt Issue Health Soc Policy | 3 |
| NU 703 | Theor Found Org Chan HCS | 3 |
| NU 701 | Scientific Underpinnings NP | 3 |
| Credits | | 47 |
| Second Year | | |
| NU 768 | AdvPrinciples of Anesthesia II | 3 |
| NU 752 | Clinical Practice II | 3 |
| NU 702 | Practice Inq: DsgnMeth,Analys | 3 |
| NU 605 | Role Of The Adv Prac Nur | 3 |
| NU 753 | Clinical Practice III | 3 |
| NU 706 | Qual Msremnt & Outcme Analysis | 3 |
| NU 704 | Phil, Found, Meth for E-B Prac | 3 |
| NU 754 | Clinical Practice IV | 3 |
| NU 707 | Leadership & Inter-Prof Collab | 3 |
| NU 708 | Clin Prev&Pop Hlth Imp Nat Hlt | 3 |

| Course | Title | Credits |
|----------------------|--------------------------------|-----------|
| NU 710 | Spec-focused Practicum I | 3 |
| Credits | | 33 |
| Third Year | | |
| NU 755 | Clinical Practice V | 3 |
| NU 756 | Clinical Practice VI | 3 |
| NU 705 | Adv Topics in Hlth Informatics | 3 |
| NU 711 | Spec-focused Practicum II | 3 |
| NU 757 | Clinical Practice VII | 3 |
| NU 712 | Spec-focused Practicum III | 3 |
| Credits | | 18 |
| Total Credits | | 98 |

Nurse Practitioners(Post-Graduate Certificate)

Contacts

Program Director: Ksenia Zukowsky, PhD, APRN, NNP-BC

Email: Ksenia.Zukowsky@jefferson.edu

215-503-5091

Curriculum: 18 Credits

- Nurse Practitioners

| Code | Title | Credits |
|----------------------|-------------------------------|-----------|
| NU 560 | Adv Pharmacotherapeutics | 3 |
| NU 570 | Pathophysiology Human Disease | 3 |
| NU 673 | Compre Assess-Clin Decis | 3 |
| NU 6XX | Specialty Clinical Course I | 3 |
| NU 6XX | Specialty Clinical Course II | 3 |
| NU 6XX | Specialty Clinical Course III | 3 |
| Total Credits | | 18 |

Nursing (BSN)

Contacts

Program Director: Mary T. Bouchaud, PhD, CNS, CCRN; Susan Egger, PhD, MSN, RN

Email: Mary.Bouchaud@jefferson.edu; Susan.Egger@jefferson.edu

215-503-3453; 215-503-6379

Program Director: Mariann Kerr, PhD, MSN, RN, PCCN, CNE

Email: Mariann.Kerr@jefferson.edu

215-481-5520

Campus: Center City, Dixon Campus

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/nursing/degrees-programs/bachelor-science-nursing.html>)

Educational Options

Options for High School Seniors

- Bachelor of Science in Nursing (BSN) Traditional Program

Options for College Students

- Bachelor of Science in Nursing (BSN) Traditional Program
- FACT 1 & FACT 2 programs (for students holding a prior bachelor's degree in a non-nursing major)

- Master of Science in Nursing (MSN)
- Doctor of Nursing Practice (DNP) – Post Master’s Entry
- DNP – Post Baccalaureate Entry
- Post-Graduate Certificate Progrsm

Program Description

Jefferson’s Bachelor of Science in Nursing (BSN) degree program offers an accredited prelicensure option that is a proven pathway to a successful nursing career. Jefferson graduates are recognized throughout the country as leaders in education, research, healthcare delivery and community service. Request information to receive a link to your personal website via email.

The BSN Traditional Track Program is for students with a high school diploma and 55 prerequisite college credits.

In addition, for students who hold non-nursing bachelor’s degrees, Jefferson offers two accelerated pathways to the Bachelor of Science in Nursing:

- Full-time Accelerated Coursework Track (FACT) - 1 Year
- Full-time Accelerated Coursework Track (FACT) - 2 Year

Program Highlights

- Jefferson BSN graduates have been pursued by employers in the Philadelphia region and across the nation.
- Starting salary range for BSN graduates typically falls between \$50,000 to \$75,000 (salary.com)

Curriculum: 2 Years,67 Credits

- Bachelor of Science in Nursing (BSN) full-time, two year, traditional pathway, requires (55) approved prerequisite college credits

| Code | Title | Credits |
|--------------------------|--------------------------------|-----------|
| Year 1 Semester 1 | | |
| NU 315 | Hlth Assess Across Lifespan | 3 |
| NU 340 | Medication Calculations in Nur | 1 |
| NU 341 | Foundations in Nursing | 4 |
| NU 342 | Hlth Prom App Acr Lifespan I | 7.5 |
| NU 343 | Pathophysiology | 3 |
| Semester 2 | | |
| NU 345 | Pharmacology | 3 |
| NU 346 | Prof Practice in Nursing | 2 |
| NU 347 | Discov & Evidence-Based Pract | 2 |
| NU 495 | Hlth Prom App Acr Lifespan III | 9.5 |
| Semester 3 | | |
| NU 344 | Hlth Prom App Acr Lifespan II | 10 |
| NU 493 | Perspective Seminar | 2 |
| NU 494 | Population Health | 4 |
| Year 2 Semester 4 | | |
| NU 496 | Clinical Judgment Applications | 10 |
| NU 497 | Trans to Pract & NCLEX Prep | 3 |
| NU 498 | Prom Hlth & Quality of Life | 3 |
| Total Credits | | 67 |

Curriculum: 69 Credits

- BSN Full-time, FACT-1 pathway
- Requires 60 approved prerequisite college credits

| Code | Title | Credits |
|----------------------|--------------------------------|-----------|
| Semester 1 | | |
| NU 315 | Hlth Assess Across Lifespan | 3 |
| NU 340 | Medication Calculations in Nur | 1 |
| NU 341 | Foundations in Nursing | 4 |
| NU 342 | Hlth Prom App Acr Lifespan I | 7.5 |
| NU 343 | Pathophysiology | 3 |
| NU 346 | Prof Practice in Nursing | 2 |
| NU 603 | Research Adv Prac Nursing I | 3 |
| Semester 2 | | |
| NU 344 | Hlth Prom App Acr Lifespan II | 10 |
| NU 345 | Pharmacology | 3 |
| NU 696 | Leadership & Critical Thinking | 3 |
| NU 495 | Hlth Prom App Acr Lifespan III | 9.5 |
| Semester 3 | | |
| NU 605 | Role Of The Adv Prac Nur | 3 |
| NU 494 | Population Health | 4 |
| NU 496 | Clinical Judgment Applications | 10 |
| NU 497 | Trans to Pract & NCLEX Prep | 3 |
| Total Credits | | 69 |

Curriculum: 69 Credits

- Nursing BSN Full-time, FACT-2 pathway
- Requires 60 approved prerequisite credits

| Code | Title | Credits |
|--------------------------|--------------------------------|-----------|
| Year 1 Semester 1 | | |
| NU 315 | Hlth Assess Across Lifespan | 3 |
| NU 340 | Medication Calculations in Nur | 1 |
| NU 341 | Foundations in Nursing | 4 |
| NU 342 | Hlth Prom App Acr Lifespan I | 7.5 |
| NU 343 | Pathophysiology | 3 |
| Year 1 Semester 2 | | |
| NU 495 | Hlth Prom App Acr Lifespan III | 9.5 |
| NU 345 | Pharmacology | 3 |
| NU 346 | Prof Practice in Nursing | 2 |
| NU 603 | Research Adv Prac Nursing I | 3 |
| Year 2 Semester 3 | | |
| NU 696 | Leadership & Critical Thinking | 3 |
| NU 494 | Population Health | 4 |
| NU 344 | Hlth Prom App Acr Lifespan II | 10 |
| NU 497 | Trans to Pract & NCLEX Prep | 3 |
| NU 496 | Clinical Judgment Applications | 10 |
| Year 2 Semester 4 | | |
| NU 605 | Role Of The Adv Prac Nur | 3 |
| Total Credits | | 69 |

Nursing (DNP)

Contacts

Program Director: Janice Miller, DNP, CRNP, CDE

Email: Janice.Miller@jefferson.edu

215-503-7723

Campus: Online

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/nursing/degrees-programs/doctor-nursing-practice.html>)

Program Description

The Doctor of Nursing Practice (DNP) is a practice focused doctorate that prepares professional nurses for scholarly practice. Our graduates are clinical and health system experts that create, reform and lead improvements in practice, policy, populations, organizations, and government. In addition to the traditional DNP-Post Master's Entry, Jefferson offers a DNP-Post Baccalaureate Entry. Part time and full time plans of study are available. Enter our DNP Program and engage in inter-professional leadership across the health care continuum. Our nationally recognized, expert faculty will mentor you to design, implement and evaluate a year-long doctoral project aligned with your career interests and goals.

Curriculum: 69 Credits

- Post-Baccalaureate Entry¹
- Students admitted prior to Fall 2021

| Code | Title | Credits |
|----------------------|--------------------------------|-----------|
| NU 560 | Adv Pharmacotherapeutics | 3 |
| NU 570 | Pathophysiology Human Disease | 3 |
| NU 602 | Health Policy | 3 |
| NU 603 | Research Adv Prac Nursing I | 3 |
| NU 605 | Role Of The Adv Prac Nur | 3 |
| NU 625 | Epidemiology for Health Profes | 3 |
| NU XXX | Clinical I | 3 |
| NU XXX | Clinical II | 3 |
| NU XXX | Clinical III | 3 |
| NU 672 | Informatics for ANP | 3 |
| NU 673 | Compre Assess-Clin Decis | 3 |
| NU 701 | Scientific Underpinnings NP | 3 |
| NU 702 | Practice Inq: DsgnMeth,Analys | 3 |
| NU 703 | Theor Found Org Chan HCS | 3 |
| NU 704 | Phil, Found, Meth for E-B Prac | 3 |
| NU 705 | Adv Topics in Hlth Informatics | 3 |
| NU 706 | Qual Msremnt & Outcme Analysis | 3 |
| NU 707 | Leadership & Inter-Prof Collab | 3 |
| NU 708 | Clin Prev&Pop Hlth Imp Nat Hlt | 3 |
| NU 709 | Currnt Issue Health Soc Policy | 3 |
| NU 710 | Spec-focused Practicum I | 3 |
| NU 711 | Spec-focused Practicum II | 3 |
| NU 712 | Spec-focused Practicum III | 3 |
| Total Credits | | 69 |

¹ Refer to JCN Student Handbook & Course Catalog 20221-20232 for specific Advanced Practice Registered Nurse (APRN) pathways.

Curriculum: 66 Credits

- Post-Baccalaureate Entry¹
- Students admitted Fall 2021 and later

| Code | Title | Credits |
|----------------------|--------------------------------|-----------|
| NU 560 | Adv Pharmacotherapeutics | 3 |
| NU 570 | Pathophysiology Human Disease | 3 |
| NU 602 | Health Policy | 3 |
| NU 603 | Research Adv Prac Nursing I | 3 |
| NU 605 | Role Of The Adv Prac Nur | 3 |
| NU 696 | Leadership & Critical Thinking | 3 |
| NU XXX | Clinical I | 3 |
| NU XXX | Clinical II | 3 |
| NU XXX | Clinical III | 3 |
| NU 672 | Informatics for ANP | 3 |
| NU 673 | Compre Assess-Clin Decis | 3 |
| NU 701 | Scientific Underpinnings NP | 3 |
| NU 702 | Practice Inq: DsgnMeth,Analys | 3 |
| NU 703 | Theor Found Org Chan HCS | 3 |
| NU 704 | Phil, Found, Meth for E-B Prac | 3 |
| NU 705 | Adv Topics in Hlth Informatics | 3 |
| NU 706 | Qual Msremnt & Outcme Analysis | 3 |
| NU 707 | Leadership & Inter-Prof Collab | 3 |
| NU 708 | Clin Prev&Pop Hlth Imp Nat Hlt | 3 |
| NU 709 | Currnt Issue Health Soc Policy | 3 |
| NU 710 | Spec-focused Practicum I | 3 |
| NU 711 | Spec-focused Practicum II | 3 |
| NU 712 | Spec-focused Practicum III | 3 |
| Total Credits | | 69 |

¹ Refer to JCN Student Handbook for specific Advanced Practice Registered Nurse (APRN) pathways.

The post-Baccalaureate to DNP program for graduates of accelerated BSN programs requires completion of 66-69 credits and will culminate with a Doctor of Nursing Practice (DNP) degree. Graduates of accelerated BSN programs will have transcripts from their baccalaureate program reviewed by the Chair of Graduate Programs for potential transfer credit and advanced standing in the post-Baccalaureate to DNP plan of study. The MSN degree will be conferred at the point students complete the American Association of Colleges of Nursing's (AACN) Essentials of Master's Education in Nursing (2011).

The post-Baccalaureate to DNP program for graduates of traditional Pre-licensure BSN programs requires completion of 69 credits and will culminate with a Doctor of Nursing Practice (DNP) degree. The MSN degree will be conferred at the point students complete the American Association of Colleges of Nursing's (AACN) Essentials of Master's Education in Nursing (2011).

Curriculum: 2 Years

- Post-Master's Entry¹
- DNP Core Curriculum, 25 credits
- DNP Practicum Sequence, 7 credits
- Part-time and full-time plans of study are available.

| Course | Title | Credits |
|----------------------|--------------------------------|-----------|
| First Year | | |
| NU 702 | Practice Inq: DsgnMeth,Analys | 3 |
| NU 704 | Phil, Found, Meth for E-B Prac | 3 |
| NU 713 | Digital Transfrm in Healthcare | 3 |
| NU 714 | Hlthcre Sys Safe Quality Impro | 3 |
| NU 715 | Lead Strat Change in Era Hlth | 3 |
| NU 716 | Persp Com Engage Pop Health | 3 |
| NU 717 | Health and Social Policy | 3 |
| NU 718 | Intro to DNP Studies Schol Pro | 1 |
| NU 719 | DNP Scholarly Proj Seminar I | 4 |
| NU 720 | Facil Learner-Centr Dev & Soc | 3 |
| Designated Electives | | 3 |
| Credits | | 32 |
| Total Credits | | 32 |

¹ Refer to JCN Student Handbook & Course Catalog 20221-20232 for specific Advanced Practice Registered Nurse (APRN) pathways.

Curriculum: 3 Years, 98 Credits

- DNP, Anesthesia Program

| Course | Title | Credits |
|--------------------|--------------------------------|-----------|
| First Year | | |
| NU 560 | Adv Pharmacotherapeutics | 3 |
| NU 603 | Research Adv Prac Nursing I | 3 |
| NU 724 | Chem & Phys Related to Anes | 2 |
| NU 625 | Epidemiology for Health Profes | 3 |
| NU 706 | Qual Msremnt & Outcme Analysis | 3 |
| NU 673 | Compre Assess-Clin Decis | 3 |
| NU 570 | Pathophysiology Human Disease | 3 |
| NU 748 | Basic Principles of Anesthesia | 3 |
| NU 700 | Pharmacokinetics & Dynamics | 3 |
| NU 750 | Orientation to Clin Practice | 0 |
| NU 775 | Pathol Aspects of Disease II | 3 |
| NU 758 | Adv Principles of Anesthesia I | 3 |
| NU 751 | Clinical Practice I | 3 |
| NU 707 | Leadership & Inter-Prof Collab | 3 |
| NU 709 | Currnt Issue Health Soc Policy | 3 |
| NU 703 | Theor Found Org Chan HCS | 3 |
| NU 701 | Scientific Underpinnings NP | 3 |
| Credits | | 47 |
| Second Year | | |
| NU 768 | AdvPrinciples of Anesthesia II | 3 |
| NU 752 | Clinical Practice II | 3 |
| NU 702 | Practice Inq: DsgnMeth,Analys | 3 |
| NU 605 | Role Of The Adv Prac Nur | 3 |
| NU 753 | Clinical Practice III | 3 |
| NU 706 | Qual Msremnt & Outcme Analysis | 3 |
| NU 704 | Phil, Found, Meth for E-B Prac | 3 |
| NU 754 | Clinical Practice IV | 3 |
| NU 707 | Leadership & Inter-Prof Collab | 3 |
| NU 708 | Clin Prev&Pop Hlth Imp Nat Hlt | 3 |

| Course | Title | Credits |
|----------------------|--------------------------------|-----------|
| NU 710 | Spec-focused Practicum I | 3 |
| Credits | | 33 |
| Third Year | | |
| NU 755 | Clinical Practice V | 3 |
| NU 756 | Clinical Practice VI | 3 |
| NU 705 | Adv Topics in Hlth Informatics | 3 |
| NU 711 | Spec-focused Practicum II | 3 |
| NU 757 | Clinical Practice VII | 3 |
| NU 712 | Spec-focused Practicum III | 3 |
| Credits | | 18 |
| Total Credits | | 98 |

Nursing (MSN)

Contacts

Program Director: Ksenia Zukowsky, PhD, APRN, NNP-BC
Email: Ksenia.Zukowsky@jefferson.edu
 215-503-5091

Campus: Online with in-person intensives

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/nursing/degrees-programs/master-science-nursing.html>)

Curriculum: MSN, Core Curriculum, 18 Credits

- for NP, Nursing Informatics, and Community Systems Administration programs
- Students admitted prior to Fall 2021

| Code | Title | Credits |
|----------------------|--------------------------------|-----------|
| NU 602 | Health Policy | 3 |
| NU 603 | Research Adv Prac Nursing I | 3 |
| NU 604 | Research Seminar | 3 |
| NU 605 | Role Of The Adv Prac Nur | 3 |
| NU 625 | Epidemiology for Health Profes | 3 |
| NU 672 | Informatics for ANP | 3 |
| Total Credits | | 18 |

Curriculum: MSN, Core Curriculum, 18 Credits

- for NP, Nursing Informatics, and Community Systems Administration programs
- Students admitted Fall 2021 and later

| Code | Title | Credits |
|----------------------|--------------------------------|-----------|
| NU 602 | Health Policy | 3 |
| NU 603 | Research Adv Prac Nursing I | 3 |
| NU 704 | Phil, Found, Meth for E-B Prac | 3 |
| NU 605 | Role Of The Adv Prac Nur | 3 |
| NU 696 | Leadership & Critical Thinking | 3 |
| NU 705 | Adv Topics in Hlth Informatics | 3 |
| Total Credits | | 18 |

Curriculum: MSN, Adult-Gerontology, Acute Care Nurse Practitioner

| Code | Title | Credits |
|----------------------|--------------------------------|-----------|
| NU 560 | Adv Pharmacotherapeutics | 3 |
| NU 570 | Pathophysiology Human Disease | 3 |
| NU 631 | DR & CD for AcuCare APN I | 3 |
| NU 632 | Clin Deci Making Acu Care APN | 3 |
| NU 633 | Cli Dec Makin/ Acu Car APN III | 3 |
| NU 673 | Compre Assess-Clin Decis | 3 |
| Total Credits | | 18 |

Curriculum: MSN, Nursing Education: Academic Nursing Core, APRN Core, and Specialty Curriculum, Practicum Sequence

| Code | Title | Credits |
|--------|--------------------------------|---------|
| NU 560 | Adv Pharmacotherapeutics | 3 |
| NU 570 | Pathophysiology Human Disease | 3 |
| NU 602 | Health Policy | 3 |
| NU 603 | Research Adv Prac Nursing I | 3 |
| NU 618 | Trends Educ & Nurse Educ Role | 3 |
| NU 619 | Onl Educ & Instcrt Des Aca Nur | 3 |
| NU 673 | Compre Assess-Clin Decis | 3 |
| NU 678 | Academic Nursing Seminar I | 3 |
| NU 680 | Academic Nursing Seminar II | 3 |
| NU 684 | Academic Nursing Seminar III | 3 |
| NU 696 | Leadership & Critical Thinking | 3 |
| NU 704 | Phil, Found, Meth for E-B Prac | 3 |

Curriculum: MSN, Adult-Gerontology, Primary Care Nurse Practitioner

| Code | Title | Credits |
|----------------------|-------------------------------|-----------|
| NU 560 | Adv Pharmacotherapeutics | 3 |
| NU 570 | Pathophysiology Human Disease | 3 |
| NU 630 | Clin Decision Making Adu APN | 3 |
| NU 673 | Compre Assess-Clin Decis | 3 |
| NU 674 | Mgm-Adult - Primary Care | 3 |
| NU 676 | Older Adult - Ambul Care | 3 |
| Total Credits | | 18 |

Curriculum: MSN, Community Systems Administration

| Code | Title | Credits |
|--------|--------------------------------|---------|
| NU 681 | Comm.Systems Admin I | 3 |
| NU 682 | Comm.Systems Admin II | 3 |
| NU 690 | Informatics:Project Management | 3 |
| NU 691 | HealthEcono & FinancManagement | 3 |

| Code | Title | Credits |
|------|-------------------|---------|
| | General Electives | 3 |
| | General Electives | 3 |

Curriculum: MSN, Family Individual Across Lifespan Nurse Practitioner

| Code | Title | Credits |
|----------------------|-------------------------------|-----------|
| NU 560 | Adv Pharmacotherapeutics | 3 |
| NU 570 | Pathophysiology Human Disease | 3 |
| NU 673 | Compre Assess-Clin Decis | 3 |
| NU 674 | Mgm-Adult - Primary Care | 3 |
| NU 675 | Children-Ambulatory Care | 3 |
| NU 676 | Older Adult - Ambul Care | 3 |
| Total Credits | | 18 |

Curriculum: MSN, Nursing Informatics

| Code | Title | Credits |
|----------------------|--------------------------------|-----------|
| NU 689 | Care Info:Ethics/Issues/ Trend | 3 |
| NU 690 | Informatics:Project Management | 3 |
| NU 693 | Nurs InfoSeminar & Practicum I | 3 |
| NU 694 | Nurs Informatics & Pract II | 3 |
| | General Elective | 3 |
| | General Elective | 3 |
| Total Credits | | 18 |

Curriculum: MSN, Neonatal Nurse Practitioner

| Code | Title | Credits |
|----------------------|--------------------------------|-----------|
| NU 570 | Pathophysiology Human Disease | 3 |
| NU 662 | Diag/Dec Pract Perinatal Nur I | 3 |
| NU 663 | Diag/Dec Pract Perinatal Nu II | 3 |
| NU 664 | Diag/Dec Pract Perinatal NuIII | 3 |
| NU 665 | Comp Clin DecMak Mom & Neonate | 3 |
| NU 667 | NeonatalAdvPharmacotherapeutic | 3 |
| Total Credits | | 18 |

Curriculum: MSN, Pediatric Primary Care Nurse Practitioner

| Code | Title | Credits |
|----------------------|--------------------------------|-----------|
| NU 560 | Adv Pharmacotherapeutics | 3 |
| NU 570 | Pathophysiology Human Disease | 3 |
| NU 640 | Clin Dec Making for Ped APN I | 3 |
| NU 641 | Clin Dec Making Ped APN II | 3 |
| NU 642 | Clin Dec Making for PedAPN III | 3 |
| NU 673 | Compre Assess-Clin Decis | 3 |
| Total Credits | | 18 |

Curriculum: MSN, Psychiatric Mental Health Nurse Practitioner

| Code | Title | Credits |
|----------------------|---------------------------------|-----------|
| NU 560 | Adv Pharmacotherapeutics | 3 |
| NU 570 | Pathophysiology Human Disease | 3 |
| NU 673 | Compre Assess-Clin Decis | 3 |
| NU 613 | Diag Rson & Crtcal Dcsion Mking | 3 |
| NU 614 | Diag Rson Dcsion Mking PMH II | 3 |
| NU 615 | Diag Rson Dcsion Mking PMH III | 3 |
| Total Credits | | 18 |

Curriculum: MSN, Transformative Systems Leadership Core and Specialty Curriculum, Practicum Sequence

| Code | Title | Credits |
|-------------------|--------------------------------|---------|
| NU 603 | Research Adv Prac Nursing I | 3 |
| NU 607 | Trnsfrmng Health Care Delivery | 3 |
| NU 608 | Leadership&Mgmt/Oper Excel | 3 |
| NU 609 | Health Econo Finance & Policy | 3 |
| NU 610 | Strategic Comm in Workplace | 3 |
| NU 611 | Leadership Practicum Seminar I | 3 |
| NU 612 | Leadership Practicum Sem II | 3 |
| NU 696 | Leadership & Critical Thinking | 3 |
| NU 705 | Adv Topics in Hlth Informatics | 3 |
| NU 707 | Leadership & Inter-Prof Collab | 3 |
| General Electives | | 3 |
| General Elective | | 3 |

Curriculum: MSN, Women's Health-Gender Related Nurse Practitioner

| Code | Title | Credits |
|----------------------|--------------------------------|-----------|
| NU 560 | Adv Pharmacotherapeutics | 3 |
| NU 570 | Pathophysiology Human Disease | 3 |
| NU 590 | Clin Decision Making WHCNP I | 3 |
| NU 591 | Clin Decision Making WHCNP II | 3 |
| NU 592 | Clin Decision Making WHCNP III | 3 |
| NU 673 | Compre Assess-Clin Decis | 3 |
| Total Credits | | 18 |

Nursing (PhD)

Contacts

Program Director: Bobbie Posmontier, PhD, CNM, PMHNP-BC, FAAN

Email: Barbara.Posmontier@jefferson.edu

215-503-7330

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/nursing/degrees-programs/phd-in-nursing.html>)

Program Description

The PhD in Nursing program is 56 credits and provides a novel approach preparing nurse scientists at the highest level of education to generate new scientific knowledge, address healthcare problems, and educate the next generation of nurses. The program is embedded in an educational framework that promotes interdisciplinary collaboration and reimagines education and discovery by encouraging collaboration among students during the formative stages of PhD education. The PhD in Nursing program embraces diversity and inclusion through its commitment to eliminate structural racism and unconscious bias in the recruitment and admission process, and advancement of a school wide culture of intolerance for systemic oppression of marginalized persons and groups.

Program Highlights

- Participate in research labs across the university
- Work with interprofessional research teams
- Earn a dual PhD/MPH or public health certificate or an academic nursing (teaching) certificate
- Learn how to conduct research that embraces social justice and health equity
- Develop your own independent research with mentorship from expert nurse scientist faculty.
- 56 credit courses completed over 4 years with full-time study. Part-time study options are available.
- Hybrid format

Curriculum: 4 Years, 56 Credits

| Course | Title | Credits |
|-------------------------------------|--------------------------------|-----------|
| First Year | | |
| Fall | | |
| NU 800 | Philosophy of Sci in Nursing | 3 |
| PHS 605 | Adv Stats Mthds Data Analysis | 3 |
| NU 802 | Foundations/Scientific Writing | 3 |
| Credits | | 9 |
| Spring | | |
| NU 801 | Theoretical Approaches to Res | 3 |
| NU 810 | Quantitative Methods | 3 |
| NU 820 | Course NU 820 Not Found | 3 |
| GC 640 | Research Ethics | 1 |
| Credits | | 10 |
| Summer | | |
| NU 678 | Academic Nursing Seminar I | 3 |
| Write Qualifying Examination | | |
| Credits | | 3 |
| Second Year | | |
| Fall | | |
| PBH 512 | Qualitative Research Methods | 3 |
| NU 821 | Course NU 821 Not Found | 3 |
| PHS 710 | Adv Health Behav Method & Meas | 3 |
| Credits | | 9 |
| Spring | | |
| NU 812 | Course NU 812 Not Found | 3 |
| NU 811 | Course NU 811 Not Found | 3 |
| PH 650 | Course PH 650 Not Found | 3 |
| Credits | | 9 |
| Summer | | |
| NU 830 | Course NU 830 Not Found | 1 |
| General Elective | | 3 |

| Course | Title | Credits |
|---|-------------------------|-----------|
| Write Dissertation Proposal | | |
| Credits | | 4 |
| Third Year | | |
| Fall | | |
| NU 831 | Course NU 831 Not Found | 3 |
| General Elective | | 3 |
| General Elective | | 3 |
| Defend Dissertation Proposal end of Fall Semester | | |
| Credits | | 9 |
| Spring | | |
| NU 840 | Course NU 840 Not Found | 1 |
| Credits | | 1 |
| Summer | | |
| NU 841 | Course NU 841 Not Found | 1 |
| Credits | | 1 |
| Fourth Year | | |
| Fall | | |
| NU 842 | Course NU 842 Not Found | 1 |
| Credits | | 1 |
| Spring | | |
| Dissertation Defense | | |
| Credits | | 0 |
| Total Credits | | 56 |

Nursing Education: Academic Nursing (Advanced Certificate)

Contacts

Program Director: Maureen Fitzgerald, EdD, MSN, RNC-NIC

Email: maureen.fitzgerald@jefferson.edu

215-503-4214

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/nursing/degrees-programs/graduate-certificates/academic-nursing.html>)

Program Description

The Advanced Certificate in Nursing Education: Academic Nursing Certificate Program is designed for professional nurses interested in developing core knowledge and skills in teaching nursing education. The certificate is open to registered nurses who earned a minimum of a bachelor's degree. Courses focus on contemporary curriculum design, instructional methodologies, student assessment, and program evaluation methods. Completion of two preceptor-facilitated practicums provides students the opportunity to transfer knowledge to the actual academic environment.

The certificate consists of 9 graduate credits in nursing education that can serve as a foundation towards an MSN in Nursing Education: Academic Nursing at Jefferson College of Nursing and may be transferred to other MSN programs.

This flexible, online program with experiential learning offers professional growth for teaching in various roles and settings. Graduates are eligible, depending upon education, employment role, and work history, to apply for any of the three National League of Nursing (NLN) Certified Nurse Educator (CNE) examinations. NLN - CNE designation indicates exceptional proficiencies in the field of nursing education.

Program Highlights

- 3 online courses (9 credits) using interactive e-learning modules coupled with asynchronous online collaboration/activities
- 224 hours of expert academician preceptor-facilitated experiential learning
- Program outcomes incorporate the National League for Nursing (NLN) competencies for nurse educators

Curriculum: 9 Credits

| Code | Title | Credits |
|----------------------|------------------------------|----------|
| NU 678 | Academic Nursing Seminar I | 3 |
| NU 680 | Academic Nursing Seminar II | 3 |
| NU 684 | Academic Nursing Seminar III | 3 |
| Total Credits | | 9 |

Transformative Systems Leadership (Advanced Certificate)

Contacts

Program Director: Catherine Harris, PhD, MBA, CRNP

Email: Catherine.harris@jefferson.edu

215-503-4704

Campus: Center City, Abington, Dixon

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/nursing/degrees-programs/graduate-certificates/transformative-systems-leadership.html>)

Program Description

The Certificate Program (PGCP) in Transformative Systems Leadership (TSL) is designed for nurses who aspire to advance their leadership skills, build their networks, and prepare for current and future-oriented strategic leadership roles in the ever-changing health care environment.

This flexible and highly collaborative program integrates current evidence, innovative strategies and tools to prepare students as skilled systems thinkers, communicators, creative problem-solvers, and effective change agents within local, regional, national, or global health care contexts. Students are able to pursue rich and varied clinical placements based on self-defined leadership goals.

Program Highlights

Through exposure to a robust selection of coursework students gain skills and insights that are readily transferable to current work settings and to their career advancement. Graduates are eligible, depending on employment role and work history, to apply for nursing administration/executive certification exams offered through the American Nurses Credentialing Center of the American Nurses Association and the American Organization for Nursing Leadership.

Curriculum: 9 Credits

| Code | Title | Credits |
|--------|--------------------------------|---------|
| NU 607 | Trnsfrmng Health Care Delivery | 3 |
| NU 608 | Leadership&Mgmt/Oper Excel | 3 |

| Code | Title | Credits |
|----------------------|-------------------------------|----------|
| NU 609 | Health Econo Finance & Policy | 3 |
| Total Credits | | 9 |

Transformative Systems Leadership (MSN)

College of Pharmacy (JCP)

Interim Dean: Mary Hess, PharmD, FASHP, FCCM, FCCP, BCCCP
 (<https://www.jefferson.edu/academics/colleges-schools-institutes/pharmacy/faculty-staff/faculty/hess.html>)
 College Website (<http://Jefferson.edu/Pharmacy/>)

About Us

Welcome to the Jefferson College of Pharmacy (JCP), an integral part of one of the nation’s premier academic healthcare centers.

Founded in 2008, we have built an innovative Doctor of Pharmacy program that effectively prepares our graduates for interesting and challenging pharmacy practice roles across the health care continuum. Underpinning our curriculum is an accomplished and diverse team of healthcare leaders, teachers, researchers and preceptors (practitioners) who make up our faculty. Collectively, this group brings a broad range of experiences and perspectives to our students, and they are recognized for their leadership in national and international pharmacy and healthcare membership organizations as well as their research in pharmaceuticals, pharmacology, health outcomes, the clinical sciences and related fields.

Our classroom, laboratory and pharmacy-practice experiences at the Jefferson College of Pharmacy are complemented by a wide range of co-curricular and extracurricular activities designed to enable our student pharmacists to become competent and confident practitioners who apply their knowledge and skills to care for individual patients as well as improve the overall health of our community. With a strong emphasis on leadership skills and social responsibility, JCP graduates are prepared to make an impact!

Interprofessional Education

Since matriculating its first class in the Fall of 2008, the Jefferson College of Pharmacy has embraced inter-professional education (IPE) and has been an active member of the Jefferson Center for Interprofessional Practice and Education. Beginning their first semester on campus, JCP student pharmacists participate in required IPE activities. These activities include students from many other Jefferson programs including couple and family therapy, medical laboratory sciences, medicine, nursing, occupational therapy, physical therapy and physician’s assistant. In addition to the formal IPE activities, students may also participate in numerous co-curricular IPE activities. We also have affiliations with a broad range of clinical practice sites where team-based collaborative care is the standard of practice. JCP student pharmacists have the opportunity to observe and practice team-based collaborative care at increasing levels of engagement as they proceed through the four-year Doctor of Pharmacy curriculum.

As a result of its efforts in IPE, JCP faculty have been invited to numerous national meetings to share what they have learned and to showcase IPE activities. Numerous JCP student pharmacists have also had the opportunity to present or publish reports of their IPE

experiences. Many prospective student pharmacists have identified Jefferson’s IPE as a reason for selecting Jefferson as their Pharmacy College of choice. In addition, many incoming students have identified the ability to work with inter-professional healthcare teams among their top ten reasons for attending Jefferson.

Academic Programs Graduate

- Pharmaceutical Sciences (MS) (p. 155)
- Pharmacy (PharmD) (p. 156)
- Population Health Pharmacy (MS) (p. 158)

Certificate

- Population Health Pharmacy (Graduate Certificate) (p. 157)

Accelerate/Dual Degree

- Pharmacy (PharmD) & Public Health (MPH) (p. 157)

University Accreditations (<https://www.jefferson.edu/about/consumer-information-disclosures.html>)

Pharmaceutical Sciences (MS)

Contacts

Program Director: Alok Bhushan, PhD

Email: Alok.Bhushan@jefferson.edu
 215-503-5039

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/pharmacy/programs/ms-pharmaceutical-sciences.html>)

Program Description

The MS program in Pharmaceutical Sciences is housed in the Jefferson College of Pharmacy (JCP) and offered in collaboration with Jefferson College of Life Sciences. The program may be completed on either a full-time or part-time course of study and students enrolling in this 34 credit MS program may select either a thesis or non-thesis track.

The curriculum provides instruction in all phases of the drug and biologic development process, including preclinical drug discovery and development (computational design and synthesis of new molecular entities and molecular characterization), screening and formulation, analytical support for clinical trials, health care pharmacogenomics profiling, metabolite analysis, pharmacokinetic characterization and pharmacodynamics.

Learning Goals/Outcomes

- Graduates will demonstrate expertise in the design and application of research methodologies to meet the needs of the evolving biomedical and pharmaceutical industries and academic laboratories.
- Graduates of this program will be prepared for employment as Research Technicians/Assistants in various laboratories in academic institutions and the pharmaceutical industry.

- Graduates will be prepared to pursue further education and training, including Ph.D degree programs.

Thesis Track

- Curriculum: 2 Years, 34 Credits

| Course | Title | Credits |
|----------------------|--------------------------------|-----------|
| First Year | | |
| PSCI 704 | Molecular Pharm Sciences | 3 |
| PSCI 707 | Drug Discovery | 2 |
| GC 660 | Statistical Methods | 3 |
| PSCI 703 | PharmaceuticalSciencesRotation | 1 |
| PSCI 705 | Biological Pharm Sciences | 3 |
| PSCI 702 | Research Foundation & Ethics | 1 |
| PSCI 799 | Pharmaceutical Sciences Resrch | 3 |
| PSCI 706 | Spec Techniq in Pharm Sciences | 2 |
| PSCI 798 | Pharmaceutical Sciences Pract | 1 |
| Credits | | 19 |
| Summer | | |
| PSCI 799 | Pharmaceutical Sciences Resrch | 1 |
| Credits | | 1 |
| Second Year | | |
| PSCI 708 | Pharma Biotech in Drug Develop | 2 |
| General Elective | | 2 |
| PSCI 709 | Scientific Writing | 2 |
| PSCI 799 | Pharmaceutical Sciences Resrch | 4 |
| PSCI 701 | PharmaceuticalSciences Seminar | 1 |
| General Elective | | 2 |
| General Elective | | 2 |
| Credits | | 15 |
| Total Credits | | 35 |

Non-Thesis Track

- Curriculum: 2 Years, 34 Credits

| Course | Title | Credits |
|----------------------|--------------------------------|-----------|
| First Year | | |
| PSCI 704 | Molecular Pharm Sciences | 3 |
| PSCI 707 | Drug Discovery | 2 |
| GC 660 | Statistical Methods | 3 |
| PSCI 703 | PharmaceuticalSciencesRotation | 1 |
| PSCI 705 | Biological Pharm Sciences | 3 |
| PSCI 702 | Research Foundation & Ethics | 1 |
| PSCI 798 | Pharmaceutical Sciences Pract | 3 |
| PSCI 706 | Spec Techniq in Pharm Sciences | 2 |
| Credits | | 18 |
| Summer | | |
| PSCI 798 | Pharmaceutical Sciences Pract | 1 |
| Credits | | 1 |
| Second Year | | |
| PSCI 708 | Pharma Biotech in Drug Develop | 2 |
| General Elective | | 2 |
| PSCI 709 | Scientific Writing | 2 |
| PSCI 798 | Pharmaceutical Sciences Pract | 2 |
| PSCI 701 | PharmaceuticalSciences Seminar | 1 |
| General Elective | | 2 |
| General Elective | | 2 |
| Credits | | 13 |
| Total Credits | | 32 |

Pharmacy (PharmD)

Contacts

Program Director: Mary M. Hess, PharmD, FASHP, FCCM, FCCP, BCCCP

Email: Mary.Hess@jefferson.edu
215-503-6448

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/pharmacy/programs/doctor-of-pharmacy.html>)

- **Accreditation:** Council for Pharmacy Education

Program Description

The JCP Doctor of Pharmacy (PharmD) curriculum prepares its graduates to provide patient-centered and population-based care that ensures optimal health outcomes to practice in diverse patient care environments and become valued members of healthcare team. JCP graduates will embrace life-long, self-directed learning.

Throughout the curriculum, faculty incorporate active learning, simulated patient-care experiences, and other strategies to facilitate the continued development and application of critical thinking and clinical skills. Team-based learning is also used extensively throughout the curriculum. The curriculum has been created vertically such that material learned in earlier years is further developed and built upon in the later years. Student pharmacists participate in interprofessional education and diverse co-curricular activities, and if interested, have opportunities for research and scholarly activities that contribute to their personal and professional growth.

The Accreditation Council for Pharmacy Education (ACPE) accredited the Doctor of Pharmacy program through June 30, 2026.

Learning Goals/Outcomes

- The knowledge, understanding and application of biomedical sciences, pharmaceutical sciences, social/behavioral /administrative sciences and clinical sciences
- The ability to think critically and problem solve
- Effective communication through written and verbal means
- The highest level of professional, legal and ethical behavior
- The professional acumen to identify & analyze emerging health-related issues
- A working knowledge of how legislation, regulations and related programs affect the practice of pharmacy

Curriculum: 4 Years, 140 Credits

| Course | Title | Credits |
|-------------------|--------------------------------|-----------|
| First Year | | |
| Fall | | |
| PHRM 510 | Biochemistry | 3 |
| PHRM 512 | Preventive HC and SelfCare Iss | 2 |
| PHRM 514 | Pathophysiology I | 3 |
| PHRM 516 | Pharmacy Practice I | 1 |
| PHRM 519 | Healthcare Delivery Systems | 2 |
| PHRM 522 | IPPE:HealthcareServiceLearning | 1 |
| PHRM 525 | Immunology | 3 |
| PHRM 559 | Intro to Pharm Practice Lab | 1 |
| Credits | | 16 |

| Course | Title | Credits |
|---------------------------|-----------------------------------|--------------------|
| Spring | | |
| PHRM 511 | Biostatistics | 3 |
| PHRM 513 | Medicinal Chemistry | 2 |
| PHRM 515 | Pathophysiology II | 3 |
| PHRM 517 | Pharmacy Practice II | 1 |
| PHRM 520 | Molecular and Cell Biology | 3 |
| PHRM 523 | IPPE: Community Pharmacy | 1 |
| PHRM 526 | PhysAssess & Clinical Skills | 1 |
| PHRM 592 | Intro to Pharm Practice Lab II | 1 |
| PHRM 584 | Student Pharm Enrichment 1 | 0.25 |
| Credits | | 15.25 |
| Second Year | | |
| Fall | | |
| PHRM 521 | Pharmaceutical Calculations | 2 |
| PHRM 527 | Drug Info & Literature Eval | 3 |
| PHRM 528 | IPPE: Hospital Pharmacy | 1 |
| PHRM 529 | Medication Safety | 2 |
| PHRM 530 | Pharm and Drug Delivery Sys | 3 |
| PHRM 531 | Pharmaceuticals Laboratory | 1 |
| PHRM 533 | Pharm Management: Theory & App | 3 |
| PHRM 534 | Pharmacy Practice III | 1 |
| PHRM 549 | Pharmacology I | 3 |
| Credits | | 19 |
| Spring | | |
| PHRM 535 | Biopharm&PrinClinPharmacokinetics | 3 |
| PHRM 537 | IPPE: Ambulatory Care | 1 |
| PHRM 538 | Pharmacy Practice IV | 1 |
| PHRM 542 | Pharmacy Practice Lab I | 1 |
| PHRM 554 | ClinDiagnosis/Pharmacotherapy I | 2 |
| PHRM 555 | ClinDiagnosis/Pharmacotherapy II | 2 |
| PHRM 556 | Pharmacology II | 3 |
| PHRM 585 | Student Pharm Enrichment 2 | 0.25 |
| General Electives | | 2-3 |
| Credits | | 15.25-16.25 |
| Third Year | | |
| Fall | | |
| PHRM 539 | Pharmacology III | 3 |
| PHRM 544 | ClinDiag&Pharmacotherapy IV | 3 |
| PHRM 545 | Pharmacy Practice Lab II | 1 |
| PHRM 550 | Interprofessional Grand Rounds | 2 |
| PHRM 557 | ClinDiag & Pharmacotherapy III | 3 |
| PHRM 558 | IPPE: Direct Inpatient Care | 2 |
| General Electives | | 2-3 |
| Credits | | 16-17 |
| Spring | | |
| PHRM 546 | ClinDDX/Pharmacotherapy V | 3 |
| PHRM 547 | ClinDDX/Pharmacotherapy VI | 3 |
| PHRM 548 | Pharmacy Practice Lab III | 1 |
| PHRM 551 | Pharmacoecon & Hlth Outcomes | 3 |
| PHRM 552 | Integrated Practice Apps | 1 |
| PHRM 553 | Professional Seminar I | 2 |
| PHRM 568 | IPPE: Elective Site | 2 |
| PHRM 610 | Pharmacy Law | 1 |
| PHRM 586 | Student Pharm Enrichment 3 | 0.25 |
| General Electives | | 2-3 |
| Credits | | 18.25-19.25 |
| Fourth Year | | |
| Summer/Fall/Spring | | |
| PHRM 589 | Pharmacy Board Review | 1 |
| PHRM 630 | APPE: Community Pharmacy | 6 |

| Course | Title | Credits |
|----------------------|-----------------------------|----------------|
| PHRM 640 | APPE: Hospital Pharmacy | 6 |
| PHRM 650 | APPE: Ambulatory Care | 6 |
| PHRM 660 | APPE: Direct Inpatient Care | 6 |
| PHRM 670 | APPE: Direct Patient Care | 6 |
| PHRM 680 | APPE: Elective Site | 6 |
| PHRM 587 | Student Pharm Enrichment 4 | 0.25 |
| Credits | | 37.25 |
| Total Credits | | 137-140 |

Pharmacy (PharmD) & Public Health (MPH)

Contacts

Program Director: Elena Umland, PharmD, FNAP

Email: Elena.Umland@jefferson.edu
215-503-9087

Program Director: Rosemary (Rosie) Frasso, PhD, MSc, CPH

Email: Rosemary.Frasso@jefferson.edu
215-503-8901

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/population-health/degrees-programs/public-health/pathways/dual-degrees/PharmDMPH.html>)

Program Description

The PharmD/MPH recognizes the growing synergy between pharmacy services and public health services and reflects the growing interest among professionals to seek advanced graduate training in research methods, leadership, and population health.

PharmD/MPH students may apply to the MPH degree program anytime following their matriculation into the PharmD program year or within 3 years of graduation.

Students may complete the degree on a full-time or part-time basis. PharmD/MPH students complete 45 credits of MPH coursework. Of note, 12 credits of this are transferred from the PharmD curriculum. A graduate certificate in public health maybe obtained following the completion of 17 MPH course credits. Students work closely with faculty to design and complete an independent research MPH project on a topic of their choice.

Students may complete the degree on a full-time or part-time basis. PharmD/MPH students complete 45 credits of MPH coursework. Of note, 12 credits of this are transferred from the PharmD curriculum. A graduate certificate in public health maybe obtained following the completion of 17 MPH course credits. Students work closely with faculty to design and complete an independent research project on a topic of their choice.

Population Health Pharmacy (Graduate Certificate)

Contacts

Program Director: Emily R. Hajjar, PharmD, MS, BCPS, BCACP, BCGP

Email: Emily.Hajjar@jefferson.edu
215-503-8522

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/pharmacy/programs/ms-population-health-pharmacy.html>)

Program Description

The Graduate Certificate in Population Health Pharmacy requires the completion of 15 credits, all of which can be applied to the MS in Population Health Pharmacy.

Students can begin the program in the Fall (September) or Spring (January) terms. All courses will be offered online in an asynchronous manner by experienced faculty. Two, 7-week terms will be offered for the Fall, Spring, and Summer semesters. Courses will be offered in a manner that allows students to graduate in as little as 2 years.

Learning Goals

- Assess the impact of the determinants of health on medication use outcomes.
- Evaluate medication use in diverse populations using pharmacy informatics, biostatistical, pharmacoepidemiologic, and pharmacoeconomic principles
- Design and optimize strategies to improve health outcomes associated with medication use.

Curriculum: 15 Credits

- can be applied to the MS in Population Health Pharmacy

| Code | Title | Credits |
|----------------------|-----------------------------------|-----------|
| HPL 500 | US Healthcare Org & Delivery | 3 |
| POP 500 | Essentials of PopulationHealth | 3 |
| PHP 501 | Pharmacoepidemiology ¹ | 3 |
| PHP 504 | Pharm Informatics&Hlthcre Data | 3 |
| PHP 505 | Pharmacy Benefit Design | 3 |
| Total Credits | | 15 |

¹ Required for the Graduate Certificate in Population Health Pharmacy

Population Health Pharmacy (MS)

Contacts

Program Director: Emily R. Hajjar, PharmD, MS, BCPS, BCACP, BCGP

Email: Emily.Hajjar@jefferson.edu
215-503-8522

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/pharmacy/programs/ms-population-health-pharmacy.html>)

Program Description

Population Health Pharmacy focuses on the impact of the distribution of health determinants on those receiving medication management services from pharmacists. This also includes the strategies used to improve health outcomes associated with medication use. With the rising healthcare costs and limited resources, pharmacists play an integral role in population health and there is an increasing demand for pharmacists with this expertise. The Population Health Pharmacy degree

is a collaborative effort between the Jefferson College of Pharmacy and the Jefferson College of Population Health designed to give practicing pharmacists expertise in population health pharmacy. By leveraging pharmacy-specific knowledge with population health principles, these graduates will be poised to meet the needs of the current resource-limited, fragmented US healthcare system.

The MS in Population Health Pharmacy requires completion of 33 credits and includes a capstone presentation after completing all coursework.

Students can begin the program in the Fall (September) or Spring (January) terms. All courses will be offered online in an asynchronous manner by experienced faculty. Two, 7-week terms will be offered for the Fall, Spring, and Summer semesters. Courses will be offered in a manner that allows students to graduate in as little as 2 years.

Learning Goals/Outcomes

- Assess the impact of the determinants of health on medication use outcomes.
- Evaluate medication use in diverse populations using pharmacy informatics, biostatistical, pharmacoepidemiologic, and pharmacoeconomic principles.
- Design and optimize strategies to improve health outcomes associated with medication use.

Curriculum: 33 Credits

| Code | Title | Credits |
|----------------------|---|-----------|
| HPL 500 | US Healthcare Org & Delivery ¹ | 3 |
| POP 500 | Essentials of PopulationHealth ¹ | 3 |
| HQS 500 | Intro Healthcare Qual & Safety | 3 |
| HPL 506 | HealthPolicy:Analysis&Advocacy | 3 |
| PHP 501 | Pharmacoepidemiology ¹ | 3 |
| PHP 502 | Applied Pharmacoeconomics | 3 |
| PHP 503 | Ev-Based Med & Care Pathwy Dev | 3 |
| PHP 504 | Pharm Informatics&Hlthcre Data ¹ | 3 |
| PHP 505 | Pharmacy Benefit Design ¹ | 3 |
| PHP 506 | Course PHP 506 Not Found | 3 |
| PHP 507 | Course PHP 507 Not Found | 3 |
| Total Credits | | 33 |

¹ Required for the Graduate Certificate in Population Health Pharmacy

College of Population Health (JCPH)

Dean: Willie H.(Billy) Oglesby, PhD, MBA, MSPH, FACHE | 215-503-0174
College Website (<http://www.Jefferson.edu/PopulationHealth/>)

About Us

As the first college of population health established in the United States, we have an unwavering focus on improving population health in the United States and around the world. We prepare leaders with the knowledge and skills necessary to transform the delivery of health services by working within and across these critical stakeholder groups: healthcare providers and delivery systems; health insurance companies and third-party payers; drug and device manufacturers;

technology companies; management consulting firms; and community organizations.

We offer graduate programs in all key areas of population health improvement:

- Applied Health Economics and Outcomes Research
- Health Data Science
- Health Policy
- Healthcare Quality and Safety
- Operational Excellence
- Population Health Science
- Population Health
- Public Health

Adopting a population health perspective is more than just understanding clinical operations, insurance policies or health education resources. It is about integrating all of the factors that affect a person's health to inform and improve the healthcare delivery system. Since our founding in 2008, Jefferson College of Population Health's faculty and staff have defined (and refined) what it means to study population health. The College has launched two doctoral programs and seven masters and certificate programs in the discipline; maintained one of the nation's premier Health Economics and Outcomes Research Fellowship programs, and recruited healthcare professionals from across the country to immerse themselves in the study and practice of population health.

Our mission is to help prepare leaders for the dramatic changes occurring in our nation's public health and healthcare systems. These systems are going through a radical transformation and we are excited to be doing our part to prepare the leaders of today—and tomorrow! At JCPH, you will explore the policies and forces that define the health and well-being of populations. Through your studies, you will develop the knowledge and skills necessary to examine the social determinants of health and to evaluate, develop, and implement health policies and systems that will improve the health of populations. The faculty and staff at JCPH are committed to providing guidance and support, not only as you progress through the program, but beyond, as well.

Innovations in Education

Since the debut of the online programs in 2010, Jefferson College of Population Health (JCPH) has drawn upon best practices in online education to enhance learning and expand each student's critical thinking skills. In addition to enjoying the independence and flexibility these programs offer, students expand their professional networks through the College's thriving online communities. They grow as leaders in Population Health.

The engaging, practice-oriented experience of online study at JCPH begins with a comprehensive orientation to our unique model of online instruction, providing a smooth transition into each program's coursework, and connecting students with their faculty and peers.

Throughout a student's course of study, each online classroom's learning community centers its activities around weekly discussions. Course lessons, the framework for these conversations, are developed and curated in a proprietary content management system, GRAVITAS. Through GRAVITAS instructors and their support teams work together designing timely, state-of-the-art online courses. GRAVITAS accelerates the delivery of content from expert to student through built-in course

templates, lesson design guidelines, and proven methods for delivery of professional education online.

JCPH also offers diverse learning opportunities for professionals to enhance their skills and update their awareness of the issues and challenges inherent in today's evolving health care environment:

- Population Health Academy Workforce Development Programs
- Population Health Colloquium
- Dr. Raymond C. Grandon Lecture
- Innovation in Personalized Medicine and Population Health Speaker Series
- PopTalk Webinar Series
- COVID-19: Spread the Science, NOT the Virus Webinar Series
- Continuing Pharmacy Education
- Quality Improvement & Patient Safety Leadership Development Program (QIPS)

Academic Programs

Graduate

- Applied Health Economics & Outcomes Research (MS) (p. 160)
- Health Data Science (MS) (p. 163)
- Health Policy (MS) (p. 164)
- Healthcare Quality & Safety (MS) (p. 167)
- Operational Excellence (MS) (p. 171)
- Population Health (DHSc) (p. 173)
- Population Health (MS) (p. 174)
- Population Health Science (PhD) (p. 176)
- Public Health (MPH) (p. 178)
- Public Health (MPH) (p. 179)

Certificate

- Applied Health Economics & Outcomes Research (Graduate Certificate) (p. 160)
- Health Data Science (Graduate Certificate) (p. 162)
- Health Policy (Graduate Certificate) (p. 164)
- Healthcare Quality & Safety (Advanced Practice Certificate) (p. 166)
- Healthcare Quality & Safety (Graduate Certificate) (p. 166)
- Operational Excellence (Advanced-Practice Certificate) (p. 170)
- Operational Excellence (Graduate Certificate) (p. 171)
- Population Health (Advanced -Practice Certificate) (p. 172)
- Population Health (Graduate Certificate) (p. 173)
- Public Health (Graduate Certificate) (p. 177)

Accelerated & Dual Degrees

- Emergency and Disaster Management (MS) & Public Health (MPH) (p. 161)
- Law (JD) & Public Health (MPH) (p. 169)
- Medicine (MD) & Public Health (MPH) & (DO/MPH) (p. 169)
- Nursing (PhD) & Public Health (MPH) (p. 170)
- Pharmaceutical Science (PharmD) & Public Health (MPH) (p. 172)
- Social Work (MSS) & Public Health (MPH) (p. 179)

University Accreditations (<https://www.jefferson.edu/about/consumer-information-disclosures.html>)

Applied Health Economics & Outcomes Research (Graduate Certificate)

Contacts

Program Director: Vittorio Maio, PharmD, MSPH

Email: Vittorio.Maio@jefferson.edu

215-955-1821

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/population-health/degrees-programs/applied-health-economics.html>)

Program Description

Applied Health Economics & Outcomes Research (AHEOR)

- is an academic discipline that establishes the efficacy of a product, service, or treatment
- compares its effectiveness to other interventions
- considers its incremental cost efficiency to determine optimal clinical application and overall economic value.

Graduate Certificate

The Graduate Certificate focuses on the foundations of AHEOR. This option contains five online courses and can be completed in one year.

Program Outcomes

The AHEOR program prepares graduates to be successful in the ever-changing healthcare environment driven by data and analytics by preparing them to:

Graduate Certificate

- Compare historical trends to current issues in U.S. healthcare organization, delivery and financing.
- Explore the impact of government policies on health insurance products.
- Examine the strengths and weaknesses of research design and statistical methods in evaluating product or service efficacy.
- Discuss the key concepts and applications of quantitative modeling in economic evaluations in health care.

Curriculum: 1 Year

| Code | Title | Credits |
|-----------------------------|-------------------------------|---------|
| Graduate Certificate | | |
| AHE 501 | Economics of Health Insurance | 3 |
| AHE 502 | Statistics I | 3 |
| AHE 504 | Economic Modeling I | 3 |
| AHE 506 | SubjectiveOutcomesHealthEval | 3 |

| Code | Title | Credits |
|----------------------|--------------------------------|-----------|
| AHE 509 | Epi & Evidnc Outcomes Research | 3 |
| Total Credits | | 15 |

Applied Health Economics & Outcomes Research (MS)

Contacts

Program Director: Vittorio Maio, PharmD, MSPH

Email: Vittorio.Maio@jefferson.edu

215-955-1821

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/population-health/degrees-programs/applied-health-economics.html>)

Program Description

Applied Health Economics & Outcomes Research (AHEOR)

- is an academic discipline that establishes the efficacy of a product, service, or treatment
- compares its effectiveness to other interventions
- considers its incremental cost efficiency to determine optimal clinical application and overall economic value.

Master's Degree

The Masters of Science (MS) builds upon the foundation concepts presented in the Graduate Certificate and focuses on the advanced application of concepts necessary for the modern practice of AHEOR in research and industry settings. This option contains ten online courses and a capstone project, which is specifically designed to enhance the student's career trajectory. This option can be completed in two years.

Two track options allow students to focus their studies in AHEOR:

Industry Track

The industry track will prepare students to manage HEOR research in the industry (e.g., Pharma, Insurance, Payers). It will provide students with information on up-to-date HEOR tools, competencies in HEOR analysis and interpretation, as well as applicability and meaningfulness of HEOR evidence. The target audience will include individuals who wish to start a career in the healthcare industry, individuals in industry who want to expand/advance/re-tool their career, individuals in payer/insurance environment who want to learn how HEOR fits in their sector, and individuals in pharmacy space who want to expand/advance/re-tool their career.

Research Track

The research track will prepare students to conduct HEOR research. It will provide students with strong analytical and statistical competencies. The targeted audience will include individuals with a BS who want to perform HEOR research in industry/consulting firm/insurance, and individuals interested in pursuing a PhD program but still undecided.

Program Outcomes

The AHEOR program prepares graduates to be successful in the ever-changing healthcare environment driven by data and analytics by preparing them to:

Graduate Certificate

- Compare historical trends to current issues in U.S. healthcare organization, delivery and financing.
- Explore the impact of government policies on health insurance products.
- Examine the strengths and weaknesses of research design and statistical methods in evaluating product or service efficacy.
- Discuss the key concepts and applications of quantitative modeling in economic evaluations in health care.

Master's Degree (Above Plus)

Apply analytic methods (e.g., burden of illness, evidence evaluation, statistics and research design, financial impact, cost-effectiveness, and decision analysis) to inform resource allocation, relative value assessments, and policy initiatives.

- Interpret and apply conceptual frameworks used in HEOR, such as economic metrics (e.g., cost-effectiveness), quality of life evaluations (e.g., utilities and patient-reported outcomes) and healthcare technology assessment evaluations from an international perspective (e.g., budget impact analysis, guidelines, formularies, and utilization incentives and disincentives).
- Communicate policy implications to various stakeholders and decision-makers that reflect AHEOR concepts and techniques.
- Conduct and manage HEOR projects in real-world healthcare settings
- Assume leadership roles in the decision process regarding the allocation of healthcare resources.

Industry Track

Curriculum: 2 Years

| Code | Title | Credits |
|---|--------------------------------|-----------|
| Master of Science | | |
| Graduate Certificate courses plus: | | |
| AHE 505 | Statistics II | 3 |
| AHE 510 | Adv Res Meth for Appl Obs Stud | 3 |
| AHE 512 | Economic Modeling II | 3 |
| AHE 507 | Claims-Based AHEOR | 3 |
| AHE 508 | Intl Health Tech Assessment | 3 |
| AHE 652 | Strat Capstone Portfolio&Pres | 3 |
| Total Credits | | 18 |

Research Track

Curriculum: 2 Years

| Code | Title | Credits |
|---|--------------------------------|-----------|
| Master of Science | | |
| Graduate Certificate courses plus: | | |
| AHE 505 | Statistics II | 3 |
| AHE 510 | Adv Res Meth for Appl Obs Stud | 3 |
| AHE 512 | Economic Modeling II | 3 |
| HDS 500 | Fundamentals of Data Wrangling | 3 |
| HDS 502 | Advanced Data Analysis | 3 |
| AHE 651 | Capstone Research Project | 3 |
| Total Credits | | 18 |

Emergency and Disaster Management (MS) & Public Health (MPH)

Contacts

Program Director: MPH: Rosemary (Rosie) Frasso, PhD, MSc, CPH
Email: Rosemary.Frasso@jefferson.edu
 215-503-8901

Program Director: MS: David Nitsch, BS, MPH, NREMT-P,
Email: David.Nitsch@jefferson.edu

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/departments-programs/emergency-disaster-management/edm-mph.html>)

Program Description

The EDM/MPH dual degree is a partnership between the Master of Science in Emergency & Disaster Management (EDM) degree program at the Jefferson College of Health Professions (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions.html>) (JCHP) and the Master of Public Health (MPH) degree program at the Jefferson College of Population Health (<https://www.jefferson.edu/academics/colleges-schools-institutes/population-health.html>) (JCPH) that offers an opportunity for students to prepare to work at the intersection of public health and emergency and disaster management. When a disaster strikes or health emergency arises, nimble, well-trained professionals need to be ready to restore order, organize response, and quickly establish interventions to protect health and address pressing needs to food, water, or health care in affected communities.

Curriculum: 63 Credits

- sequence varies

| Code | Title | Credits |
|-------------------|--------------------------------|---------|
| MPH | | |
| PBH 501 | Foundations of Public Health | 3 |
| PBH 500 | Foundations of US HC System | 3 |
| PBH 502 | Society,Behavior&Environment | 3 |
| PBH 504 | Fundamentals of Stat for Rsrch | 3 |
| or PBH 505 | Fund of Stats for Practice | |
| PBH 506 | Fundamentals of Epidemiology | 3 |
| PBH 509 | Foundation of Policy&Advocacy | 3 |
| PBH 510 | Health Research Methods | 3 |
| PBH 520 | Program Planning & Evaluation | 3 |
| PBH 651 | Clerkship Applied Practice Exp | 0 |
| PBH 609 | GIS Mapping | 3 |
| General Electives | | 9 |
| DMM | | |
| EDM 610 | Foundations in Emergency Mgmt | 3 |
| EDM 631 | Org Mgmt & Comm in Disasters | 3 |
| EDM 635 | Pysch Aspects of Disasters | 3 |
| EDM 639 | Prin of Disaster Exce & Drills | 3 |
| EDM 640 | Logistic Mgmt for Disasters | 3 |
| EDM 643 | Public Health ImplOf Disasters | 3 |
| EDM 755 | Cap Exp in Disaster Med & Mgmt | 3 |

| Code | Title | Credits |
|----------------------|-------|-----------|
| General Electives | | 6 |
| Total Credits | | 63 |

Emergency and Disaster Management (MS) & Public Health (MPH)

Contacts

Program Director: EDM David Nitsch, BS, MPH, NREMT-P

Email: David.Nitsch@jefferson.edu

Program Director: MPH: Rosemary (Rosie) Frasso, PhD, MSc, CPH

Email: Rosie.Frasso@jefferson.edu

Program Description

The EDM/MPH dual degree is a partnership between the Master of Science in Emergency & Disaster Management (EDM) degree program at the Jefferson College of Health Professions (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions.html>) (JCHP) and the Master of Public Health (MPH) degree program at the Jefferson College of Population Health (<https://www.jefferson.edu/academics/colleges-schools-institutes/population-health.html>) (JCPH) that offers an opportunity for students to prepare to work at the intersection of public health and emergency and disaster management. When a disaster strikes or health emergency arises, nimble, well-trained professionals need to be ready to restore order, organize response, and quickly establish interventions to protect health and address pressing needs to food, water, or health care in affected communities.

Curriculum: 63 credits

- Sequence varies

| Code | Title | Credits |
|------------------|---------------------------------|---------|
| MPH | | |
| PBH 500 | Foundations of US HC System | 3 |
| PBH 501 | Foundations of Public Health | 3 |
| PBH 502 | Society, Behavior & Environment | 3 |
| PBH 504 | Fundamentals of Stat for Rsrch | 3 |
| or PBH 505 | | |
| PBH 506 | Fundamentals of Epidemiology | 3 |
| PBH 509 | Foundation of Policy & Advocacy | 3 |
| PBH 510 | Health Research Methods | 3 |
| PBH 520 | Program Planning & Evaluation | 3 |
| PBH 609 | GIS Mapping | 3 |
| PBH 651 | Clerkship Applied Practice Exp | 0 |
| General Elective | | 9 |
| DMM | | |
| EDM 610 | Foundations in Emergency Mgmt | 3 |
| EDM 631 | Org Mgmt & Comm in Disasters | 3 |
| EDM 635 | Pysch Aspects of Disasters | 3 |
| EDM 639 | Prin of Disaster Exce & Drills | 3 |
| EDM 640 | Logistic Mgmt for Disasters | 3 |
| EDM 643 | Public Health ImplOf Disasters | 3 |

| Code | Title | Credits |
|------------------|--------------------------------|---------|
| EDM 755 | Cap Exp in Disaster Med & Mgmt | 3 |
| General Elective | | 6 |

Health Data Science (Graduate Certificate)

Contacts

Program Director: Richard W. Hass, PhD

Email: Richard.Hass@jefferson.edu

Campus: Center City

Program Website: (<https://www.jefferson.edu/academics/colleges-schools-institutes/population-health/degrees-programs/health-data-science.html>)

Program Description

Health Data Science (previously known as Population Health Intelligence) is an ever-evolving multi-disciplinary field that involves using statistical inference, algorithmic development, and technology to make insights about data.

To uncover actionable insights, skilled healthcare data scientists are needed to:

- Combine large disparate data sources
- Build statistical and predictive models
- Create effective data visualizations
- Communicate findings to technical and non-technical audiences

Graduate Certificate

The Graduate Certificate focuses on the foundations of HDS. This option contains five online courses and can be completed in one year.

Program Outcomes

The HDS program prepares graduates to be successful in the ever-changing healthcare environment that is driven by data and analytics by preparing them to:

Graduate Certificate

- Explores the vital roles of data, information, and information systems in the implementation and evaluation of healthcare and value-based care initiatives
- Provides a comprehensive overview of data science, the practice of obtaining, modeling and interpreting data
- Adopt data visualization techniques that contribute to effective presentations and dashboards
- Provides a foundation for population health beginning with a working definition, incorporating public health science and policy.

Curriculum: 1 Year

| Code | Title | Credits |
|-----------------------------|--------------------------------|---------------------------------|
| Graduate Certificate | | |
| AHE 501 | Economics of Health Insurance | 3 |
| or POP 500 | | Essentials of Population Health |
| AHE 502 | Statistics I | 3 |
| HDS 501 | Health Informatics & Analytics | 3 |

| Code | Title | Credits |
|----------------------|--------------------|-----------|
| HDS 518 | Data Science I | 3 |
| HDS 532 | Data Visualization | 3 |
| Total Credits | | 15 |

Health Data Science (MS)

Contacts

Program Director: Richard W. Hass, PhD

Email: Richard.Hass@jefferson.edu

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/population-health/degrees-programs/health-data-science.html>)

Program Description

Health Data Science (previously known as Population Health Intelligence) is an ever-evolving multi-disciplinary field that involves using statistical inference, algorithmic development, and technology to make insights about data.

To uncover actionable insights, skilled healthcare data scientists are needed to:

- Combine large disparate data sources
- Build statistical and predictive models
- Create effective data visualizations
- Communicate findings to technical and non-technical audiences
- Acquire and provide data analytics leadership for their organizations

Master’s Degree

The Master of Science (MS) builds upon the foundation concepts presented in the Graduate Certificate and focuses on the advanced application of HDS concepts necessary for the applied practice of health data science in industry and research settings. This option contains 10 online courses and a capstone project, which is specifically designed to enhance the student’s career trajectory. This option can be completed in two years.

Two track options allow students to focus their studies in HDS:

Management Track

The Management Track prepares students to lead data science initiatives in their organizations (whether providers, payers, vendors, employers, consulting, or governmental agencies) of steadily increasing scope and importance. This track provides students with competencies in the latest HDS methods including statistics and predictive analytics, as well as the ability to interpret the results of, and gain insights on, data. These competencies provide graduates with the practical expertise to help improve the demonstrable quality, safety, and value of their organizations. It develops skills to plan and lead evidence-based practice implementations. This track targets students early in their careers who seek leading roles that require technical expertise, as well as more seasoned professionals (including clinicians) who aspire to become mission-critical chief analytics officers for their organizations.

Research Track

The Research Track will prepare students to conduct HDS research either academically or as a part of an organization. Students acquire

competencies in data wrangling, statistical and predictive analytics, and the latest machine learning methods for work on real-world HDS projects. The targeted audience includes individuals who seek the technical expertise to lead HDS research efforts with providers, payers, employers, data vendors, consulting, and governmental agencies.

Program Outcomes

The HDS program prepares graduates to be successful in the ever-changing healthcare environment that is driven by data and analytics by preparing them to:

Graduate Certificate

- Explores the vital roles of data, information, and information systems in the implementation and evaluation of healthcare and value-based care initiatives
- Provides a comprehensive overview of data science, the practice of obtaining, modeling and interpreting data
- Adopt data visualization techniques that contribute to effective presentations and dashboards
- Provides a foundation for population health beginning with a working definition, incorporating public health science and policy.

Master’s Degree (Above Plus)

All Tracks

- Evaluate and apply multivariate statistical methodologies for various study designs of efficiency and effectiveness in healthcare

Management Track

- Apply management and leadership skills to data-driven decision-making and learn to communicate with technical and non-technical audiences
- Manage HDS projects in real-world healthcare settings
- Addresses implementation science and presents a multidisciplinary framework and methodology to promote the integration of scientific evidence into healthcare practice, policy and research

Research Track

- Learn key programming techniques for data wrangling, statistical modeling and predictive analytics
- Learn advanced data science methods including supervised and unsupervised learning algorithms
- Conduct HDS research in real-world healthcare settings

Management Track

Curriculum: 2 Years

| Code | Title | Credits |
|---|--------------------------------|-----------|
| Master of Science | | |
| Graduate Certificate courses plus: | | |
| AHE 505 | Statistics II | 3 |
| AHE 509 | Epi & Evidnc Outcomes Research | 3 |
| HDS 538 | Implementation Science | 3 |
| HDS 527 | Analytics Leadership | 3 |
| HDS 652 | Strat Capstone Portfolio&Pres | 3 |
| Elective in HDS or AHE (PD Approval) | | 3 |
| Total Credits | | 18 |

Research Track Curriculum: 2 Years

| Code | Title | Credits |
|---|--------------------------------|-----------|
| Master of Science | | |
| Graduate Certificate courses plus: | | |
| AHE 505 | Statistics II | 3 |
| HDS 500 | Fundamentals of Data Wrangling | 3 |
| HDS 502 | Advanced Data Analysis | 3 |
| HDS 519 | Data Science II | 3 |
| Elective in HDS or AHE (PD Approval) | | 3 |
| HDS 651 | Capstone Research Project | 3 |
| Total Credits | | 18 |

Both tracks culminate in a Capstone Project, which incorporates knowledge and skills gained through the Master's Program education. The Capstone should advance knowledge which can be applied to the student's discipline and/or organization.

Health Policy (Graduate Certificate)

Contacts

Program Director: Willie (Billy) H. Oglesby, PhD, MBA, MSPH, FACHE

Email: Billy.Oglesby@Jefferson.edu

215-955-6648

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/population-health/degrees-programs/health-policy.html>)

Program Description

Health Policy explores the advancement and implementation of health law, regulations, or voluntary practices that influence systems development, organizational change, and individual behavior to promote improvements in health.

Our Health Policy program has two degree options and the master's degree has three tracks. All coursework is 100% online and uses an accelerated semester format specifically designed for working professionals. This enables students to focus on building one set of skills at a time, but still graduate at the same pace as traditional graduate degree programs.

Graduate Certificate

The Graduate Certificate focuses on the foundations of policy-driven solutions to population health improvement. This option contains five online courses, and can be completed in one year

Program Outcomes

Graduates of our Health Policy program are able to:

Graduate Certificate

- Identify the inter-relationship among key stakeholders in U.S. health and health care, including health care delivery systems, public health, financing systems, advocacy organizations, and the political system, with a focus on policy-making bodies.

- Examine the influence of social, economic, behavioral and political factors on health outcomes.
- Explore the general theoretical principles of economics and their application in the healthcare sector.
- Understand the legal, legislative, and regulatory processes that influence health policy development, implementation, and financing.
- Understand the role of information systems and data analysis in the policy-making process.

Curriculum:1 Year

| Code | Title | Credits |
|-----------------------------|--------------------------------|-----------|
| Graduate Certificate | | |
| HPL 550 | Comparative Health Systems | 3 |
| POP 500 | Essentials of PopulationHealth | 3 |
| HPL 504 | Health Law & Regulatory Issues | 3 |
| HPL 505 | Legis, Exec, & Reg Processes | 3 |
| HPL 506 | HealthPolicy:Analysis&Advocacy | 3 |
| Total Credits | | 15 |

Health Policy (MS)

Contacts

Program Director: Willie (Billy) H. Oglesby, PhD, MBA, MSPH, FACHE

Email: Billy.Oglesby@Jefferson.edu

215-955-6648

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/population-health/degrees-programs/health-policy.html>)

Program Description

Health Policy explores the advancement and implementation of health law, regulations, or voluntary practices that influence systems development, organizational change, and individual behavior to promote improvements in health.

Our Health Policy program has two degree options and the master's degree has three tracks. All coursework is 100% online and uses an accelerated semester format specifically designed for working professionals. This enables students to focus on building one set of skills at a time, but still graduate at the same pace as traditional graduate degree programs.

Master's Degree

The Master of Science (MS) degree builds upon the foundational concepts presented in the Graduate Certificate, and prepares graduates to be health policy leaders who possess advanced analytic and advocacy skills for problem identification and actionable policy solutions and implementation.

Our program offers options for students to focus on health policy principles in the U.S. or in different environments around the world.

U.S. Health Policy Track

Students planning to practice in the United States will learn the unique landscape of health policy decision-making in the U.S., and be able to

develop, analyze, and advocate for comprehensive policy solutions that can address population health problems.

Global Health Policy Track

- This program is not accepting new students due to Global Pandemic

Students wishing to practice outside the United States will learn how health and healthcare services are organized, financed, and delivered in other countries, and will develop advanced analytical skills needed to drive policy-oriented solutions to population health problems around the world.

MD/MD/MS in Health Policy with Concentration in International Health & Medicine (Cattolica/SKMC Program)

This program is for students in the Cattolica MD program completing the SKMC MD and the MS in Health Policy, concentrating in International Health & Medicine. There is a pathway to complete the MS if a student completes only the Cattolica MD, and an option to earn an APC for those who do not complete either MD

Program Outcomes

Graduates of our Health Policy program are able to:

Graduate Certificate

- Identify the inter-relationship among key stakeholders in U.S. health and health care, including health care delivery systems, public health, financing systems, advocacy organizations, and the political system, with a focus on policy-making bodies.
- Examine the influence of social, economic, behavioral and political factors on health outcomes.
- Explore the general theoretical principles of economics and their application in the healthcare sector.
- Understand the legal, legislative, and regulatory processes that influence health policy development, implementation, and financing.
- Understand the role of information systems and data analysis in the policy-making process.

Master's Degree (Above Plus)

- Design, conduct, and evaluate health policy briefs, statements, analyses, and research.
- Apply data driven analytical skills to identify problems, model solutions, and predict outcomes.
- Develop system-wide approaches that consider market forces and multiple stakeholder positions in the development of actionable policy solutions.
- Develop competencies in multi-sector collaboration.
- Explore approaches to developing and financing policies to address the social determinants of health.
- Select and integrate information systems and technology to support decision-making and workflow within and across settings and sectors.
- Learn effective approaches to communication and dissemination of information and data.

- Apply advanced management and leadership skills to develop policies that manage costs of health care and that improve access, quality and safety.

U.S Health Policy Track

Curriculum: 2 Years

| Code | Title | Credits |
|---|--------------------------------|-----------|
| Master of Science | | |
| Graduate Certificate courses plus: | | |
| HPL 500 | US Healthcare Org & Delivery | 3 |
| HPL 511 | PolAppr to Addr SocDet of Hlth | 3 |
| HPL 512 | Medicare and Medicaid | 3 |
| HPL 513 | Eff Commun & Dissemin of Data | 3 |
| HPL 520 | Fund of Pract-Based Statistics | 3 |
| HPL 650 | Capstone | 3 |
| General Elective (Program Director approval needed) | | 3 |
| Total Credits | | 21 |

Global Health Policy Track

- Not accepting new students due to global pandemic

Curriculum: 2 Years

| Code | Title | Credits |
|---|--------------------------------|-----------|
| Master of Science | | |
| Graduate Certificate courses plus: | | |
| HPL 513 | Eff Commun & Dissemin of Data | 3 |
| HPL 515 | Refugee & Migrant Health | 3 |
| HPL 516 | Del Hlth Serv in Res-Ltd Cntrs | 3 |
| HPL 520 | Fund of Pract-Based Statistics | 3 |
| HPL 650 | Capstone | 3 |
| Global Health Elective (Program Director approval needed) | | 3 |
| Total Credits | | 18 |

International Health & Medicine (Cattolica/SKMC)

| Code | Title | Credits |
|------------------|--------------------------------------|---------|
| HPL 500 | US Healthcare Org & Delivery ((2)) | 3 |
| HPL 513 | Eff Commun & Dissemin of Data ((2)) | 3 |
| HPL 516 | Del Hlth Serv in Res-Ltd Cntrs ((2)) | 3 |
| General Elective | | 3 |
| General Elective | | 3 |
| HPL 650 | Capstone | 3 |

1. Students in this program who do not complete the SKMC MD, but successfully complete the Cattolica MS, along with the listed JCPH courses, will earn an MD/MS
2. Students in this program who do not complete the Cattolica MD or SKMC MD, can opt for an APC (Advanced Practice Certificate) in International Health & Medicine by completing these four courses.

Healthcare Quality & Safety (Advanced Practice Certificate)

Contacts

Program Director: Mary Reich Cooper, MD, JD

Email: Mary.R.Cooper@jefferson.edu

215-955-3888

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/population-health/degrees-programs/healthcare-quality-safety.html>)

Program Description

Healthcare Quality and Safety (HQS) is the study and prevention of adverse events, suboptimal care, ineffective treatments, inefficient processes and unnecessary clinical variation in health systems.

Advanced Practice Certificate

The Advanced Practice Certificates focus on building knowledge and skills in healthcare quality and safety or health system science. The primary audiences include: health professions students, medical residents and fellows, clinical faculty, and healthcare professionals interested in moving into administrative roles. Students have the choice of earning the APC in:

- Healthcare Quality & Safety
- Healthcare Quality & Safety Education
- Health Systems Science
- Health Systems Science Education
- Quality Improvement and Patient Safety Leadership

Healthcare Quality & Safety

Curriculum: 9 Credits

| Code | Title | Credits |
|--------------------------------------|--------------------------------|----------|
| Advanced Practice Certificate | | |
| OPX 520 | Change Management | 3 |
| HQS 509 | Appl Princ of Healthcare Qulty | 3 |
| HQS 515 | Appl Princ of Patient Safety | 3 |
| Total Credits | | 9 |

Healthcare Quality & Safety Education

Curriculum: 9 Credits

| Code | Title | Credits |
|--------------------------------------|--------------------------------|----------|
| Advanced Practice Certificate | | |
| HQS 509 | Appl Princ of Healthcare Qulty | 3 |
| HQS 515 | Appl Princ of Patient Safety | 3 |
| HQS 516 | Teaching Quality & Safety | 3 |
| Total Credits | | 9 |

Health Systems Science

Curriculum: 9 Credits

| Code | Title | Credits |
|---|------------------------------|----------|
| Advanced Practice Certificate | | |
| HPL 500 | US Healthcare Org & Delivery | 3 |
| General Elective (PD approval required) | | 3 |
| OPX 520 | Change Management | 3 |
| Total Credits | | 9 |

Health Systems Science Education

Curriculum: 9 Credits

| Code | Title | Credits |
|---|-------------------------------|----------|
| Advanced Practice Certificate | | |
| OPX 520 | Change Management | 3 |
| HQS 517 | Teaching Hlth Systems Science | 3 |
| General Elective (PD approval required) | | 3 |
| Total Credits | | 9 |

Quality Improvement and Patient Safety (QIPS) Leadership

Curriculum: 9 Credits

| Code | Title | Credits |
|--------------------------------------|--------------------------------|----------|
| Advanced Practice Certificate | | |
| OPX 520 | Change Management | 3 |
| HQS 509 | Appl Princ of Healthcare Qulty | 3 |
| HQS 515 | Appl Princ of Patient Safety | 3 |
| Total Credits | | 9 |

Healthcare Quality & Safety (Graduate Certificate)

Contacts

Program Director: Mary Reich Cooper, MD, JD

Email: Mary.R.Cooper@jefferson.edu

215-955-3888

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/population-health/degrees-programs/healthcare-quality-safety.html>)

Program Description

Healthcare Quality and Safety (HQS) is the study and prevention of adverse events, suboptimal care, ineffective treatments, inefficient processes and unnecessary clinical variation in health systems.

Graduate Certificate

The Graduate Certificate focuses on the foundations of HQS. This option contains five online courses and can be completed in one year.

Program Outcomes

The HQS program prepares graduates to lead the transition of healthcare delivery towards high-value care by preparing them to:

Graduate Certificate

- Apply management and leadership skills to develop policies related to measurement and improvement of HQS
- Integrate change management theory into project management program design to improve healthcare quality and patient safety
- Distinguish the various factors that influence risk in health care and discuss the legal principles and regulatory mechanisms that relate to it
- Apply the foundational concepts of quality and safety measurement, improvement and analysis within the framework of collaborative team dynamics and change management

Graduate Certificate

Curriculum:1 (Science Track)

| Code | Title | Credits |
|---|--------------------------------|-----------|
| HPL 500 | US Healthcare Org & Delivery | 3 |
| HQS 500 | Intro Healthcare Qual & Safety | 3 |
| HQS 509 | Appl Princ of Healthcare Qulty | 3 |
| HQS 515 | Appl Princ of Patient Safety | 3 |
| General Elective (PD approval required) | | 3 |
| Total Credits | | 15 |

Graduate Certificate (International Track)

Curriculum:1 Year¹

| Code | Title | Credits |
|---|--------------------------------|-----------|
| HPL 550 | Comparative Health Systems | 3 |
| HQS 502 | Intro to International HQS | 3 |
| HQS 509 | Appl Princ of Healthcare Qulty | 3 |
| HQS 515 | Appl Princ of Patient Safety | 3 |
| General Elective (Program Director approval needed) | | 3 |
| Total Credits | | 15 |

- ¹
- Students enrolled in the international track of Healthcare Quality and Safety, and ISQua Fellows, will take HPL 550 Comparative Health Systems in place of HPL 500 US Healthcare Org & Delivery
 - Waived for ISQua Fellows.
 - Waived for members of the National Association for Healthcare Quality (NAHQ) who hold the Certified Professional in Healthcare Quality (CPHQ) credential.
 - Waived for members of the Society of Hospital Medicine (SHM) who have completed qualifying courses in the SHM Leadership Academy.
 - Members of the American Association for Physician Leadership (AAPL) who have completed the master's pre-requisites, or graduates of an accredited MBA/MHA program apply to the Master of Science in Healthcare Quality and Safety Management program and are able to waive HPL 500 US Healthcare Org & Delivery & the

elective. Please contact Program Director Dr. Mary Reich Cooper for more information. Not applicable to Certificate.

Healthcare Quality & Safety (MS)

Contacts

Program Director: Mary Reich Cooper, MD, JD

Email: Mary.R.Cooper@jefferson.edu
215-955-3888

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/population-health/degrees-programs/healthcare-quality-safety.html>)

Program Description

Healthcare Quality and Safety (HQS) is the study and prevention of adverse events, suboptimal care, ineffective treatments, inefficient processes and unnecessary clinical variation in health systems.

Master's Degree

The Master of Science (MS) builds upon the foundation concepts presented in the Graduate Certificate and focuses on the advanced application of HQS concepts necessary for the analysis, management, and improvement of HQS and the systems that deliver healthcare services. This option contains 10 online courses and a capstone project, which is specifically designed to enhance the student's career trajectory. This option can be completed in two years.

Science Track

Students wishing to practice within the United States will learn how to apply HQS concepts to the organization, delivery and financing of healthcare services specific to the unique aspects of the U.S. healthcare system.

International Track

Students wishing to practice outside the U.S. will learn to apply HQS concepts to other healthcare environments, such as socialized and nationalized healthcare models and resource constrained healthcare systems with diverse regulatory requirements.

Management Track

Students with an MBA, MHA, or qualifying education from our program partners will combine their prior management training with HQS program concepts to lead quality improvement and patient safety in large, complex organizations

Advanced Practice Certificate

The Advanced Practice Certificates focus on building knowledge and skills in healthcare quality and safety or health system science. The primary audiences include: health professions students, medical residents and fellows, clinical faculty, and healthcare professionals interested in moving into administrative roles. Students have the choice of earning the APC in:

- Healthcare Quality & Safety
- Healthcare Quality & Safety Education

- Health Systems Science
- Health Systems Science Education

Students may earn the APC in either:

- Healthcare Quality & Safety
- Health Quality & Safety (QIPS track)

Program Outcomes

The HQS program prepares graduates to lead the transition of healthcare delivery towards high-value care by preparing them to:

Graduate Certificate

- Apply management and leadership skills to develop policies related to measurement and improvement of HQS
- Integrate change management theory into project management program design to improve healthcare quality and patient safety
- Distinguish the various factors that influence risk in health care and discuss the legal principles and regulatory mechanisms that relate to it
- Apply the foundational concepts of quality and safety measurement, improvement and analysis within the framework of collaborative team dynamics and change management

Master's Degree (Above Plus)

- Produce evidence to support healthcare policy development and change
- Integrate quality, safety, and transformation/change management tools to promote patient safety
- Design and implement performance improvement strategies at a system level
- Assimilate interprofessional collaboration into an organizational strategic plan for compliance with internal and external influences on quality and safety
- Evaluate effectiveness of various performance improvement interventions and outcomes
- Develop systematic approaches to drive broad-impacting improvements in clinical outcomes across the healthcare continuum

Curriculum: 2 Years ¹

| Code | Title | Credits |
|--|--------------------------------|---------|
| Master of Science (Science Track) | | |
| HPL 500 | US Healthcare Org & Delivery | 3 |
| HQS 500 | Intro Healthcare Qual & Safety | 3 |
| HQS 509 | Appl Princ of Healthcare Qulty | 3 |
| HQS 515 | Appl Princ of Patient Safety | 3 |
| OPX 520 | Change Management | 3 |
| HPL 520 | Fund of Pract-Based Statistics | 3 |
| HQS 512 | Business Case for Quality | 3 |
| HQS 505 | Adv Tools & Methods for HQS | 3 |
| HQS 507 | Adv Appl of HQS in Clin Set | 3 |
| Elective (Program Director Approval) | | |
| HQS 650 | Capstone | 1.5,3 |

| Code | Title | Credits |
|---|--------------------------------|----------------|
| Master of Science (Management Track) | | |
| HPL 500 | US Healthcare Org & Delivery | 3 |
| HQS 500 | Intro Healthcare Qual & Safety | 3 |
| HQS 515 | Appl Princ of Patient Safety | 3 |
| OPX 520 | Change Management | 3 |
| HPL 520 | Fund of Pract-Based Statistics | 3 |
| HQS 512 | Business Case for Quality | 3 |
| HQS 505 | Adv Tools & Methods for HQS | 3 |
| HQS 507 | Adv Appl of HQS in Clin Set | 3 |
| Elective (Program Director Approval) | | |
| HQS 650 | Capstone | 1.5,3 |
| Total Credits | | 25.5-27 |

| Code | Title | Credits |
|---|--------------------------------|---------|
| Masters of Science (International Track) | | |
| HPL 550 | Comparative Health Systems | 3 |
| HQS 502 | Intro to International HQS | 3 |
| HQS 509 | Appl Princ of Healthcare Qulty | 3 |
| HQS 515 | Appl Princ of Patient Safety | 3 |
| OPX 520 | Change Management | 3 |
| HPL 520 | Fund of Pract-Based Statistics | 3 |
| HQS 512 | Business Case for Quality | 3 |
| HQS 505 | Adv Tools & Methods for HQS | 3 |
| HQS 507 | Adv Appl of HQS in Clin Set | 3 |
| Elective (Program Director Approval) | | |
| HQS 650 | Capstone | 1.5,3 |

| Code | Title | Credits |
|------------------------------------|--------------------------------|---------|
| Additional Elective Options | | |
| HQS 504 | High Reliability | 3 |
| HQS 508 | Quality in Post-Acute Care Set | 3 |
| OPX 540 | Baldrige | 3 |
| OPX 550 | Fundamentals of 6 Sigma DMAIC | 3 |

Footnotes:

1. Waived for members of the National Association for Healthcare Quality (NAHQ) who hold the Certified Professional in Healthcare Quality (CPHQ) credential.
2. Waived for members of the Society of Hospital Medicine (SHM) who have completed qualifying courses in the SHM Leadership Academy (Master's only).

Waived for those who have completed the High Reliability Academy.

3. Waived for ISQua Fellows (after completion of modules).
4. Waived for members of the American Association for Physician Leadership (AAPL) who have completed the master's pre-requisites, or graduates of an accredited MBA/MHA program.

There is a maximum number of credits that can be waived or substituted. Students must claim applicable waivers at time of admission. See Student Handbook for more details.

*All Masters' tracks culminate in a Capstone which incorporates knowledge and skills gained through the master's program education. The Capstone should advance knowledge which can be applied to the student's discipline and/or organization.

Law (JD) & Public Health (MPH) Contacts

Program Director: Rosemary (Rosie) Frasso, PhD, MSc, CPH
Email: Rosemary.Frasso@jefferson.edu
215-503-8901

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/population-health/degrees-programs/public-health/Pathways/dual-degrees/JDMPH.html>)

Not accepting new students into this program

Program Description

The JD/MPH dual degree option is open to students enrolled at Widener University Delaware Law School's Family Health Law & Policy Institute and in JCPH's MPH program.

The JD/MPH supports individuals seeking to enhance careers in health law practice, advocacy and policy.

Admission to the JD and MPH programs is determined independently. Students must meet the admissions requirements for each school.

Law students complete two years of their legal education before beginning the MPH program. JCPH MPH students generally apply for law school after earning their degree.

For more information, contact the JCPH Admissions & Recruitment Manager at (215) 503-5305 or Admissions at The Delaware Law School at (302) 477-2703.

Curriculum: 36 Credits

JD/MPH complete 36 credits or 12 courses of MPH coursework. Additionally, students work closely with faculty to design and complete an independent research project on a topic of their choice.

| Code | Title | Credits |
|---|--------------------------------|---------|
| JD/MPH Public Health Practice Generalist | | |
| PBH 500 | Foundations of US HC System | 3 |
| PBH 501 | Foundations of Public Health | 3 |
| PBH 502 | Society,Behavior&Environment | 3 |
| PBH 504 | Fundamentals of Stat for Rsrch | 3 |
| or PBH 505 | Fund of Stats for Practice | |
| PBH 506 | Fundamentals of Epidemiology | 3 |
| PBH 509 | Foundation of Policy&Advocacy | 3 |
| PBH 510 | Health Research Methods | 3 |
| PBH 520 | Program Planning & Evaluation | 3 |
| PBH 520 | Program Planning & Evaluation | 3 |
| General Electives | | 9 |
| PBH 613 | LPHT Capstone - ILE 1 (Part 1) | 3 |
| PBH 614 | LPHT Capstone - ILE 2 (Part 2) | 0 |
| PBH 651 | Clerkship Applied Practice Exp | 0 |

| Code | Title | Credits |
|----------------------|-------|-----------|
| Transferred credits | | 9 |
| Total Credits | | 48 |

Medicine (MD) & Public Health (MPH) & (DO/MPH) Contacts

Program Director: Rosemary (Rosie) Frasso, PhD, MSc, CPH
Email: Rosemary.Frasso@jefferson.edu
215-503-8901

Program Director: Steven K. Herrine, MD
Email: Steven.Herrine@jefferson.edu
215-955-8900

Campus: Center City
Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/population-health/degrees-programs/public-health/pathways/dual-degrees/MDMPH.html>)

Program Description

The MD/MPH and DO/MPH are designed to increase the number of healthcare professionals who have advanced training in public health, with the goal of promoting wellness, assuring quality, and addressing the social determinants of health in the healthcare setting and in the community.

Medical students from across the U.S. have the opportunity to pursue an accelerated MPH by taking one year out of medical school. This Time Out Program provides training in leadership, epidemiology, biostatistics, research, health behavior, healthcare delivery, healthcare quality and safety, policy, advocacy, wellness, and prevention. Jefferson supports dual medical students by providing a host of structured activities to augment classroom learning. These activities focus on the intersection of public health and health care and include a lecture series and an enhanced field experience.

Curriculum: 33 Credits

- Dual degree medical school students complete 33 credits (11 courses) of MPH coursework. Additionally, students work closely with faculty to design and complete an independent research project on a topic of their choice.

| Code | Title | Credits |
|----------------------|---|-----------|
| PBH 500 | Foundations of US HC System | 3 |
| PBH 502 | Society,Behavior&Environment | 3 |
| PBH 504 | Fundamentals of Stat for Rsrch | 3 |
| PBH 506 | Fundamentals of Epidemiology | 3 |
| or PBH 606 | Advanced Epidemiology | |
| PBH 509 | Foundation of Policy&Advocacy | 3 |
| PBH 510 | Health Research Methods | 3 |
| PBH 660 | Clinical Public Health | 0 |
| PBH 651 | Clerkship Applied Practice Exp (C-APE) | 0 |
| PBH 613 & PBH 614 | LPHT Capstone - ILE 1 and LPHT Capstone - ILE 2 (C-ILE) | 3 |
| General Electives | | 12 |
| Total Credits | | 33 |

Nursing (PhD) & Public Health (MPH)

Contacts

Program Director: Rosemary (Rosie) Frasso, PhD, MSc, CPH

Program Director: Bobbie Posmontier, PhD, CNM, PMHNP-BC, FAAN

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/nursing/degrees-programs/phd-in-nursing-mph-dual-degree.html>)

Program Description

The 65-credit Thomas Jefferson University PhD in Nursing/MPH dual degree program provides a novel approach preparing nurse scientists at the highest level of education to generate new scientific knowledge, address healthcare and public health issues, and educate the next generation of nurses. The program is embedded in an educational framework that promotes interdisciplinary collaboration and reimagines education and discovery by encouraging collaboration among students during the formative stages of PhD education.

The dual degree program will provide advanced training in public health, with the goal of promoting wellness, assuring quality and addressing the social determinants of health in the healthcare setting and in the community.

Curriculum: 4 Years; 65 Credits

| Course | Title | Credits |
|------------------------|--------------------------------|-----------|
| First Year | | |
| Fall | | |
| NU 800 | Philosophy of Sci in Nursing | 3 |
| NU 605 | Role Of The Adv Prac Nur | 3 |
| NU 802 | Foundations/Scientific Writing | 3 |
| Credits | | 9 |
| Spring | | |
| NU 801 | Theoretical Approaches to Res | 3 |
| NU 810 | Quantitative Methods | 3 |
| NU 820 | Course NU 820 Not Found | 3 |
| GC 640 | Research Ethics | 1 |
| Credits | | 10 |
| Summer | | |
| NU 678 | Academic Nursing Seminar I | 3 |
| Credits | | 3 |
| Second Year | | |
| Fall | | |
| PBH 512 | Qualitative Research Methods | 3 |
| NU 821 | Course NU 821 Not Found | 3 |
| PHS 710 | Adv Health Behav Method & Meas | 3 |
| Qualifying Examination | | — |
| Credits | | 9 |
| Spring | | |
| NU 811 | Course NU 811 Not Found | 3 |
| NU 812 | Course NU 812 Not Found | 3 |
| PHS 650 | Eval&Outcomes Research&Design | 3 |
| Credits | | 9 |
| Summer | | |
| NU 830 | Course NU 830 Not Found | 1 |
| General Elective | | 3 |
| Credits | | 4 |

| Course | Title | Credits |
|---|--------------------------------|-----------|
| Third Year | | |
| Fall | | |
| NU 831 | Course NU 831 Not Found | 3 |
| General Electives | | 6 |
| Defend Dissertation Proposal | | — |
| Credits | | 9 |
| Spring | | |
| NU 841 | Course NU 841 Not Found | 1 |
| Credits | | 1 |
| Fourth Year | | |
| Fall | | |
| Three MPH courses are needed, in addition to the PhD curriculum. Students can take these as electives in the PhD program or as additional coursework: | | |
| POP 500 | Essentials of PopulationHealth | 3 |
| PBH 509 | Foundation of Policy&Advocacy | 3 |
| PBH 520 | Program Planning & Evaluation | 3 |
| Credits | | 9 |
| Total Credits | | 63 |

Operational Excellence (Advanced-Practice Certificate)

Contacts

Program Director: Mary Reich Cooper, MD, JD

Email: Mary.R.Cooper@jefferson.edu

215-955-3888

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/population-health/degrees-programs/operational-excellence.html>)

Program Description

Operational Excellence (OpX) is the academic and professional field focused on developing and implementing evidence-based performance improvement methodologies needed to promote value and efficiency in healthcare. OpX professionals lead healthcare transformation by focusing on eliminating waste and improving system performance.

Advanced Practice Certificate (APC)

The Advanced Practice Certificates focus on building knowledge and skills in operational excellence. The primary audiences include: health professions students, medical residents and fellows, clinical faculty, and healthcare professionals interested in moving into administrative roles. Students have the choice of earning the APC in:

- Operational Excellence
- Operational Excellence Education

Operational Excellence

Curriculum: 1 Year

| Code | Title | Credits |
|--------------------------------------|--------------------------------|---------|
| Advanced Practice Certificate | | |
| HQS 500 | Intro Healthcare Qual & Safety | 3 |
| OPX 520 | Change Management | 3 |

| Code | Title | Credits |
|----------------------|-------------------------------|----------|
| OPX 532 | Project Management Essentials | 3 |
| Total Credits | | 9 |

Operational Excellence Education Curriculum: 1 Year

| Code | Title | Credits |
|--------------------------------------|--------------------------------|----------|
| Advanced Practice Certificate | | |
| OPX 520 | Change Management | 3 |
| OPX 532 | Project Management Essentials | 3 |
| OPX 516 | Teaching Operational Excellenc | 3 |
| Total Credits | | 9 |

Operational Excellence (Graduate Certificate)

Contacts

Program Director: Mary Reich Cooper, MD, JD
Email: Mary.R.Cooper@jefferson.edu
 215-955-3888
Campus: Center City
 Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/population-health/degrees-programs/operational-excellence.html>)

Program Description

Operational Excellence (OpX) is the academic and professional field focused on developing and implementing evidence-based performance improvement methodologies needed to promote value and efficiency in healthcare. OpX professionals lead healthcare transformation by focusing on eliminating waste and improving system performance.

Graduate Certificate

The Graduate Certificate focuses on the foundations of OpX. This option contains five online courses and can be completed in one year.

Program Outcomes

The OpX program prepares leaders to be effective agents of change within their organizations by equipping them with the knowledge and skills to facilitate and lead system and process-level improvements. Graduates will be able to:

Graduate Certificate

- Apply the foundational concepts of quality and safety measurement, improvement, and analysis
- Utilize project management tools and framework to design and implement improvement projects
- Distinguish the various evaluation methods used to externally and internally assess a healthcare organization’s performance
- Identify and evaluate appropriate healthcare situations to utilize operational excellence tools

Curriculum: 1 Year

| Code | Title | Credits |
|-----------------------------|--------------------------------|-----------|
| Graduate Certificate | | |
| HPL 500 | US Healthcare Org & Delivery | 3 |
| HQS 500 | Intro Healthcare Qual & Safety | 3 |
| OPX 520 | Change Management | 3 |
| OPX 532 | Project Management Essentials | 3 |
| OPX 525 | Executing Lean Improvements | 3 |
| Total Credits | | 15 |

Operational Excellence (MS)

Contacts

Program Director: Mary Reich Cooper, MD, JD
Email: Mary.R.Cooper@jefferson.edu
 215-955-3888
Campus: Center City
 Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/population-health/degrees-programs/operational-excellence.html>)

Program Description

Operational Excellence (OpX) is the academic and professional field focused on developing and implementing evidence-based performance improvement methodologies needed to promote value and efficiency in healthcare. OpX professionals lead healthcare transformation by focusing on eliminating waste and improving system performance.

Master’s Degree

The Masters of Science (MS) builds upon the foundational concepts presented in the Graduate Certificate and focuses on the advanced application of OpX concepts necessary for the analysis, management, and improvement of processes and the systems that deliver healthcare. This option contains 10 online courses and a capstone project, which is specifically designed to enhance the student’s career trajectory. This option can be completed in two years.

Program Outcomes

The OpX program prepares leaders to be effective agents of change within their organizations by equipping them with the knowledge and skills to facilitate and lead system and process-level improvements. Graduates will be able to:

Graduate Certificate

- Apply the foundational concepts of quality and safety measurement, improvement, and analysis
- Utilize project management tools and framework to design and implement improvement projects
- Distinguish the various evaluation methods used to externally and internally assess a healthcare organization’s performance
- Identify and evaluate appropriate healthcare situations to utilize operational excellence tools

Master’s Degree (Above Plus)

- Evaluate the effectiveness of various performance improvement evaluation approaches as well as improvement interventions

- Integrate quality, safety, and transformation/change management tools to promote quality, safety, and process efficiency
- Design and implement operational excellence tools and strategies at a system level
- Develop systematic approaches to drive broad-impacting improvements across a healthcare organization

Curriculum: 2 Years

| Code | Title | Credits |
|--|--------------------------------|-----------|
| Master of Science | | |
| Graduate Certificate courses plus: | | |
| HQS 512 | Business Case for Quality | 3 |
| HPL 520 | Fund of Pract-Based Statistics | 3 |
| OPX 535 | Strategic Execution | 3 |
| OPX 531 | Evaluating Healthcare Orgs | 3 |
| General Elective (Program Director approval) | | 3 |
| OPX 650 | Capstone | 3 |
| Total Credits | | 18 |

Pharmaceutical Science (PharmD) & Public Health (MPH)

Contacts

Program Director: Rosemary (Rosie) Frasso, PhD, MSc, CPH
Email: Rosemary.Frasso@jefferson.edu
 215-503-8901

Program Director: Emily R. Hajjar, PharmD, MS, BCPS, BCACP, BCGP
Email: Emily.Hajjar@jefferson.edu
 215-503-8522

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/population-health/degrees-programs/public-health/pathways/dual-degrees/PharmDMPH.html>)

Program Description

The PharmD/MPH recognizes the growing synergy between pharmacy services and public health practices and reflects the growing interest among professionals to seek advanced graduate training in research methods, leadership, and population health.

Curriculum

- Students may complete the degree on a full-time or part-time basis. PharmD/MPH students complete 33 credits (11 courses) of MPH coursework. Additionally, students work closely with faculty to design and complete an independent Capstone project on a topic of their choice.

| Code | Title | Credits |
|---|--------------------------------|---------|
| PharmD/MPH Public Health Practice Generalist | | |
| PBH 501 | Foundations of Public Health | 3 |
| or POP 500 | Essentials of PopulationHealth | |
| PBH 502 | Society,Behavior&Environment | 3 |
| PBH 504 | Fundamentals of Stat for Rsrch | 3 |
| or POP 505 | Course POP 505 Not Found | |
| PBH 506 | Fundamentals of Epidemiology | 3 |

| Code | Title | Credits |
|--|--------------------------------|-----------|
| PBH 509 | Foundation of Policy&Advocacy | 3 |
| PBH 520 | Program Planning & Evaluation | 3 |
| PBH 613 | LPHT Capstone - ILE 1 (Part 1) | 3 |
| PBH 614 | LPHT Capstone - ILE 2 (Part 2) | 0 |
| PBH 651 | Clerkship Applied Practice Exp | 0 |
| Transferred credits & Program Requirements | | 12 |
| Total Credits | | 33 |

Population Health (Advanced - Practice Certificate)

Contacts

Program Director: Mitchell A. Kaminski, MD, MBA

Email: Mitchell.Kaminski@jefferson.edu
 215-955-9137

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/population-health/degrees-programs/population-health.html>)

Program Description

Population Health (PopH) is an academic and professional field that draws upon diverse disciplines to create a new paradigm for health improvement that engages all key stakeholders that impact the delivery of health services. Health systems in the U.S. and around the world are shifting from volume to value.

Advanced Practice Certificate (APC)

The Advanced Practice Certificates focus on building knowledge and skills in population health. The primary audiences include: health professions students, medical residents and fellows, clinical faculty, and healthcare professionals interested in moving into administrative roles. Students have the choice of earning the APC in:

- Population Health
- Population Health-PHIPS Track
- Population Health Education
- Population Health for Employers

Population Health

Curriculum: 9 Credits

| Code | Title | Credits |
|--------------------------------------|--------------------------------|----------|
| Advanced Practice Certificate | | |
| HPL 500 | US Healthcare Org & Delivery | 3 |
| POP 500 | Essentials of PopulationHealth | 3 |
| POP 510 | Health Econ, Risk, & Finance | 3 |
| Total Credits | | 9 |

Population Health Education

Curriculum: 9 Credits

| Code | Title | Credits |
|--------------------------------------|--------------------------------|----------|
| Advanced Practice Certificate | | |
| POP 500 | Essentials of PopulationHealth | 3 |
| POP 510 | Health Econ, Risk, & Finance | 3 |
| POP 516 | Teaching Population Health | 3 |
| Total Credits | | 9 |

Population Health (PHIPS Track)

| Code | Title | Credits |
|---|--------------------------------|---------|
| Advanced Practice Certificate | | |
| HPL 500 | US Healthcare Org & Delivery | 3 |
| POP 500 | Essentials of PopulationHealth | 3 |
| POP 510 | Health Econ, Risk, & Finance | 3 |
| Monthly in-person sessions & mentored project | | |

Population Health for Employers

| Code | Title | Credits |
|-------------------------------|--------------------------------|---------|
| Advanced Practice Certificate | | |
| POP 500 | Essentials of PopulationHealth | 3 |
| POP 541 | Pop Health for Employers | 3 |
| Elective (PD Approval) | | 3 |

Population Health (DHSc)

Contacts

Program Director: Alexis Skoufalos, EdD

Email: Alexis.Skoufalos@jefferson.edu

215-955-2822

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/population-health/degrees-programs/dhsc-in-population-health.html>)

Program Description

Our DHSc in Population Health is designed for working professionals who are determined to transform the healthcare system. This cohort-based program is small, interactive and focused on creating a community of practice among the participants as they develop their knowledge and skills.

This 3-year cohort-based program combines the best of online content delivery, while also providing students with intensive mentoring, coaching and soft skills practice in face-to-face sessions with some of the best and brightest minds from across the country.

Students begin in Fall and will complete the program in Summer In of the third year.

Online courses are offered asynchronously using best practices and interactive learning.

Program requirements include two in-person residencies (spring and fall) in each year. They are offered over the course of 4 days (bridging a weekend) on Jefferson's Center City campus in Philadelphia.

The in-person residency programs allow students to receive personalized attention and mentoring from faculty - an ideal opportunity to develop dissertation proposals, receive career coaching and build their professional network of contacts. There are also sessions devoted to career planning, board governance, and opportunities to interact with industry experts.

Curriculum: 51 Credits

| Course | Title | Credits |
|----------------------|--------------------------------|-----------|
| First Year | | |
| Fall | | |
| DHS 750 | Beginning Residency | 1 |
| HPL 512 | Medicare and Medicaid | 3 |
| DHS 700 | Descriptive Research Methods | 3 |
| Credits | | 7 |
| Spring | | |
| DHS 751 | Spring Residency | 1 |
| HPL 550 | Comparative Health Systems | 3 |
| DHS 701 | Pop Health Research Methods | 3 |
| Credits | | 7 |
| Summer | | |
| DHS 702 | Pop Hlth Management Strategies | 3 |
| DHS 703 | Systematic Reviews & Analysis | 3 |
| Credits | | 6 |
| Second Year | | |
| Fall | | |
| DHS 752 | Fall Residency | 1 |
| DHS 704 | Pop Hlth Implementation Sci I | 3 |
| HPL 520 | Fund of Pract-Based Statistics | 3 |
| Credits | | 7 |
| Spring | | |
| DHS 753 | Spring Residency | 1 |
| DHS 705 | Pop Hlth Implementation Sci II | 3 |
| AHE 502 | Statistics I | 3 |
| Credits | | 7 |
| Summer | | |
| OPX 530 | Appl Lead Strat for Eff Change | 3 |
| DHS 706 | Academic & Prof Writing | 3 |
| Credits | | 6 |
| Third Year | | |
| Fall | | |
| DHS 754 | Fall Residency | 1 |
| DHS 800 | Dissertation I | 3 |
| Credits | | 4 |
| Spring | | |
| DHS 801 | Dissertation II | 3 |
| Credits | | 3 |
| Summer | | |
| DHS 755 | Summer Residency | 1 |
| DHS 802 | Dissertation III | 3 |
| Credits | | 4 |
| Total Credits | | 51 |

Population Health (Graduate Certificate)

Contacts

Program Director: Mitchell A. Kaminski, MD, MBA

Email: Mitchell.Kaminski@jefferson.edu

215-955-9137

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/population-health/degrees-programs/population-health.html>)

Program Description

Population Health (PopH) is an academic and professional field that draws upon diverse disciplines to create a new paradigm for health improvement that engages all key stakeholders that impact the delivery of health services. Health systems in the U.S. and around the world are shifting from volume to value.

Graduate Certificate

The Graduate Certificate focuses on the foundations of population health. This option contains five online courses and can be completed in one year. Three certificate tracks are offered which are designed to align with the MS degree tracks described below.

Program Outcomes

Graduates of the Graduate Certificate in Population Health are able to:

- Articulate U.S. Healthcare organization and delivery, and how it impacts strategy and operations for achieving value-based care.
- Define population health, and describe how public health resources can align to address social determinants of health in order to improve health care outcomes.
- Incorporate principles of healthcare quality and safety to improve the care of patients and populations.
- Apply principals of economics, risk, and finance to the development and implementation of health care strategies.
- Describe how policy, medicolegal, and regulatory factors inform and impact health care systems. (Science track)
- Organize and implement clinical programs while understanding the role of analytics and principles of implementation science. (Management track)

Population Health Science

Curriculum: 1 Year

| Code | Title | Credits |
|-----------------------------|--------------------------------|-----------|
| Graduate Certificate | | |
| HPL 500 | US Healthcare Org & Delivery | 3 |
| POP 500 | Essentials of PopulationHealth | 3 |
| HQS 500 | Intro Healthcare Qual & Safety | 3 |
| HPL 504 | Health Law & Regulatory Issues | 3 |
| POP 510 | Health Econ, Risk, & Finance | 3 |
| Total Credits | | 15 |

Population Health Management

Curriculum: 1 Year

| Code | Title | Credits |
|-----------------------------|--------------------------------|---------|
| Graduate Certificate | | |
| POP 500 | Essentials of PopulationHealth | 3 |
| POP 510 | Health Econ, Risk, & Finance | 3 |
| HQS 509 | Appl Princ of Healthcare Qulty | 3 |

| Code | Title | Credits |
|----------------------|--------------------------------|-----------|
| HDS 501 | Health Informatics & Analytics | 3 |
| HDS 538 | Implementation Science | 3 |
| Total Credits | | 15 |

Population Health for Employers

Curriculum: 1 Year

| Code | Title | Credits |
|-----------------------------|--------------------------------|-----------|
| Graduate Certificate | | |
| HPL 500 | US Healthcare Org & Delivery | 3 |
| POP 500 | Essentials of PopulationHealth | 3 |
| POP 510 | Health Econ, Risk, & Finance | 3 |
| HQS 500 | Intro Healthcare Qual & Safety | 3 |
| POP 541 | Pop Health for Employers | 3 |
| Total Credits | | 15 |

Population Health (MS)

Contacts

Program Director: Mitchell A. Kaminski, MD, MBA**Email:** Mitchell.Kaminski@jefferson.edu

215-955-9137

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/population-health/degrees-programs/population-health.html>)

Program Description

Population Health (PopH) is an academic and professional field that draws upon diverse disciplines to create a new paradigm for health improvement that engages all key stakeholders that impact the delivery of health services. Health systems in the U.S. and around the world are shifting from volume to value.

Master's Degree

The Master of Science (MS) degree builds upon the foundational concepts presented in the Graduate Certificate and focuses on the advanced applications of population health science and management. This option contains 10 online courses and a capstone project, which is specifically designed to enhance the student's career trajectory. This option can be completed in two years.

The three track options allow students to focus their studies on the science of population health improvement or the population health management strategies used in healthcare.

Science Track

This track provides critical knowledge and skills to effectively address population health issues across a spectrum of populations. It is a broad education applicable to administrative leadership positions in healthcare delivery organizations, health insurance companies, government, public health agencies, and health-related non-profit organizations. It is also ideal for general education of professionals new to or considering population health endeavors.

Management Track

This track is designed for professionals in healthcare and provides a deeper focus on the clinical application of population health principles both for strategy and management.

Employer Track

This track is designed for professionals in business and healthcare and provides a deeper focus on the application of population health principles for employee populations within organizations.

All tracks teach skills to lead value-based population health-focused enterprise-level change across a variety of healthcare organizations and systems.

Program Outcomes

Graduates of the Graduate Certificate in Population Health are able to:

- Articulate U.S. Healthcare organization and delivery, and how it impacts strategy and operations for achieving value-based care.
- Define population health, and describe how public health resources can align to address social determinants of health in order to improve health care outcomes.
- Incorporate principles of healthcare quality and safety to improve the care of patients and populations.
- Apply principals of economics, risk, and finance to the development and implementation of health care strategies.
- Describe how policy, medicolegal, and regulatory factors inform and impact health care systems. (Science track)
- Organize and implement clinical programs while understanding the role of analytics and principles of implementation science. (Management track)

Graduates of the Master of Science in Population Health Program are able to achieve the above competencies plus:

All Tracks

- Apply quantitative and qualitative analytic skills to develop, implement, and evaluate programs that address population health issues at the institutional, community, regional, and national levels.
- Apply principles of change management to more successfully influence healthcare programs and outcomes.

Science Track

- Assess and interpret healthcare policies, legal precedents, statutes, and regulations.
- Analyze the impact of socio-cultural factors on access to health care and adjust health promotions and interventions accordingly.
- Apply social, behavioral and organizational science to the diagnosis, development and implementation of organizational change
- Participate in structured simulations that demonstrate the breadth of population health

Management Track

- Discuss and design clinical programs and initiatives which demonstrate understanding of social, clinical, and financial factors impacting population health.
- Apply leadership strategies for effective change to clinical operations.

Population Health for Employers Track

- Strategize and execute to maximize workforce health and wellness
- Understand the application of data science to maximize population health program benefits
- Focus on wellness, prevention, and chronic disease management for the workforce
- Prepare for the future by studying new models and how they can benefit employee health care

All three tracks culminate in a capstone project which incorporates knowledge and skills gained through the Master's Program education. The Capstone should advance knowledge which can be applied to the student's discipline and/or organization.

Population Health Science

Curriculum: 2 Years

| Code | Title | Credits |
|---|--------------------------------|-----------|
| Master of Science | | |
| HPL 500 | US Healthcare Org & Delivery | 3 |
| POP 500 | Essentials of PopulationHealth | 3 |
| HQS 500 | Intro Healthcare Qual & Safety | 3 |
| POP 510 | Health Econ, Risk, & Finance | 3 |
| HPL 504 | Health Law & Regulatory Issues | 3 |
| HDS 501 | Health Informatics & Analytics | 3 |
| AHE 509 | Epi & Evidnc Outcomes Research | 3 |
| HPL 506 | HealthPolicy:Analysis&Advocacy | 3 |
| OPX 520 | Change Management | 3 |
| General Elective (Program Director approval needed) | | 3 |
| POP 650 | Capstone | 3 |
| Total Credits | | 33 |

Population Health Management

Curriculum: 2 Years

| Code | Title | Credits |
|---|--------------------------------|-----------|
| Master of Science | | |
| POP 500 | Essentials of PopulationHealth | 3 |
| POP 510 | Health Econ, Risk, & Finance | 3 |
| HDS 501 | Health Informatics & Analytics | 3 |
| OPX 520 | Change Management | 3 |
| HQS 509 | Appl Princ of Healthcare Qulty | 3 |
| HDS 538 | Implementation Science | 3 |
| POP 560 | PopHealth Mgmt Applications | 3 |
| POP 561 | Pop Health Strategy & Mgmt | 3 |
| OPX 530 | Appl Lead Strat for Eff Change | 3 |
| General Elective (Program Director approval needed) | | 3 |
| POP 650 | Capstone | 3 |
| Total Credits | | 33 |

Population for Employers

Curriculum: 2 Years

| Code | Title | Credits |
|--------------------------|------------------------------|---------|
| Master of Science | | |
| HPL 500 | US Healthcare Org & Delivery | 3 |

| Code | Title | Credits |
|---|--------------------------------|-----------|
| POP 500 | Essentials of PopulationHealth | 3 |
| POP 510 | Health Econ, Risk, & Finance | 3 |
| HQS 500 | Intro Healthcare Qual & Safety | 3 |
| POP 541 | Pop Health for Employers | 3 |
| POP 542 | Pop Health Analytics for Emp | 3 |
| POP 543 | Wellness, Prev, & CDM for Emp | 3 |
| POP 544 | New Models & Employee Hlthcare | 3 |
| POP 545 | Pop Health Law for Employers | 3 |
| General Elective (Program Director approval needed) | | 3 |
| POP 650 | Capstone | 3 |
| Total Credits | | 33 |

Population Health Science (PhD)

Contacts

Program Director: Richard W. Hass, PhD

Email: Richard.Hass@jefferson.edu

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/population-health/degrees-programs/population-health-science-phd.html>)

Program Description

Our PhD in Population Health Science prepares leaders to analyze the determinants of health and to develop, implement, and evaluate health interventions, and health policies and systems that improve the health and quality of life of populations.

Program Specializations

Classes are a mix of onsite courses, held at Thomas Jefferson University's Center City campus, and online classes. Onsite courses are offered during the day and evening, accommodating working adults. Online courses are offered asynchronously using best practices and interactive learning, and are taught by faculty with years of experience and recognized expertise.

The PhD in Population Health Science requires completion of a minimum of 62 credits, including competency examination and dissertation. Students specialize in one of five areas:

- Applied Health Economics & Outcomes Research (AHEOR)
- Health Behavior Science
- Health Data Science
- Health Policy
- Healthcare Quality & Safety (HQS)

Program Outcomes

Graduates of the PhD program are able to:

- Demonstrate advanced knowledge and application of population health frameworks and concepts
- Apply knowledge of the structures, performance, quality, policy, and environmental context of health care to the formulation of solutions to, and prevention of, population health problems

- Formulate population health research questions that are informed by relevant theoretical and conceptual models; systematic reviews of the literature; valid, reliable, and generalizable data; and stakeholder needs
- Select appropriate study designs to address specific population health research questions
- Collect, analyze, and/or interpret data obtained either prospectively (by survey, surveillance, qualitative, or mixed methods) or retrospectively through existing public and private sources to identify determinants of health
- Conduct ethical and responsible research in the design, implementation, and dissemination of population health research through implementation of research protocols with standardized procedures
- Apply appropriate design and analytic methods to clarify associations between variables and to identify causal inferences
- Communicate findings and implications of population health science research through multiple modalities to academic, professional, and lay audience

Curriculum

| Code | Title | Credits |
|--|--|---------|
| Pre-Matriculation Requirements¹ | | |
| Basic Biostatistics | | 3 |
| Research Methods | | 3 |
| Core Coursework: Methods | | |
| Select one of the following: | | 12 |
| Specialization: AHEOR | | |
| PHS 605 | Adv Stats Mthds Data Analysis | |
| PHS 615 | Adv Stat/PH:Multi-Lvl Modeling | |
| AHE 509 | Epi & Evidnc Outcomes Research | |
| AHE 510 | Adv Res Meth for Appl Obs Stud | |
| Specializations: Required for Health Behavior Science, Health Policy, HQS, and HDS | | |
| PHS 605 | Adv Stats Mthds Data Analysis | |
| PHS 615 | Adv Stat/PH:Multi-Lvl Modeling | |
| PHS 606 | Course PHS 606 Not Found | |
| | or AHE 509 Epi & Evidnc Outcomes Research | |
| PHS 650 | Eval&Outcomes Research&Design | |
| Core Coursework: Population Health Fundamentals | | |
| HPL 500 | US Healthcare Org & Delivery | 3 |
| POP 500 | Essentials of PopulationHealth | 3 |
| AHE 501 | Economics of Health Insurance | 3 |
| PBH 502 | Society,Behavior&Environment | 3 |
| PHS 602 | Bioethics | 1 |
| PHS 620 | Teaching/Learning Seminar | 3 |
| Integrative & Mentored Research | | |
| PHS 700 | Integrative Research Seminar (1 credit each, four times) | 4 |
| PHS 660 | Mentored Research Experience | 1-3 |
| Specialization Coursework | | |
| Select one of the following specializations: | | 15 |
| Applied Health Economics Outcomes Research (p. 177) | | |
| Health Behavior Science (p. 177) | | |

| Code | Title | Credits |
|---------------------------------------|------------------------------------|--------------|
| | Health Policy (p. 177) | |
| | Healthcare Quality Safety (p. 177) | |
| | Health Data Science (p. 177) | |
| Examination & Dissertation | | |
| PHS 800 | Comprehensive Exam Prep | 1 |
| PHS 801 | Comprehensive Exam | 1 |
| PHS 805 | Dissertation Proposal Seminar | 3 |
| PHS 807 | Dissertation Proposal Defense | 1 |
| PHS 810 | Dissertation Progress | 3 |
| PHS 811 | Final Dissertation Defense | 3 |
| PHS 812 | Dissertation Progress (if needed) | 1 |
| Total Credits | | 67-69 |

¹ Grade of B or above

Specialization: Applied Health Economics & Outcomes Research

| Code | Title | Credits |
|----------------------------------|-----------------------------------|---------|
| Select five of the following: 15 | | |
| AHE 502 | Statistics I | |
| AHE 505 | Statistics II | |
| AHE 504 | Economic Modeling I | |
| AHE 512 | Economic Modeling II | |
| AHE 506 | Subjective Outcomes Health Eval | |
| AHE 507 | Claims-Based AHEOR | |
| AHE 508 | Intl Health Tech Assessment | |
| PHS 650 | Eval & Outcomes Research & Design | |
| HDS 500 | Fundamentals of Data Wrangling | |
| HDS 502 | Advanced Data Analysis | |

Specialization: Health Behavior Science

| Code | Title | Credits |
|---------|---|---------|
| PBH 602 | Adv Soc & Beh Theory & Int ¹ | 3 |
| PBH 512 | Qualitative Research Methods | 3 |
| PBH 515 | Cultural Humility & Competence | 3 |
| PHS 710 | Adv Health Behav Method & Meas | 3 |
| PHS 680 | Adv Anl Top for Health Beh Sci | 3 |

¹ Prerequisite of PBH 502 Society, Behavior & Environment

Specialization: Health Policy

| Code | Title | Credits |
|----------------------------------|------------------------------------|---------|
| Select five of the following: 15 | | |
| HPL 506 | Health Policy: Analysis & Advocacy | |
| HPL 504 | Health Law & Regulatory Issues | |
| HPL 505 | Legis, Exec, & Reg Processes | |
| HPL 511 | Pol Appr to Addr Soc Det of Hlth | |
| HPL 512 | Medicare and Medicaid | |
| HPL 513 | Eff Commun & Dissemin of Data | |
| OPX 520 | Change Management | |

| Code | Title | Credits |
|---------|---|---------|
| | or OPX 530 Appl Lead Strat for Eff Change | |
| HPL 550 | Comparative Health Systems | |

Specialization: Healthcare Quality & Safety

| Code | Title | Credits |
|----------------------------------|--------------------------------|---------|
| Select five of the following: 15 | | |
| HQS 500 | Intro Healthcare Qual & Safety | |
| HQS 509 | Appl Princ of Healthcare Qulty | |
| HQS 512 | Business Case for Quality | |
| HQS 515 | Appl Princ of Patient Safety | |
| HQS 505 | Adv Tools & Methods for HQS | |
| HQS 507 | Adv Appl of HQS in Clin Set | |
| OPX 520 | Change Management | |

Specialization: Health Data Science

| Code | Title | Credits |
|----------------------------------|--------------------------------|---------|
| Select five of the following: 15 | | |
| AHE 502 | Statistics I | |
| AHE 505 | Statistics II | |
| HDS 500 | Fundamentals of Data Wrangling | |
| HDS 502 | Advanced Data Analysis | |
| HDS 532 | Data Visualization | |
| HDS 518 | Data Science I | |
| HDS 519 | Data Science II | |

Public Health (Graduate Certificate)

Contacts

Program Director: Rosemary (Rosie) Frasso, PhD, MSc, CPH
Email: Rosemary.Frasso@jefferson.edu
 215-503-8901

Campus: Center City
 Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/population-health/degrees-programs/public-health.html>)

Program Description

Public Health is an interdisciplinary field of study and practice with three primary goals:

- address pressing and emerging threats to health and well-being;
- prevent illness, disease and injury; and
- promote and protect human health.

In achieving these goals, public health emphasizes social justice, supports human rights and respects the dignity of individuals and the integrity of communities.

Graduate Certificate

Students earning the Graduate Certificate in Public Health (18 credits) will identify 3 core courses and 3 additional courses in consultation with the Program Director. The three additional courses may be core or elective courses, assuming pre-requisites have been met.

Public Health (MPH)

Contacts

Program Director: Rosemary (Rosie) Frasso, PhD, MSc, CPH

Email: Rosemary.Frasso@jefferson.edu

215-503-8901

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/population-health/degrees-programs/public-health.html>)

Program Description

- STEM designated program

Public Health is an interdisciplinary field of study and practice with three primary goals:

- address pressing and emerging threats to health and well-being;
- prevent illness, disease and injury; and
- promote and protect human health.

In achieving these goals, public health emphasizes social justice, supports human rights and respects the dignity of individuals and the integrity of communities.

Master of Public Health

The Master of Public Health is a 45-credit degree. The MPH degree requires the completion of 27 credits of core courses (including a non-crediting bearing clerkship) and 18 credits of concentration and elective courses.

Classes are held onsite at Thomas Jefferson University's Center City Philadelphia campus. They are offered during the day and after 5 pm, accommodating working adults.

Concentration Options

The MPH program offers four engaging concentration options. Each concentration offers elective courses that address specific competencies. Students are encouraged to complete their Clerkship-Applied Practice Experience and Capstone-Integrated Learning Experience on topics related to their concentration. Students in each concentration take 6 elective courses.

Public Health Analytics

Focuses on bolstering students' epidemiological and statistical expertise through advanced coursework giving students the ability to collect, analyze, interpret and visualize data.

Public Health Policy & Advocacy

Gives students the skillset to promote public health policy at the local, state, federal and international levels.

Healthcare Quality & Safety

Focuses on integrating public health knowledge and skills in the clinical space. This concentration is particularly of interest to students currently in or intending to enter the medical field.

PUBLIC HEALTH PRACTICE (GeNERALIST)

Gives students the most freedom to choose electives that appeal to them. Academic advisors will support students in determining which electives support their career goals.

MPH

Curriculum

| Code | Title | Credits |
|--|---|-----------|
| Core Courses All Concentrations | | |
| PBH 501 | Foundations of Public Health | 3 |
| PBH 500 | Foundations of US HC System | 3 |
| PBH 502 | Society, Behavior & Environment | 3 |
| PBH 504 | Fundamentals of Stat for Rsrch | 3 |
| or PBH 505 | Fund of Stats for Practice | |
| PBH 506 | Fundamentals of Epidemiology | 3 |
| PBH 509 | Foundation of Policy & Advocacy | 3 |
| PBH 510 | Health Research Methods | 3 |
| PBH 520 | Program Planning & Evaluation | 3 |
| PBH 651 | Clerkship Applied Practice Exp (C-APE) | 0 |
| Select one of the following: | | 3 |
| PBH 611 & PBH 612 | Capstone - ILE 1 and LEAP Capstone - ILE 2 (C-ILE) | |
| PBH 613 & PBH 614 | LPHT Capstone - ILE 1 and LPHT Capstone - ILE 2 (C-ILE) | |
| Concentrations | | |
| Select one of the following concentrations: | | 18 |
| Public Health Analytics (p. 178) | | |
| Public Health Practice (Generalist) (p. 178) | | |
| Healthcare Quality Safety (p. 178) | | |
| Public Health Policy Advocacy (p. 179) | | |
| Total Credits | | 45 |

Concentration: Public Health Analytics

| Code | Title | Credits |
|-------------------|-------------------------------|---------|
| PBH 512 | Qualitative Research Methods | 3 |
| PBH 605 | AdvStatMethodsforDataAnalysis | 3 |
| PBH 606 | Advanced Epidemiology | 3 |
| PBH 609 | GIS Mapping | 3 |
| General Electives | | 6 |

Concentration: Public Health Practice (Generalist)

| Code | Title | Credits |
|---|-------|---------|
| Six (https://catalog.jefferson.edu/colleges-schools/college-population-health-jcph/genelects/) | | 18 |

Concentration: Healthcare Quality & Safety

| Code | Title | Credits |
|---|--------------------------------|---------|
| HQS 500 | Intro Healthcare Qual & Safety | 3 |
| HQS 509 | Appl Princ of Healthcare Qulty | 3 |
| HQS 515 | Appl Princ of Patient Safety | 3 |
| OPX 532 | Project Management Essentials | 3 |
| Two (https://catalog.jefferson.edu/colleges-schools/college-population-health-jcph/genelects/) | | 6 |

Concentration: Public Health Policy & Advocacy

| Code | Title | Credits |
|-------------------|--------------------------------|---------|
| PBH 507 | Fundamentals of Environ Health | 3 |
| PBH 513 | Public Health Law & Ethics | 3 |
| PBH 518 | Applied Policy & Advocacy | 3 |
| AHE 501 | Economics of Health Insurance | 3 |
| General Electives | | 6 |

Public Health Advanced Standing Pathway

The Advanced Standing pathway is designed to increase the number of healthcare professionals who have advanced training in public health, with the goal of promoting wellness, assuring quality and addressing the social determinants of health in social service, healthcare, government, non-profit, business, research, and community settings.

The Advanced Standing pathway complements the College's existing efforts to train healthcare and other professional to be more effective and to contribute to population and community health. This program provides those with a terminal degree (including MD, DO, PhD, JD, DSW, EdD, DNP, DHSc, DBA) with an opportunity to pursue a Master of Public Health (MPH) degree. The program provides training in leadership, epidemiology, biostatistics, research, health behavior, healthcare delivery, healthcare quality and safety, policy, advocacy, wellness and prevention. Professionals with an MPH degree assume leadership positions in the healthcare setting, in state and local public health departments, non-governmental health organizations, and in the global context and are prepared to conduct research, inform policy, and lead advocacy efforts.

Advanced Standing students complete 33 credits (11 courses) of MPH coursework. Jefferson supports Advanced Standing students by providing a host of structured activities to augment classroom learning. These activities focus on the interdisciplinary nature of public health work and include a lecture series and an enhanced field experience. Additionally, students work closely with faculty to design and complete an independent research project on a topic of their choice.

Curriculum: 33 Credits

| Code | Title | Credits |
|-----------------------|--|-----------|
| PBH 500 | Foundations of US HC System | 3 |
| PBH 502 | Society, Behavior & Environment | 3 |
| PBH 504 | Fundamentals of Stat for Rsrch | 3 |
| PBH 506 or PBH 606 | Fundamentals of Epidemiology Advanced Epidemiology | 3 |
| PBH 509 | Foundation of Policy & Advocacy | 3 |
| PBH 510 | Health Research Methods | 3 |
| PBH 660 | Clinical Public Health | 0 |
| PBH 651 | Clerkship Applied Practice Exp (C-APE) | 0 |
| PBH 613 & PBH 614 | LPHT Capstone - ILE 1 and LPHT Capstone - ILE 2 (C-ILE) | 3 |
| General Electives | | 12 |
| Total Credits | | 33 |

Public Health Bridge Programs

The bridge pathway is for undergraduate students at our partner institutions who will start taking MPH classes while earning their bachelor's degree.

Curriculum: 45 Credits

Students on the Bridge Pathway are required to:

- Provide their undergraduate transcript to Jefferson upon graduation
- Maintain active status in the MPH program
- Maintain a GPA of 3.0 or higher
- Complete the 120-hour applied practice field experience (Clerkship)
- Complete an independent Capstone Project of publishable quality

Public Health (MPH)

Contacts

Program Director: Rosemary (Rosie) Frasso, PhD, MSc, CPH

Email: Rosemary.Frasso@jefferson.edu
215-503-8901

Program Website: (<https://www.jefferson.edu/academics/colleges-schools-institutes/population-health/degrees-programs/public-health.html>)

Program Description

- STEM designated program

Social Work (MSS) & Public Health (MPH)

Contacts

Program Director: Rosemary (Rosie) Frasso, PhD, MSc, CPH

Email: Rosemary.Frasso@jefferson.edu
215-503-8901

Campus: Bryn Mawr

Program Website: (<https://www.jefferson.edu/academics/colleges-schools-institutes/population-health/degrees-programs/public-health/pathways/dual-degrees/MSSMPH.html>)

Program Description

The Master of Social Services/Master in Public Health (MSS/MPH) dual degree option is open to students enrolled at the Graduate School of Social Work and Social Research (GSSWSR) at Bryn Mawr College's Master of Social Services (MSS) program and JCPH's MPH program.

The MSS/MPH recognizes the long-standing synergy between social service/social work and public health. It accommodates the growing interest of professionals to seek advanced graduate training to enhance their skills in serving populations in need. The dual degree prepares students to work across siloes and in collaboration with communities and multidisciplinary teams of practitioners, researchers, lawyers, educators, and policy makers working to improve health.

Curriculum: 36 Credits

- MSS/MPH students complete 36 credits (12 courses) of MPH coursework. Additionally, students work closely with faculty to

design and complete an independent project on a topic of their choice.

MSS/MPH (Analytics Concentration)

| Code | Title | Credits |
|----------------------|---------------------------------|-----------|
| PBH 500 | Foundations of US HC System | 3 |
| PBH 501 | Foundations of Public Health | 3 |
| PBH 502 | Society, Behavior & Environment | 3 |
| PBH 504 | Fundamentals of Stat for Rsrch | 3 |
| PBH 506 | Fundamentals of Epidemiology | 3 |
| PBH 509 | Foundation of Policy & Advocacy | 3 |
| PBH 520 | Program Planning & Evaluation | 3 |
| PBH 512 | Qualitative Research Methods | 3 |
| PBH 605 | AdvStatMethodsforDataAnalysis | 3 |
| PBH 606 | Advanced Epidemiology | 3 |
| PBH 613 | LPHT Capstone - ILE 1 | 3 |
| PBH 614 | LPHT Capstone - ILE 2 | 0 |
| PBH 651 | Clerkship Applied Practice Exp | 0 |
| Transferred credits | | 9 |
| Total Credits | | 42 |

MSS/MPH (Public Health Practice Generalist), Public Health Policy & Advocacy, Healthcare Quality & Safety Concentrations)

| Code | Title | Credits |
|----------------------|---------------------------------|-----------|
| PBH 500 | Foundations of US HC System | 3 |
| PBH 501 | Foundations of Public Health | 3 |
| PBH 502 | Society, Behavior & Environment | 3 |
| PBH 506 | Fundamentals of Epidemiology | 3 |
| PBH 509 | Foundation of Policy & Advocacy | 3 |
| PBH 520 | Program Planning & Evaluation | 3 |
| PBH 512 | Qualitative Research Methods | 3 |
| PBH 613 | LPHT Capstone - ILE 1 | 3 |
| PBH 606 | Advanced Epidemiology | 3 |
| PBH 614 | LPHT Capstone - ILE 2 | 0 |
| PBH 651 | Clerkship Applied Practice Exp | 0 |
| Transferred credits | | 9 |
| Total Credits | | 36 |

College of Rehabilitation Sciences (JCRS)

Dean: Steven Williams, MD
College Website (<http://Jefferson.edu/JCRS/>)

About Us

Jefferson College of Rehabilitation Sciences brings together Occupational Therapy, Physical Therapy, Athletic Training, and Speech-Language Pathology. Our goal is to provide programs that are unique in terms of educating students to provide high-quality care that will integrate people back into their communities.

The College of Rehabilitation Sciences is proud to be home to two programs ranked by U.S. News & World Report: Occupational Therapy

and Physical Therapy. Both programs offer students opportunities to participate in research, clinical, and educational experiences.

The College is committed to becoming a recognized leader in innovative educational, clinical and research programs.

Academic Programs

Undergraduate

- Exercise Science (BS) (p. 182)
- Occupational Therapy (ASOT) (p. 188)

Graduate

- Athletic Training (MS) (p. 180)
- Occupational Therapy (PPOTD) (p. 188)
- Occupational Therapy - Center City (OTD) (p. 189)
- Occupational Therapy - Center City (MSOT) (p. 190)
- Occupational Therapy - East Falls (MSOT) (p. 191)
- Physical Therapy (DPT) (p. 192)
- Speech-Language Pathology (MS-SLP) (p. 193)

Certificate

- Coaching In Context (Advanced-Practice Certificate) (p. 181)
- Emerging Leaders in Autism Practice & Research (Advanced-Practice Certificate) (p. 182)
- Hand & Upper Limb Rehabilitation (Advanced-Practice Certificate) (p. 187)
- Life Care Planning (Graduate Certificate) (p. 187)
- Neuroscience: Advanced Concepts for Evidence Based Practice (Graduate Certificate) (p. 187)
- Teaching in the Digital Age (Advanced-Practice Certificate) (p. 193)

Accelerated & Dual Degree

- Exercise Science (BS) & Athletic Training (MSAT) (p. 183)
- Exercise Science (BS) & Occupational Therapy (OTD) (p. 184)
- Exercise Science (BS) & Physical Therapy (DPT) (p. 185)
- Occupational Therapy - East Falls (BS/MSOT) (p. 190)

University Accreditations (<https://www.jefferson.edu/about/consumer-information-disclosures.html>)

Athletic Training (MS)

Contacts

Program Director: Kelly Pagnotta, PhD, LAT, ATC

Email: Kelly.Pagnotta@jefferson.edu

215-951-2542

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/rehabilitation-sciences/departments/exercise-science/athletic-training/ms-athletic-training.html>)

Program Description

Designed to help meet the growing demand for professional Certified Athletic Trainers (ATC). The athletic training program is constructed to prepare highly motivated students with an interest in the medical field to sit for the N Board of Certification (BOC) examination upon graduation.

Learning Goals & Outcomes

- Participate as a part of a healthcare team by collaborating with colleagues through a complex medical system.
- Use physiological, anatomical and evidence-based knowledge in the clinical settings.
- Behave in a manner consistent with the code of conduct and standards of professional practice set forth by the Athletic Training governing bodies.
- Locate, evaluate and apply evidence-based resources to build knowledge and support athletic training practice.
- Demonstrate administrative duties affiliated with the athletic training profession.
- identify, describe and develop management plans for individuals with psychosocial disorders and/or mental health emergencies.

Curriculum: 2 Years, 65 Credits

| Course | Title | Credits |
|--------------------|---|-----------|
| First Year | | |
| Fall | | |
| Fall 1 | | |
| ATP 600 | Emergency Care | 4 |
| ATP 602 | Scientific Inquiry & Writing | 1 |
| ATP 605 | Fundamentals of Athl Training | 4 |
| ATP 610 | Basics of Rehabilitation | 3 |
| ATP 615 | Functional Human Anatomy | 3 |
| Fall 2 | | |
| ATP 620 | Practicum I | 2 |
| Credits | | 17 |
| Spring | | |
| Spring 1 | | |
| ATP 625 | Prev, Eval & Treat of Ath Inj I (Upper Extremity) | 4 |
| ATP 630 | Therap Modlities for Ath Train | 3 |
| ATP 635 | Human Phys: Exer, Nutri & Perf | 3 |
| ATP 645 | Motor Contrl & Humn Move Train | 3 |
| Spring 2 | | |
| ATP 640 | Practicum II Athl Injuries I | 3 |
| Credits | | 16 |
| Summer | | |
| ATP 691 | Research-Collaborative Proj I | 1 |
| ATP 660 | Specilty Practicm in Ath Train | 2 |
| Credits | | 3 |
| Second Year | | |
| Fall | | |
| Fall 1 | | |
| ATP 661 | Practicum III Ath Injuries I | 3 |
| Fall 2 | | |
| ATP 665 | Prev,Eval,Treat ofInj II-LowEx (Lower Extremity) | 4 |
| ATP 675 | Strength and Conditioning | 3 |
| ATP 685 | Org & Admin in Ath Training | 2 |
| ATP 690 | Gen Med Conditions&Pharm in AT | 3 |
| Credits | | 15 |
| Spring | | |
| Spring 1 | | |

| Course | Title | Credits |
|----------------------|--|-----------|
| ATP 662 | Practicum IV | 3 |
| Spring 2 | | |
| ATP 670 | Prev,Eval,Treat of Inj-III-Spn (Spine and advanced techniques) | 4 |
| ATP 695 | Psych Aspects of Injury& Rehab | 3 |
| ATP 696 | Special Topics in Ath Training | 2 |
| ATP 692 | Research-Collaborative Proj II | 1 |
| Credits | | 13 |
| Total Credits | | 64 |

Coaching In Context (Advanced-Practice Certificate)

Contacts

Program Director: Marie-Christine Potvin, PhD. OTR/L

Email: Marie-Christine.Potvin@jefferson.edu

215-951-2648

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/rehabilitation-sciences/departments/outcomes-measurement/education/coaching-in-context.html>)

Program Description

This Coaching in Context Advanced Practice Certificate was designed to provide healthcare and human service professionals with the knowledge and skills to use coaching within their work roles, whether clinical practice, education, or leadership. This interdisciplinary certificate enrolls those with a minimum of a bachelor's degree.

- Coaching provides clients, students, or employees a means to identify and solve issues that are relevant to their life's potential through client-directed, strength-based, and goal-focused conversations.
- Students will explore coaching evidence, principles, methods, and practice, develop skills to implement evidence-based coaching within their work roles, coach with fidelity reflecting standards, and evolve to provide group coaching and mentorship. t

The Coaching in Context APC is built on evidence from positive psychology and competencies of the International Coaching Federation. We will focus on coaching that promotes self-efficacy and problem-solving to support client's autonomy so that clients can live their best lives regardless of their circumstances.

Curriculum 16 Months, 12 Credits

| Code | Title | Credits |
|------------------------|--------------------------------|-----------|
| Core Curriculum | | |
| JCRS 760 | Introduction and Development | 3 |
| JCRS 761 | Skills for Evid-Based Coaching | 3 |
| JCRS 762 | Assess&Fidel of Coaching Implm | 3 |
| JCRS 763 | Coaching Evolution | 3 |
| Total Credits | | 12 |

Emerging Leaders in Autism Practice & Research (Advanced-Practice Certificate)

Contacts

Program Director: Alison Bell, OTD, OTR/L
Email: Alison.Bell@Jefferson.edu
Program Director: Roseann C. Schaaf, PhD, OTR/L, FAOTA
Email: Roseann.Schaaf@jefferson.edu
Campus: Online
 Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/rehabilitation-sciences/departments/occupational-therapy/degrees-programs/advanced-practice-certificates/autism.html>)

Program Description

This interprofessional certificate enhances professionals' knowledge related to working with adults and children with autism.

- Experts in the field teach the courses
- Four graduate-level courses (12 credits)
- Courses may be used for graduate credit toward a Doctorate degree (e.g., PP-OTD, DSc in Health Sciences)

Curriculum: 16 Months, 12 Credits

| Code | Title | Credits |
|------------------------|--------------------------------|-----------|
| Core Curriculum | | |
| OT 761 | Autism- The State of the Field | 3 |
| OT 766 | As & Int Strat for Indv w/ ASD | 3 |
| OT 751 | Neuroscience Found for Pract | 3 |
| OT 770 | KT to Promote Best Practices | 3 |
| Total Credits | | 12 |

Exercise Science (BS)

Contacts

Program Director: Stephen J. Thomas, PhD, ATC
Email: Stephen.Thomas@jefferson.edu
 215-951-2657
Campus: East Falls
 Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/rehabilitation-sciences/departments/exercise-science/degrees-programs/bs-exercise-science.html>)

Program Description

Designed for high school graduates that are interested in pursuing a career in the health and fitness field. This program provides a high-quality educational experience that couples both classroom and hands-on educational experiences necessary to obtain employment in a variety of health and fitness settings including:

- Personal training
- Strength coach
- Corporate wellness
- Exercise physiologist
- Cardiac rehabilitation

- Clinical exercise specialist
- Human performance
- Sport scientist

Learning Goals/Outcomes

- Demonstrate foundational knowledge in biology, chemistry, mathematics, physics, and psychology.
- Demonstrate practical knowledge in human anatomy/physiology, biomechanics, exercise science, and nutrition for a variety of populations and disease states.
- Conduct pre-participation health screenings and fitness assessments; analyze, interpret, and communicate results; and develop, implement, and instruct individualized training programs for a variety of populations and disease states.
- Develop and implement behavioral and motivational strategies, that incorporate effective communication and educational resources, to optimize participants' adoption and adherence to exercise, fitness, and nutritional programs and other healthy behaviors.
- Create emergency procedures, injury prevention programs and risk assessments for clients, staff, facilities, and business entities.
- Demonstrate knowledge in business management, marketing, and leadership to effectively operate a fitness facility while following safety and legal guidelines, standards and regulations.
- Qualify for national certification exams such as the American College of Sports Medicine's (ACSM) Certified Exercise Physiologist and/or National Strength and Conditioning Association's (NSCA)
- Integrate and apply evidence-based decision-making and critical thinking skills to improve the outcomes of the client.

Curriculum: 4 Years, 135 Credits

| Course | Title | Credits |
|-------------------------|---|--------------|
| First Year | | |
| Fall | | |
| FYS 100 | Pathways Seminar | 1 |
| CHEM 103 | Chemistry I | 3 |
| AVIS 101 | American Visions | 3 |
| CHEM 103L | Chemistry I Lab | 1 |
| MATH 102 or MATH 110 | Pre-Calculus or Pre-Calculus for Sci & Engrs | 3-4 |
| PSYC 101 | Intro to Psychology | 3 |
| BIO 103 | Biology I Laboratory | 1 |
| BIOL 103 | Biology I | 3 |
| Credits | | 18-19 |
| Spring | | |
| EXSC 110 | Intro to Exercise Science | 1 |
| WRIT 101AC | Writing Seminar I: Written Com | 3 |
| PSYC 253 | Developmental Psych | 3 |
| CHEM 104 | Chemistry II | 3 |
| CHEM 104L | Chemistry II Lab | 1 |
| BIO 104 | Biology II Laboratory | 1 |
| General Elective | | 3 |
| BIOL 104 | Biology II | 3 |
| Credits | | 18 |
| Second Year | | |
| Fall | | |
| General Elective | | 3 |
| GDIV 2XX | Global Diversity (Incl world languages) | 3 |
| PHY 101 | Physics I | 3 |
| PHY 103 | Physics I Laboratory | 1 |

| Course | Title | Credits |
|-------------------------|--|----------------|
| STAT 220 or BIOL 312 | Stats for the Behavioral Sci or Biostatistics | 3 |
| WRIT 201 | Writing Seminar II:Multi Comm | 3 |
| Credits | | 16 |
| Spring | | |
| General Elective | | 3 |
| GCIT 2XX | Global Citizenship (Incl world languages) | 3 |
| ETHIC 2XX | Ethics | 3 |
| EXSC XXX | American Diversity | 3 |
| EXSC 210 | Developing the Interprof Team | 1 |
| PHY 102 | Physics II | 3 |
| PHY 104 | Physics II Laboratory | 1 |
| Credits | | 17 |
| Third Year | | |
| Fall | | |
| Integrative Seminar | | 3 |
| BIO 201 | Anatomy&Physiology I | 3 |
| BIO 202 | Anatomy&Physiology I Lab | 1 |
| CGIS 300 | Contemporary Global Issues | 3 |
| EXSC 312 | Psych Theory of Hlth & Exerc | 3 |
| EXSC 311 | Sports Nutrition | 3 |
| EXSC 313 | Safety, First Aid & Inj Preven | 3 |
| Credits | | 19 |
| Spring | | |
| BIO 203 | Anatomy & Physiology II | 3 |
| BIO 204 | Anatomy & Physiology II Lab | 1 |
| EXSC 330 | Internship I | 3 |
| EXSC 310 | Exercise Physiology | 3 |
| General Elective | | 3 |
| PHIL 499 | Philosophies of the Good Life | 3 |
| BIOL 201L | Human Anat & Physiology I Lab | 1 |
| Credits | | 17 |
| Fourth Year | | |
| Fall | | |
| EXSC 301 | Biomechanics | 3 |
| EXSC 402 | Coaching: Strength Training | 3 |
| EXSC 430 | Internship II | 6 |
| EXSC 405 | Fitness Assessment | 3 |
| Credits | | 15 |
| Spring | | |
| EXSC 410 | Exercise for Spec Populations | 3 |
| EXSC 412 | Found of Strength & Condition | 3 |
| EXSC 414 | Bus & Leadership in Ex Sci | 3 |
| EXSC 401 | Exercise Prescription | 3 |
| EXSC 416 | Research Methods | 3 |
| Credits | | 15 |
| Total Credits | | 135-136 |

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/rehabilitation-sciences/departments/exercise-science/degrees-programs/bses-ms-athletic-training.html>)

Program Description

Designed for high school graduates that are interested in pursuing a career in athletic training. This program provides an accelerated degree path that shortens the time to graduation by one full year, while still delivering a high quality high-quality educational experience that couples both classroom and clinical based educational experiences necessary to earn a Bachelor of Science in exercise science and a masters in athletic training. The exercise science aspect will provide graduates with foundational knowledge in science, anatomy, physiology, biomechanics and exercise prescription.

Curriculum: Years 1-3

| Course | Title | Credits |
|--------------------------------|---|--------------|
| First Year | | |
| Fall | | |
| FYS 100 | Pathways Seminar | 1 |
| CHEM 103 | Chemistry I | 3 |
| CHEM 103L | Chemistry I Lab | 1 |
| AVIS 101 | American Visions | 3 |
| MATH 102 or MATH 110 | Pre-Calculus or Pre-Calculus for Sci & Engrs | 3-4 |
| PSYC 101 | Intro to Psychology | 3 |
| BIOL 103 | Biology I | 3 |
| BIOL 103 | Biology I Laboratory | 1 |
| Credits | | 18-19 |
| Spring | | |
| EXSC 110 | Intro to Exercise Science | 1 |
| WRIT 101 | Writing Sem I: Written Comm. | 3 |
| PSYC 102 | Course PSYC 102 Not Found | 3 |
| WRIT 201H | Writ Sem 2: Multimedia Comm | 3 |
| CHEM 104 | Chemistry II | 3 |
| General Elective | | 3 |
| CHEM 104L | Chemistry II Lab | 1 |
| BIOL 104 | Biology II | 3 |
| BIOL 104L | Biology II Lab | 1 |
| Credits | | 21 |
| Second Year | | |
| Fall | | |
| STAT 220 or STAT 301 | Stats for the Behavioral Sci or Course STAT 301 Not Found or STAT 301 | 3 |
| WRIT 201 | Writing Seminar II:Multi Comm | 3 |
| PHYC 201 | Physics I | 3 |
| PHYC 201L | Physics I Lab | 1 |
| General Elective | | 3 |
| GDIV 2XX | Global Diversity Placeholder | 3 |
| Credits | | 16 |
| Spring | | |
| ETHC 1XX | Ethics Course Placeholder | 3 |
| GCIT 2XX | Global Citizenship Placeholder | 3 |
| ADIV 2XX | American Diversity Placeholder | 3 |
| PHYC 203 | Phys II: Waves, Elec, & Mag | 3 |
| PHYC 203L | Physics II Lab | 1 |
| EXSC 210 | Developing the Interprof Team | 1 |
| Concentration Coursework (p.) | | 3 |
| Credits | | 17 |

Exercise Science (BS) & Athletic Training (MSAT)

Contacts

Program Director: Stephen J. Thomas, PhD, ATC

Email: Stephen.Thomas@jefferson.edu

215-951-2657

Campus: East Falls

| Course | Title | Credits |
|----------------------|--------------------------------|----------------|
| Third Year | | |
| Fall | | |
| CGIS 300 | Contemporary Global Issues | 3 |
| BIO 201 | Anatomy&Physiology I | 3 |
| BIO 202 | Anatomy&Physiology I Lab | 1 |
| EXSC 311 | Sports Nutrition | 3 |
| EXSC 312 | Psych Theory of Hlth & Exerc | 3 |
| EXSC 313 | Safety, First Aid & Inj Preven | 3 |
| Credits | | 16 |
| Spring | | |
| BIO 203 | Anatomy & Physiology II | 3 |
| BIO 204 | Anatomy & Physiology II Lab | 1 |
| EXSC 310 | Exercise Physiology | 3 |
| EXSC 330 | Internship I | 3 |
| General Elective | | 3 |
| Integrative Seminar | | 3 |
| PHIL 499 | Philosophies of the Good Life | 3 |
| Credits | | 19 |
| Total Credits | | 107-108 |

Curriculum: Years 4-6

- Professional Phase

| Course | Title | Credits |
|--------------------|---|-----------|
| First Year | | |
| Fall | | |
| Fall 1 | | |
| ATP 600 | Emergency Care | 4 |
| ATP 602 | Scientific Inquiry & Writing | 1 |
| ATP 605 | Fundamentals of Athl Training | 4 |
| ATP 610 | Basics of Rehabilitation | 3 |
| ATP 615 | Functional Human Anatomy | 3 |
| Fall 2 | | |
| ATP 620 | Practicum I | 2 |
| Credits | | 17 |
| Spring | | |
| Spring 1 | | |
| ATP 625 | Prev, Eval & Treat of Ath Inj I (Upper Extremity) | 4 |
| ATP 630 | Therap Modlities for Ath Train | 3 |
| ATP 635 | Human Phys: Exer, Nutri & Perf | 3 |
| ATP 645 | Motor Contrl & Humn Move Train | 3 |
| Spring 2 | | |
| ATP 640 | Practicum II Athl Injuries I | 3 |
| Credits | | 16 |
| Summer | | |
| ATP 691 | Research-Collaborative Proj I | 1 |
| ATP 660 | Specilty Practicum in Ath Train | 2 |
| Credits | | 3 |
| Second Year | | |
| Fall | | |
| Fall 1 | | |
| ATP 661 | Practicum III Ath Injuries I | 3 |
| Fall 2 | | |
| ATP 665 | Prev, Eval, Treat of Inj II-LowEx (Lower Extremity) | 4 |
| ATP 675 | Strength and Conditioning | 3 |
| ATP 685 | Org & Admin in Ath Training | 2 |
| ATP 690 | Gen Med Conditions&Pharm in AT | 3 |
| Credits | | 15 |
| Spring | | |
| Spring 1 | | |

| Course | Title | Credits |
|----------------------|--|-----------|
| ATP 662 | Practicum IV | 3 |
| Spring 2 | | |
| ATP 670 | Prev, Eval, Treat of Inj-III-Spn (Spine and advanced techniques) | 4 |
| ATP 695 | Psych Aspects of Injury& Rehab | 3 |
| ATP 696 | Special Topics in Ath Training | 2 |
| ATP 692 | Research-Collaborative Proj II | 1 |
| Credits | | 13 |
| Total Credits | | 64 |

Exercise Science (BS) & Occupational Therapy (OTD) Contacts

Program Director: Stephen J. Thomas, PhD, ATC

Email: Stephen.Thomas@jefferson.edu

215-951-2657

Program Director: E. Adel Herge, OTD, OTR/L, FAOTA

Email: Adel.Herge@jefferson.edu

215-503-9608

Campus: Center City, East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/rehabilitation-sciences/departments/exercise-science/degrees-programs/exercise-science-to-doctor-of-occupational-therapy.html>)

Program Description

Designed for high school graduates that are interested in pursuing a career in occupational therapy. This program provides an accelerated degree path that shortens the time to graduation by one full year, while still delivering a high-quality educational experience that couples both classroom and clinical based educational experiences necessary to earn a Bachelor's of Science in exercise science and a doctorate in occupational therapy. The exercise science aspect will provide graduates with foundational knowledge in science, anatomy, physiology, biomechanics and exercise prescription

Curriculum: Years 1-3

| Course | Title | Credits |
|--------------------|--------------------------------|-----------|
| First Year | | |
| Fall | | |
| FYS 100 | Pathways Seminar | 1 |
| AVIS 101 | American Visions | 3 |
| CHEM 103 | Chemistry I | 3 |
| CHEM 103L | Chemistry I Lab | 1 |
| Credits | | 8 |
| Spring | | |
| EXSC 110 | Intro to Exercise Science | 1 |
| WRIT 101 | Writing Sem I: Written Comm. | 3 |
| PSYC 213 | Developmental Psychology | 3 |
| WRIT 202 | Writing Seminar II: Multi Comm | 4 |
| CHEM 104 | Chemistry II | 3 |
| CHEM 104L | Chemistry II Lab | 1 |
| General Elective | | 3 |
| Credits | | 18 |
| Second Year | | |
| Fall | | |
| PSYC 201 | Abnormal Psychology | 3 |

| Course | Title | Credits |
|----------------------|--------------------------------|-----------|
| GDIV 2XX | Global Diversity Placeholder | 3 |
| PHY 101 | Physics I | 3 |
| PHY 103 | Physics I Laboratory | 1 |
| STAT 220 | Stats for the Behavioral Sci | 3 |
| or STAT 301 | | 3 |
| WRIT 201 | Writing Seminar II:Multi Comm | 3 |
| Credits | | 19 |
| Spring | | |
| General Elective | | 3 |
| GCIT 2XX | Global Citizenship Placeholder | 3 |
| ETHC 2XX | Ethics Course Placeholder | 3 |
| ADIV 2XX | American Diversity Placeholder | 3 |
| PHY 102 | Physics II | 3 |
| PHYC 203L | Physics II Lab | 1 |
| EXSC 210 | Developing the Interprof Team | 1 |
| Credits | | 17 |
| Third Year | | |
| Fall | | |
| BIO 201 | Anatomy&Physiology I | 3 |
| BIO 202 | Anatomy&Physiology I Lab | 1 |
| CGIS 300 | Contemporary Global Issues | 3 |
| EXSC 311 | Sports Nutrition | 3 |
| EXSC 312 | Psych Theory of Hlth & Exerc | 3 |
| EXSC 313 | Safety, First Aid & Inj Preven | 3 |
| ISEM 3XX | Integrative Sem Placeholder | 3 |
| Credits | | 19 |
| Spring | | |
| BIO 203 | Anatomy & Physiology II | 3 |
| BIO 202 | Anatomy&Physiology I Lab | 1 |
| EXSC 330 | Internship I | 3 |
| EXSC 310 | Exercise Physiology | 3 |
| General Elective | | 3 |
| PHIL 499 | Philosophies of the Good Life | 3 |
| Credits | | 16 |
| Total Credits | | 97 |

OTD Curriculum: Years 4-6

Program Director: Tina DeAngelis, EdD, OTR/L

| Course | Title | Credits |
|-------------------|--------------------------------|-----------|
| First Year | | |
| Fall | | |
| OT 302 | Course OT 302 Not Found (LB) | 4 |
| OT 311 | Course OT 311 Not Found | 4 |
| OT 321 | Course OT 321 Not Found | 2 |
| OT 336 | Course OT 336 Not Found | 5 |
| OT 340 | Course OT 340 Not Found | 2 |
| OT 700 | Develop OTD Practice Toolkit | 1 |
| Credits | | 18 |
| Spring | | |
| OT 322 | Course OT 322 Not Found | 2 |
| OT 357 | Course OT 357 Not Found | 4 |
| OT 577 | Histor Analysis-Theory | 3 |
| OT 560 | Environmental Competence | 3 |
| OT 561 | Environmental Competence Lab | 1 |
| OT 562 | Environmental Comp in Action | 1 |
| OT 701 | Expl of Doctoral Level OT Prac | 1 |
| OT 308 | Course OT 308 Not Found | 4 |
| Credits | | 19 |

| Course | Title | Credits |
|---------------------------------------|--|------------|
| Summer | | |
| OT 341 | Course OT 341 Not Found | 2 |
| OT 467 | Course OT 467 Not Found | 2 |
| OT 603 | Research Design | 4 |
| OT 702 | OTD Leader: Nation&GlobalPersp | 1 |
| Credits | | 9 |
| Second Year | | |
| Fall | | |
| OT 440 | Course OT 440 Not Found | 2 |
| OT 441 | Course OT 441 Not Found | 2 |
| OT 552 | Course OT 552 Not Found | 5 |
| OT 558 | Course OT 558 Not Found | 3 |
| OT 703 | ProfessionalPracticeInquiryOT | 3 |
| General Elective or Independent Study | | 3 |
| Credits | | 18 |
| Spring | | |
| OT 480 | Course OT 480 Not Found (January through March) | 6 |
| OT 482 | Course OT 482 Not Found (April through June) | 6 |
| OT 704A | Evidence-Based Prac & DDDMP I (online January-March) | 3 |
| OT 704B | Evidence-Based Prac & DDDMP II (online April-June) | 3 |
| Credits | | 18 |
| Summer | | |
| OT 705 | AdvEv Based Practice OTD Stude | 4 |
| OT 706 | VisPrac:CreateMeasureOutcomes | 3 |
| OT 707 | OTD Capstone:Prep for Exp/Proj | 2 |
| Credits | | 9 |
| Third Year | | |
| Fall | | |
| OT 720 | Doctoral Capstone Seminar A | 12 |
| Credits | | 12 |
| Spring | | |
| OT 721 | Doctoral Capstone Seminar B | 12 |
| Credits | | 12 |
| Total Credits | | 115 |

Exercise Science (BS) & Physical Therapy (DPT)

Dept. Chair: Justine Dee, PT, MS, PhD (<https://www.jefferson.edu/academics/colleges-schools-institutes/rehabilitation-sciences/departments/exercise-science/degrees-programs/exercise-science-to-doctor-of-physical-therapy.html>)

Program Description

Designed for high school graduates that are interested in pursuing a career in physical therapy. This program provides an accelerated degree path that shortens the time to graduation by one full year, while still delivering a high-quality educational experience that couples both classroom and clinical based educational experiences necessary to earn a Bachelor of Science in exercise science and a doctorate in physical therapy. The exercise science aspect will provide graduates with foundational knowledge in science, anatomy, physiology, biomechanics and exercise prescription.

Curriculum: Years 1-3

| Course | Title | Credits |
|--------------------------------|---|-----------|
| First Year | | |
| Fall | | |
| FYS 100 | Pathways Seminar | 1 |
| AVIS 101 | American Visions | 3 |
| CHEM 103 | Chemistry I | 3 |
| CHEM 103L | Chemistry I Lab | 1 |
| BIO 101 | Biology I | 3 |
| BIO 103 | Biology I Laboratory | 1 |
| MATH 102 or MATH 110 | Pre-Calculus or Pre-Calculus for Sci & Engrs | 3 |
| PSYC 101 | Intro to Psychology | 3 |
| Credits | | 18 |
| Spring | | |
| EXSC 110 | Intro to Exercise Science | 1 |
| CHEM 104 | Chemistry II | 3 |
| CHE 104 | General Chemistry II Lab | 1 |
| PSYC 213 | Developmental Psychology | 3 |
| BIO 102 | Biology II | 3 |
| BIO 104 | Biology II Laboratory | 1 |
| WRIT 101 | Writing Sem I: Written Comm. | 3 |
| Concentration Coursework (p.) | | 3 |
| Credits | | 18 |
| Second Year | | |
| Fall | | |
| GDIV 1XX | Global Diversity Placeholder | 3 |
| PHY 101 | Physics I | 3 |
| PHY 103 | Physics I Laboratory | 1 |
| STAT 220 or STAT 301 | Stats for the Behavioral Sci | 3 |
| WRIT 201 | Writing Seminar II: Multi Comm | 3 |
| Concentration Coursework (p.) | | 3 |
| Credits | | 16 |
| Spring | | |
| EXSC 210 | Developing the Interprof Team | 1 |
| GCIT 2XX | Global Citizenship Placeholder | 3 |
| ETHC 2XX | Ethics Course Placeholder | 3 |
| ADIV 2XX | American Diversity Placeholder | 3 |
| PHYC 203 | Phys II: Waves, Elec, & Mag | 3 |
| PHYC 203L | Physics II Lab | 1 |
| Credits | | 14 |
| Third Year | | |
| Fall | | |
| ISEM 3XX | Integrative Sem Placeholder | 3 |
| BIO 201 | Anatomy & Physiology I | 3 |
| BIO 202 | Anatomy & Physiology I Lab | 1 |
| CGIS 300 | Contemporary Global Issues | 3 |
| EXSC 311 | Sports Nutrition | 3 |
| EXSC 313 | Safety, First Aid & Inj Preven | 3 |
| Credits | | 16 |
| Spring | | |
| BIO 203 | Anatomy & Physiology II | 3 |
| BIO 204 | Anatomy & Physiology II Lab | 1 |
| EXSC 330 | Internship I | 3 |
| EXSC 310 | Exercise Physiology | 3 |
| PHIL 499 | Philosophies of the Good Life | 3 |
| Concentration Coursework (p.) | | 3 |
| Credits | | 16 |
| Total Credits | | 98 |

DPT Curriculum: Years 4-6

Program Chair: Jane Fedorczyk, PT, PhD, CHT

| Course | Title | Credits |
|--------------------|--|-----------|
| Fourth Year | | |
| Pre-Fall | | |
| PT 507 | Advanced Human Anatomy for PTs | 6 |
| PT 534 | Intro to the PT Profession | 1 |
| PT 536 | Medical Terminology | 1 |
| PT 527 | Evidence Based Practice I | 3 |
| Credits | | 11 |
| Fall | | |
| PT 506 | Biomechanics and Kinesiology | 4 |
| PT 516 | Neuroscience | 3 |
| PT 533 | Intro to PT Examination | 5 |
| PT 538 | Psychosocial Aspects of PT | 2 |
| PT 539 | Clinical Decision Making | 1 |
| PT 545 | Integrated Clin Exp I | 1 |
| Credits | | 16 |
| Spring | | |
| PT 513 | Pathophysiology I | 3 |
| PT 518 | Movement System in PT | 2 |
| PT 624 | Evidence Based Practice II | 2 |
| PT 546 | Integrated Clin Exp II | 1 |
| PT 555 | Intro to Therapeutic Interven | 6 |
| Credits | | 14 |
| Fifth Year | | |
| Pre-Fall | | |
| PT 514 | Pathophysiology II | 3 |
| PT 607 | Musculoskeletal PT I | 4 |
| PT 611 | Cardiovasc & Pulm PT I | 2 |
| PT 613 | Pharmacology | 2 |
| PT 661 | Integumentary PT | 3 |
| Credits | | 14 |
| Fall | | |
| PT 608 | Musculoskeletal PT II | 4 |
| PT 612 | Cardiovasc & Pulm PT II | 3 |
| PT 621 | Neuromuscular PT I | 5 |
| PT 645 | Integrated Clin Exp III (ICE; 1/2 class) | 1 |
| PT 670 | Prosthetics and Orthotics | 3 |
| PT 680 | FT Clin Ed Experience Prep | 1 |
| Credits | | 17 |
| Spring | | |
| Spring A | | |
| PT 685 | FT Clin Ed Experience I | 6 |
| Spring B | | |
| PT 609 | Musculoskeletal PT III | 4 |
| PT 622 | Neuromuscular PT II | 4 |
| PT 645 | Integrated Clin Exp III | 1 |
| PT 645 | Integrated Clin Exp III | 1 |
| Credits | | 16 |
| Sixth Year | | |
| Pre-Fall | | |
| PT 785 | FT Clin Ed Experience II | 9 |
| Credits | | 9 |
| Fall | | |
| PT 632 | Healthcare Delivery Systems | 3 |
| PT 700 | Med Screen & Diff Diagno in PT | 2 |
| PT 674 | Pediatric PT | 3 |
| PT 700 | Med Screen & Diff Diagno in PT | 2 |
| PT 736 | Business and Leadership in PT | 3 |

| Course | Title | Credits |
|----------------------|-----------------------------|------------|
| PT 721 | Evidence Based Practice III | 2 |
| Credits | | 15 |
| Spring | | |
| PT 786 | FT Clin Ed Experience III | 12 |
| Credits | | 12 |
| Total Credits | | 124 |

Hand & Upper Limb Rehabilitation (Advanced-Practice Certificate)

Contacts

Program Director: Jane Fedorczyk, PT, PhD, CHT

Email: Jane.Fedorczyk@jefferson.edu

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/rehabilitation-sciences/departments/hand-upper-limb-rehabilitation.html>)

Program Description

The Advanced Practice Certificate in Hand and Upper Limb Rehabilitation is designed for physical therapists and occupational therapists who wish to participate in advanced practice education in the examination, assessment, and management of clients that present with conditions associated with hand and upper limb dysfunction.

- The curriculum consists of four graduate level courses, offered in a convenient online format with integrated onsite weekend sessions to practice psychomotor skills required for advanced practice.
- Graduate credits (12) may be applied toward our Post-Professional OTD program.
- Elevate and expand hand therapy services through clinical decision-making that is consistent with the concepts of client-center care and evidence-informed practice.

Curriculum: 16 Months, 12 Credits

| Code | Title | Credits |
|------------------------|--------------------------------|-----------|
| Core Curriculum | | |
| JCRS 750 | Foundations in Hand Therapy | 3 |
| JCRS 751 | Nerve Injuries of the Hand&UL | 3 |
| JCRS 752 | Joint Pathology of the Hand&UL | 3 |
| JCRS 753 | Diseases That Affect Hand & UL | 3 |
| Total Credits | | 12 |

Life Care Planning (Graduate Certificate)

Contacts

Program Director: MaryJane Mulcahey

Email: Maryjane.Mulcahey@jefferson.edu
215-503-2888

Program Director: Alison Bell

Email: Alison.Bell@Jefferson.edu

Campus: Online

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/rehabilitation-sciences/departments/outcomes-measurement/education/life-care-planning-graduate-certificate.html>)

Program Description

The Life Care Planning Graduate Certificate is designed for interdisciplinary professionals with a minimum of a bachelor's degree with a desire to develop and use a Life Care Plan (LCP).

Professionals involved in health care and education would benefit from this program, as the Life Care Planning Graduate Certificate will provide an overview of concepts and disease\diagnoses-specific considerations to include in the LCP, and training on how to present and defend LCP content. For those working with persons with catastrophic injuries and chronic conditions in hospitals, rehabilitation centers, community-based practices and in the home, the Life Care Planning Graduate Certificate will provide an overview of LCP concepts and of how the medical, nursing and therapy teams contribute to the LCP.

Those who complete the Graduate Certificate will understand the purpose, content, process of development, and utilization of the LCP, and will be able to contribute to a LCP.

After successfully completing the four courses, students will receive a post-professional certificate of completion. The credits may be applied to the Post Professional OTD program offered in the Jefferson College of Rehabilitation Sciences and may be used toward pre-certification training hours to qualify for the Certified Life Care Planner (CLCP) credential through the International Commission on Health Care Certification (ICHCC).

Curriculum: 1 Year, 9 Credits

| Code | Title | Credits |
|------------------------|---|----------|
| Core Curriculum | | |
| JCRS 730 | Intro to Life Care Planning (Fall) | 3 |
| JCRS 731 | Prim on Cat Inj & Chr Cond LCP (Spring) | 3 |
| JCRS 732 | Specialty Topics in LCP (Summer 1) | 2 |
| JCRS 733 | LCP Practicum (Summer 2) | 1 |
| Total Credits | | 9 |

Neuroscience: Advanced Concepts for Evidence Based Practice (Graduate Certificate)

Contacts

Program Director: Alison Bell, OTD, OTR/L

Email: Alison.Bell@jefferson.edu

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/rehabilitation-sciences/departments/occupational-therapy/degrees-programs/advanced-practice-certificates/neuroscience.html>)

Program Description

This certificate is designed for occupational therapists who wish to advance their knowledge of neuroscience and neuro-based rehabilitation assessment and intervention.

- Credits may be applied toward a Doctoral degree (e.g., PP-OTD, DSc in Health Sciences, EdD)

Curriculum: 16 Months, 12 Credits

| Code | Title | Credits |
|------------------------|--|-----------|
| Core Curriculum | | |
| OT 751 | Neuroscience Found for Pract (Summer) | 3 |
| OT 753 | Neurorehabilitation I (i.e., Advance Concept in Neuroscience - Spring) | 3 |
| OT 770 | KT to Promote Best Practices (Fall) | 3 |
| OT 778 | Adv Evidence-Based Practice (Fall) | 3 |
| Total Credits | | 12 |

Occupational Therapy (PPOTD)

Contacts

Program Director: Marie-Christine Potvin, PhD, OTR/L

Email: Marie-Christine.Potvin@jefferson.edu

215-951-2648

Campus: Online

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/rehabilitation-sciences/departments/occupational-therapy/degrees-programs/post-professional.html>)

Program Description

The Post-Professional Doctorate in Occupational Therapy program prepares students to innovate and lead in traditional and emerging areas of occupational therapy and beyond through a customized plan of study. Students gain advanced knowledge and skills to enhance their current or anticipated professional roles in an evidence-based manner. They also develop scholarship and program development skills with clinical, leadership, entrepreneurship, and academic applications. Students advance occupational therapy theory and practice by integrating knowledge from various fields, such as occupational science, business, management, leadership, epidemiology, rehabilitation, public health, and neuroscience, to respond to the current and future needs of individuals, organizations, and populations. With the support of their faculty mentor, students develop, implement, analyze, and disseminate a substantive and impactful doctoral project over a series of courses.

Curriculum:

Students Entering with a Bachelor Degree (13 Credits + 30 Credits Master to PPOTD)

| Code | Title | Credits |
|----------------------|--|-----------|
| OT 603 | Research Design (All semesters except Summer II) | 4 |
| OT 680 | Leading Edge OT Practice (Fall & Spring) | 3 |
| OT 681 | Advanced Prac in OT (All semesters except Summer II) | 6 |
| Total Credits | | 13 |

* Students who begin their PPOTD and have not yet earned a master's degree, complete the 13 credits above, then complete the 30 credits below.

Students Entering with an Earned Master's Degree (30 Credits)

| Code | Title | Credits |
|--|--|-----------|
| Core Courses | | |
| OT 778 | Adv Evidence-Based Practice (Fall) | 3 |
| OT 782 | Leadership: Moving Beyond Trad (Spring) | 3 |
| OT 727 | Visionary Prac Devel & Eval (Fall & Spring) ¹ | 3 |
| OT 798 | Doctorate Seminar (All) | 1 |
| OT 799A | Exploratory Sem in Research | 3 |
| OT 809 | Planning the Doctoral Project | 3 |
| OT 810 | Post Prof Doctoral Capstone | 5 |
| Elective Courses | | |
| OT 751 | Neuroscience Found for Pract | |
| OT 761 | Autism- The State of the Field | |
| OT 766 | As & Int Strat for Indv w/ ASD | |
| OT 770 | KT to Promote Best Practices | |
| JCRS 760 | Introduction and Development | |
| JCRS 761 | Skills for Evid-Based Coaching | |
| JCRS 762 | Assess&Fidel of Coaching Implm | |
| JCRS 763 | Coaching Evolution | |
| OT 753 | Neurorehabilitation I | |
| OT 770 | KT to Promote Best Practices | |
| OT 783 | Bridging the Gaps | |
| OT 784 | Teaching in the Digital Age | |
| OT 785 | Advanced Curriculum Developmnt | |
| PPOTD SPECIFIC ELECTIVES | | |
| OT 799B | Mentored Seminar in Research | |
| OT 786 | Health Literacy | |
| OT 797 | Cul Humil for Transf Hlth Care | |
| OT 603 | Research Design | |
| OT 632 | Intro Critic Disabilty Studies | |
| REFLECTIONS & SYNTHESIS OF EXPERIENCE COURSES | | |
| OT 689 | Innovations in OT Therapy Prac | |
| OT 690 | Advanced OT Therapy Skills | |
| OT 691 | Professional Leadership | |
| Total Credits | | 30 |

1. Students have the option of completing OT 727 Visionary Practice or OT 770 Knowledge Translation for Best Practice

Occupational Therapy (ASOT)

Contacts

Program Director: Sara Loesche, MS,OTR/L, CHT

Email: Sara.Loesche@jefferson.edu

215-951-0488

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/rehabilitation-sciences/departments/occupational-therapy/degrees-programs/associates-occupational-therapy.html>)

Program Description

The AS in Occupational Therapy prepares graduates to become Certified Occupational Therapy Assistants, or COTAs. COTAs work in

collaboration with occupational therapists to provide hands-on services to people of all ages who are learning or relearning ways to succeed in the occupations of life: any tasks one may do on a daily basis for work or leisure. The program is structured for adult learners and provides hands-on learning:

Five 8-week terms per year, with classes two evenings per week and Saturday mornings.

- Additional learning and activities occur through an online format.
- Clinical component, with five total clinical fieldwork experiences required. The first three placements are part-time (36 hours per term), and the final two terms consist of two 8-week, full-time clinical placements—preparing you for your transition into the field.

Curriculum: 2 Years, 69 Credits

| Code | Title | Credits |
|----------------------|---------------------------------|-----------|
| IT 201 | Learning and Technology | 3 |
| WRIT 105 | Writing About Workplace Culture | 3 |
| HIST 232 | Hist & Philosophy of OTA Prac | 3 |
| BIOL 101 | Current Topics in Biology | 3 |
| OTA 300 | Anat, Physiology & Biomechanics | 6 |
| OTA 101 | Intro Psy & Mentl Hlth for OTA | 3 |
| OTA 302 | Occp: Infancy Thru Adolescence | 3 |
| OTA 306 | Conditions I: Infancy/Adolescen | 3 |
| OTA 304 | Occu Across the Lifespan Adult | 3 |
| OTA 308 | Conditions II: Adulthood | 3 |
| OTA 310 | Environ & Contexts of Occupat | 3 |
| OTA 410 | Interv I: Infancy/Adolescence | 4 |
| OTA 412 | Intervntn II: Young/Mid Adult | 4 |
| MATH 215 | College Algebra | 3 |
| OTA 414 | Intervntn III: Late Adulthood | 4 |
| OTA 400 | Leadership & Human Servs Syst | 3 |
| OTA 406 | Fieldwork level II A | 6 |
| OTA 402 | Ethics & Critical Thinking I | 2 |
| OTA 408 | Fieldwork Level II B | 6 |
| OTA 404 | Ethics & Critical Thinking II | 1 |
| Total Credits | | 69 |

Occupational Therapy - Center City (OTD)

Contacts

Program Director: Catherine Verrier Piersol, PhD, OTR/L, FAOTA
Email: Catherine.Piersol@jefferson.edu
215-503-9509

Program Director: Mary Muhlenhaupt, OTD, OTR/L, FAOTA
Email: Mary.Muhlenhaupt@jefferson.edu

Campus: Center City
Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/rehabilitation-sciences/departments/occupational-therapy/degrees-programs/doctorate.html>)

Program Description

The Doctor of Occupational Therapy (OTD) in Center City is a program for students who have earned a bachelor's degree in a field other than

occupational therapy. The curriculum follows a traditional weekday format. The OTD program is completed in 3 years, including fieldwork.

PLEASE NOTE: Students who entered OTD-CC program prior to Fall 2023 should consult their Department Handbook for the curriculum.

Curriculum: 33 months, 108 Credits

| Course | Title | Credits |
|---------------------------------------|--|-----------|
| First Year | | |
| Fall | | |
| OT 502 | Applied Anatomy & Kinesiology | 4 |
| OT 511 | Health & Health Conditions | 3 |
| OT 521 | Founda for Occ Ctrd Prac I | 2 |
| OT 536 | Occ Through the Life Span | 5 |
| OT 540 | Domains OT Practice: Fieldwork | 2 |
| OT 700 | Develop OTD Practice Toolkit | 1 |
| Credits | | 17 |
| Spring | | |
| OT 508 | Neuroscience Foundations of OT | 4 |
| OT 522 | Found of Occupation- Practice | 2 |
| OT 557 | Evaluation Process | 4 |
| OT 560 | Environmental Competence | 3 |
| OT 561 | Environmental Competence Lab | 1 |
| OT 562 | Environmental Comp in Action | 1 |
| OT 577 | Histor Analysis-Theory | 3 |
| OT 701 | Expl of Doctoral Level OT Prac | 1 |
| Credits | | 19 |
| Summer | | |
| OT 541 | Occ Analysis/Eval Field Lvl I | 2 |
| OT 603 | Research Design | 4 |
| OT 667 | Health Services Administration | 2 |
| Credits | | 8 |
| Second Year | | |
| Fall | | |
| OT 640 | Inter: Enhn Hmn Per: Fldwrk L1 | 2 |
| OT 641 | Inter: Enhn Soc Prt: Fldwrk L1 | 2 |
| OT 652 | Inter: Enhn Hum Perf Prac/Lab | 5 |
| OT 658 | Inter: Enhn Soc Partici / Lab | 3 |
| OT 703 | Professional Practice Inquiry OT | 3 |
| General Elective or Independent Study | | 3 |
| Credits | | 18 |
| Spring | | |
| OT 704A | Evidence-Based Prac & DDDMP I | 3 |
| OT 780 | Fieldwork Level II A | 9 |
| Credits | | 12 |
| Summer | | |
| Summer 1 | | |
| OT 704B | Evidence-Based Prac & DDDMP II (online April-June) | 3 |
| OT 781 | Fieldwork Level II B | 9 |
| Summer 2 | | |
| OT 705 | AdvEv Based Practice OTD Stude | 4 |
| OT 706 | VisPrac: Create Measure Outcomes | 3 |
| OT 707 | OTD Capstone: Prep for Exp/Proj | 2 |
| Credits | | 21 |
| Third Year | | |
| Fall | | |
| OT 720 | Doctoral Capstone Seminar A | 12 |
| Credits | | 12 |

| Course | Title | Credits |
|----------------------|-----------------------------|------------|
| Spring | | |
| OT 721 | Doctoral Capstone Seminar B | 12 |
| Credits | | 12 |
| Total Credits | | 119 |

Occupational Therapy- Center City (MSOT)

Contacts

Program Director: Catherine Verrier Piersol, PhD, OTR/L, FAOTA

Email: Catherine.Piersol@jefferson.edu

215-503-9509

Program Director: Stephen B. Kern, PhD, OTR/L, FAOTA

Email: Stephen.Kern@jefferson.edu

215-503-8013

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/rehabilitation-sciences/departments/occupational-therapy/degrees-programs/entry-ms-programs.html>)

Program Description

The MS in Occupational Therapy (MSOT) in Center City is a program for students who have earned a bachelor's degree in a field other than occupational therapy. The curriculum follows a traditional weekday format. The MSOT-CC program is completed in 2 years, including fieldwork.

Curriculum 2 Years, 82 Credits

- Center City Curriculum

| Course | Title | Credits |
|--------------------|------------------------------|-----------|
| First Year | | |
| Fall | | |
| OT 302 | Course OT 302 Not Found | 4 |
| OT 311 | Course OT 311 Not Found | 4 |
| OT 321 | Course OT 321 Not Found | 2 |
| OT 336 | Course OT 336 Not Found | 5 |
| OT 340 | Course OT 340 Not Found | 2 |
| OT 600 | OT Professional Seminar | 1 |
| Credits | | 18 |
| Spring | | |
| OT 308 | Course OT 308 Not Found | 4 |
| OT 322 | Course OT 322 Not Found | 2 |
| OT 357 | Course OT 357 Not Found | 4 |
| OT 560 | Environmental Competence | 3 |
| OT 561 | Environmental Competence Lab | 1 |
| OT 562 | Environmental Comp in Action | 1 |
| OT 577 | Histor Analysis-Theory | 3 |
| Credits | | 18 |
| Summer | | |
| OT 341 | Course OT 341 Not Found | 2 |
| OT 467 | Course OT 467 Not Found | 2 |
| OT 603 | Research Design | 4 |
| Credits | | 8 |
| Second Year | | |
| Fall | | |
| OT 440 | Course OT 440 Not Found | 2 |
| OT 441 | Course OT 441 Not Found | 2 |

| Course | Title | Credits |
|--|----------------------------|-----------|
| OT 552 | Course OT 552 Not Found | 5 |
| OT 558 | Course OT 558 Not Found | 3 |
| Graduate Elective or Independent Study | | 3 |
| Credits | | 15 |
| Spring | | |
| OT 480 | Course OT 480 Not Found | 6 |
| OT 578 | Evidence-Based Practice I | 1 |
| Credits | | 7 |
| Summer | | |
| OT 482 | Course OT 482 Not Found | 6 |
| OT 579 | Evidence Based Practice II | 1 |
| OT 627 | Program Design/Evaluat | 3 |
| OT 670 | MS Research Project | 3 |
| OT 682 | Clinical Leadership | 3 |
| Credits | | 16 |
| Total Credits | | 82 |

Occupational Therapy- East Falls (BS/MSOT)

Contacts

Program Director: Catherine Verrier Piersol, PhD, OTR/L, FAOTA

Email: Catherine.Piersol@jefferson.edu

215-503-9509

Program Director: Audrey L. Zapletal, OTD, OTR/L, CLA

Email: Audrey.Zapletal@jefferson.edu

215-951-2532

Campus: East Falls

Program Description

The BS/MSOT Program in East Falls is for high school students who are committed to becoming an Occupational Therapist. The first three years of the undergraduate experience is known as the pre-professional phase. During this period, the major requirements for the BS degree and OT program prerequisites are completed.

Students who meet the admission criteria matriculate into the MSOT program. The professional phase begins in the fourth year of undergraduate studies and is delivered in a hybrid online/in-person format.

Year 1 (4th Year)

- September-April, Fall & Spring coursework
- May-June, Summer coursework

Year 2 (5th Year)

- September-April, Fall & Spring coursework
- May-June, Summer coursework

2.5 Track A

- July-September, Fieldwork A
- October-December, Fieldwork B

2.5 Track A

- October-December, Fieldwork A
- January-March, Fieldwork B

Curriculum: 83 Credit

| Course | Title | Credits |
|----------------------|---------------------------------------|-----------|
| First Year | | |
| Fall | | |
| OCC 610 | Evolving Professional Seminar | 1 |
| OCC 611 | Foundations for Practice | 3 |
| OCC 613 | Functional Anatomy | 4 |
| OCC 621 | Occupational Competence | 3 |
| OCC 625 | Clinical Skills A | 1 |
| Credits | | 12 |
| Spring | | |
| OCC 616 | Assistive Tech. Design | 2 |
| OCC 623 | Applied Neuroanatomy | 4 |
| OCC 628 | Intro to Evaluation | 2 |
| OCC 635 | Clinical Skills B | 2 |
| OCC 741 | Interpersonal Relations&Groups | 3 |
| Credits | | 13 |
| Summer | | |
| OCC 626 | Evidence Based Practice | 3 |
| OCC 735 | Level I Fieldwork A | 1 |
| OCC 746 | Psychosocial Interventions | 4 |
| OCC 766 | Older Adults:Enabling Partic | 2 |
| Credits | | 10 |
| Second Year | | |
| Fall | | |
| OCC 745 | Level I Fieldwork B | 1 |
| OCC 748 | Asses. & Intervention: Adults | 5 |
| OCC 749 | Children and Youth A | 3 |
| OCC 754 | Envir Dimensions of Occupation | 3 |
| Credits | | 12 |
| Spring | | |
| OCC 751 | Professional Issues and Trends | 3 |
| OCC 755 | Level I fieldwork C | 1 |
| OCC 757 | Innovative Prac in Oc Therapy | 3 |
| OCC 759 | Children and Youth B | 3 |
| OCC 767 | Critical Inquiry I | 2 |
| Credits | | 12 |
| Summer | | |
| OCC 764 | Spec Prac: Upper Extr Rehab | 2 |
| OCC 769 | Critical Inquiry II | 2 |
| OCC 784 | Mastery | 2 |
| Year 2.5 | | |
| OCC 778 | Level II Fieldwork A (Summer or Fall) | 6 |
| OCC 779 | Level II Fieldwork B (Fall or Spring) | 6 |
| Credits | | 18 |
| Total Credits | | 77 |

Occupational Therapy-East Falls (MSOT)

Contacts

Program Director: Catherine Verrier Piersol, PhD, OTR/L, FAOTA

Email: Catherine.Piersol@jefferson.edu

215-503-9509

Program Director: Audrey L. Zapletal, OTD, OTR/L, CLA

Email: Audrey.Zapletal@jefferson.edu

215-951-2532

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/rehabilitation-sciences/departments/occupational-therapy/degrees-programs/ms-programs-east-falls.html>)

Program Description

The MS in Occupational Therapy (MSOT) in East Falls is a program for students who have completed a bachelor's degree in any academic discipline. The curriculum follows a blended-learning format that includes an intensive weekend delivery.

Students attend on-campus class meetings eight weekends/semester (Friday and Saturday, generally every other weekend). Between on-campus sessions, students engage through distance education technology. The MSOT-EF program is completed in 2.5 years, including fieldwork.

Curriculum: 2.5 Years, 74 Credits

- East Falls Curriculum

| Course | Title | Credits |
|--|-----------------------------------|-----------|
| First Year | | |
| Fall | | |
| OCC 610 | Evolving Professional Seminar | 1 |
| OCC 611 | Foundations for Practice | 3 |
| OCC 613 | Functional Anatomy | 4 |
| OCC 621 | Occupational Competence | 3 |
| OCC 625 | Clinical Skills A | 1 |
| Credits | | 12 |
| Spring | | |
| OCC 616 | Assistive Tech. Design | 2 |
| OCC 628 | Intro to Evaluation | 1 |
| OCC 623 | Applied Neuroanatomy | 4 |
| OCC 635 | Clinical Skills B | 1 |
| OCC 741 | Interpersonal Relations&Groups | 3 |
| OCC 645 | Clinical Skills C | 1 |
| Credits | | 12 |
| Summer | | |
| OCC 626 | Evidence Based Practice | 3 |
| OCC 766 | Older Adults:Enabling Partic | 2 |
| OCC 746 | Psychosocial Interventions | 4 |
| OCC 735 | Level I Fieldwork A | 1 |
| Year 1 Summer | | |
| Classes conducted in 6-week intensive schedule including Thursdays | | |
| OCC 769 | Critical Inquiry II | 1 |
| OCC 764 | Spec Prac: Upper Extr Rehab | 2 |
| OCC 784 | Mastery | 1 |
| Credits | | 14 |
| Second Year | | |
| Fall | | |
| OCC 748 | Asses. & Intervention: Adults | 5 |
| OCC 745 | Level I Fieldwork B (32-40 hour) | 1 |
| OCC 749 | Children and Youth A | 3 |
| OCC 754 | Envir Dimensions of Occupation | 3 |
| Credits | | 12 |
| Spring | | |
| OCC 759 | Children and Youth B | 3 |
| OCC 755 | Level I fieldwork C (32-40 hours) | 1 |
| OCC 767 | Critical Inquiry I | 2 |
| OCC 751 | Professional Issues and Trends | 3 |

| Course | Title | Credits |
|----------------------|-------------------------------|-----------|
| OCC 757 | Innovative Prac in Oc Therapy | 3 |
| Credits | | 12 |
| Total Credits | | 62 |

Clinical Fieldwork Rotations

- Two, 12-week Full-Time

| Code | Title | Credits |
|-------------------------------------|-------|---------|
| Select one of the following tracks: | | 11-12 |

| Track A July-December | | |
|-----------------------|----------------------|--|
| OCC 778 | Level II Fieldwork A | |
| OCC 779 | Level II Fieldwork B | |

| Track B September - March | | |
|---------------------------|----------------------|--|
| OCC 778 | Level II Fieldwork A | |
| OCC 779 | Level II Fieldwork B | |

Physical Therapy (DPT)

Contacts

Program Director: Justine Dee, PT, MS, PhD

Email: Justine.dee@jefferson.edu
215-503-6033

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/rehabilitation-sciences/departments/physical-therapy/doctor-of-physical-therapy.html>)

Program Description

The Doctor of Physical Therapy (DPT) Program is a 3-year (10 semester) full-time program. The curriculum is built on a strong basic science foundation with emphasis on evidence-based physical therapy practice, and integrated part-time experiential learning activities and 36 weeks of full-time clinical education.

- Graduates are prepared to examine and treat musculoskeletal and neuromuscular problems and develop injury prevention & health maintenance programs for people at all stages of life.
- Graduates are prepared to apply scientific knowledge, humanistic values, critical analysis and a systematic approach to patient care when making clinical decisions.

Learning Outcomes

- Graduates apply the best evidence in reflective decision-making, skilled performance and professional behavior to basic principles within patient-client management to achieve optimal outcomes.
- Graduates participate in interprofessional, patient centered care to meet patient’s diverse needs and perspectives.
- Graduates pursue professional development opportunities throughout their professional career.
- Graduates engage in leadership and advocacy roles in a diverse patient and professional environment.

Curriculum: 3 Years, 121 Credits

| Course | Title | Credits |
|-------------------|--------------------------------|---------|
| First Year | | |
| Pre-Fall | | |
| PT 507 | Advanced Human Anatomy for PTs | 6 |

| Course | Title | Credits |
|----------------------|--|------------|
| PT 534 | Intro to the PT Profession | 1 |
| PT 536 | Medical Terminology (online) | 1 |
| PT 527 | Evidence Based Practice I | 3 |
| Credits | | 11 |
| Fall | | |
| PT 516 | Neuroscience | 3 |
| PT 506 | Biomechanics and Kinesiology | 4 |
| PT 533 | Intro to PT Examination | 5 |
| PT 539 | Clinical Decision Making | 1 |
| PT 538 | Psychosocial Aspects of PT | 2 |
| PT 545 | Integrated Clin Exp I | 1 |
| Credits | | 16 |
| Spring | | |
| PT 513 | Pathophysiology I | 3 |
| PT 624 | Evidence Based Practice II | 2 |
| PT 546 | Integrated Clin Exp II (ICE) | 1 |
| PT 518 | Movement System in PT | 2 |
| PT 555 | Intro to Therapeutic Interven | 6 |
| Credits | | 14 |
| Second Year | | |
| Pre-Fall | | |
| PT 514 | Pathophysiology II | 3 |
| PT 607 | Musculoskeletal PT I | 4 |
| PT 611 | Cardiovasc & Pulm PT I | 2 |
| PT 613 | Pharmacology | 2 |
| PT 661 | Integumentary PT | 3 |
| Credits | | 14 |
| Fall | | |
| PT 608 | Musculoskeletal PT II | 4 |
| PT 612 | Cardiovasc & Pulm PT II | 3 |
| PT 621 | Neuromuscular PT I | 5 |
| PT 645 | Integrated Clin Exp III (ICE; 1/2 class) | 1 |
| PT 670 | Prosthetics and Orthotics | 3 |
| PT 680 | FT Clin Ed Experience Prep | 1 |
| Credits | | 17 |
| Spring | | |
| Spring A | | |
| PT 685 | FT Clin Ed Experience I | 6 |
| Spring B | | |
| PT 609 | Musculoskeletal PT III | 4 |
| PT 622 | Neuromuscular PT II | 4 |
| PT 645 | Integrated Clin Exp III | 1 |
| Credits | | 15 |
| Third Year | | |
| Pre-Fall | | |
| PT 785 | FT Clin Ed Experience II | 9 |
| Credits | | 9 |
| Fall | | |
| PT 632 | Healthcare Delivery Systems | 3 |
| PT 674 | Pediatric PT | 3 |
| PT 700 | Med Screen & Diff Diagno in PT | 2 |
| PT 736 | Business and Leadership in PT | 3 |
| PT 721 | Evidence Based Practice III | 2 |
| PT 774 | Geriatric PT | 3 |
| Credits | | 16 |
| Spring | | |
| PT 786 | FT Clin Ed Experience III | 12 |
| Credits | | 12 |
| Total Credits | | 124 |

Speech-Language Pathology (MS-SLP)

Contacts

Program Director: Patricia A. Remshifski PhD, CCC-SLP

Email: Patricia.Remshifski@jefferson.edu

215-503-7992

Campus: Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/rehabilitation-sciences/departments/speech-language-pathology/speech-language-pathology-ms-slp.html>)

Program Description

The Master of Science in Speech-Language Pathology (MS-SLP) program is a two-year, 60-credit, program designed to provide diverse academic and clinical experiences in communication sciences and disorders to ensure that graduates have the competencies to excel as independent clinicians and as members of collaborative clinical teams.

• Cohort: Fall 2023

| Course | Title | Credits |
|--------------------|--------------------------------|-----------|
| First Year | | |
| Fall | | |
| SLP 610 | Lang Disord of Early Childhood | 3 |
| SLP 611 | Neural Bases of Communication | 1 |
| SLP 612 | Spch Sound Disord in Children | 3 |
| SLP 613 | Aphasia&Other Acq Neur Lan Dis | 3 |
| SLP 614 | Clinical Methods in SLP | 3 |
| SLP 618 | Diag&Mgmt of Dysphagia in Adlt | 3 |
| SLP 605 | Seminar I: Interprof Education | 1 |
| Credits | | 17 |
| Spring | | |
| SLP 601 | Clinical Practicum I | 1 |
| SLP 622 | Cognitive Communication Disord | 3 |
| SLP 617 | Lang Disord/Late Child & Adol | 3 |
| SLP 615 | Ped Feed/Swallow Dev & Disord | 3 |
| SLP 619 | Disorders of Voice & Resonance | 3 |
| SLP 606 | SemII:ClinPrac/EarlyInt&EduSet | 1 |
| Credits | | 14 |
| Summer | | |
| SLP 602 | Clinical Practicum II | 2 |
| SLP 620 | Motor Speech Disorders | 3 |
| SLP 607 | Sem III:Clin Prac/Medical Stgs | 1 |
| SLP 621 | Adv Audiology & Aural Rehab | 2 |
| SLP 608 | Sem IV:Evidence Based Practice | 1 |
| Credits | | 9 |
| Second Year | | |
| Fall | | |
| SLP 603 | Clinical Practicum | 3 |
| SLP 616 | Research Methods in SLP | 3 |
| SLP 624 | Augmentative & Alternative Com | 2 |
| SLP 627 | Advanced Topics in SLP | 3 |
| Credits | | 11 |
| Spring | | |
| SLP 604 | Clinical Practicum II | 6 |
| SLP 623 | Fluency | 2 |

| Course | Title | Credits |
|----------------------|--|-----------|
| SLP 609 | Seminar V: Professional Issues (Pass/fail) | 1 |
| Credits | | 9 |
| Total Credits | | 60 |

Curriculum: 2 Years, 60 Credits

• Cohort: Fall 2022

| Course | Title | Credits |
|----------------------|---|-----------|
| First Year | | |
| Fall | | |
| SLP 610 | Lang Disord of Early Childhood | 3 |
| SLP 611 | Neural Bases of Communication | 1 |
| SLP 612 | Spch Sound Disord in Children | 3 |
| SLP 613 | Aphasia&Other Acq Neur Lan Dis | 3 |
| SLP 614 | Clinical Methods in SLP | 3 |
| SLP 615 | Ped Feed/Swallow Dev & Disord | 3 |
| SLP 605 | Seminar I: Interprof Education | 1 |
| Credits | | 17 |
| Spring | | |
| SLP 601 | Clinical Practicum I | 2 |
| SLP 616 | Research Methods in SLP | 3 |
| SLP 617 | Lang Disord/Late Child & Adol | 3 |
| SLP 618 | Diag&Mgmt of Dysphagia in Adlt | 3 |
| SLP 619 | Disorders of Voice & Resonance | 3 |
| SLP 606 | SemII:ClinPrac/EarlyInt&EduSet | 1 |
| Credits | | 15 |
| Summer | | |
| SLP 602 | Clinical Practicum II (continues through Summer 1 and Summer 2) | 2 |
| Summer I | | |
| SLP 620 | Motor Speech Disorders | 3 |
| SLP 607 | Sem III:Clin Prac/Medical Stgs | 1 |
| Summer 2 | | |
| SLP 621 | Adv Audiology & Aural Rehab | 2 |
| SLP 608 | Sem IV:Evidence Based Practice | 1 |
| Credits | | 9 |
| Second Year | | |
| Fall | | |
| SLP 603 | Clinical Practicum | 2 |
| SLP 622 | Cognitive Communication Disord | 3 |
| SLP 623 | Fluency | 3 |
| SLP 624 | Augmentative & Alternative Com | 2 |
| Credits | | 10 |
| Spring | | |
| SLP 604 | Clinical Practicum II | 5 |
| SLP 625 | Genetics | 3 |
| SLP 609 | Seminar V: Professional Issues | 1 |
| SLP 626 | Capstone Portfolio (Pass/Fail) | 0 |
| Credits | | 9 |
| Total Credits | | 60 |

Teaching in the Digital Age (Advanced-Practice Certificate)

Contacts

Program Director: Susan E. Toth-Cohen, PhD, OTR/L

Email: Susan.Toth-Cohen@jefferson.edu

Program Director: Alison Bell, OTD, OTR/L

Email: Alison.Bell@Jefferson.edu

Campus: Online

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/rehabilitation-sciences/departments/occupational-therapy/degrees-programs/advanced-practice-certificates/teaching.html>)

Program Description

As the need for occupational therapists increases, so does the demand for qualified OT educators to prepare the future workforce.

- Four graduate-level courses (a total of 12 credits)
- Certificate can be completed in 16 months
- All courses are 100% online
- Courses can interface with a variety of master’s and doctoral programs including Jefferson’s PP-OTD Program (<https://www.jefferson.edu/academics/colleges-schools-institutes/rehabilitation-sciences/departments/occupational-therapy/degrees-programs/post-professional.html>)
- Courses are available both as a Certificate or as individual courses for degree and non-degree students

Curriculum: 16 Months, 12 Credits

| Code | Title | Credits |
|------------------------|---|-----------|
| Core Curriculum | | |
| OT 782 | Leadership: Moving Beyond Trad (Spring) | 3 |
| OT 783 | Bridging the Gaps (Summer) | 3 |
| OT 784 | Teaching in the Digital Age (Fall) | 3 |
| OT 785 | Advanced Curriculum Developmnt (Fall) | 3 |
| Total Credits | | 12 |

Continuing & Professional Studies (CPS)

About Us

Jefferson’s Continuing and Professional Studies is uniquely prepared to help you attain a degree or certificate of choice. Organizational leaders and consultants, business professionals, healthcare professionals, human resource managers, IT managers, medical office managers, medical coders, paramedics, firefighters, and occupational therapy assistants are just some of the positions our students aspire to or currently hold.

With an eye towards accessibility, we offer convenient locations, accelerated 8-week courses, flexible class times (evening and Saturday), and online and hybrid course options. Our flexible approach, coupled with our personalized advising model, meets each student where they are and empowers them to attain their academic goals.

Locations

- Jefferson Center City, 901 Walnut Street, Philadelphia, PA
- Jefferson East Falls, 4201 Henry Avenue, Philadelphia, PA
- Jefferson Online, online.jefferson.edu (<http://online.jefferson.edu>)

Educational Programs Offered

- **Accelerated Programs:** Certificate, associate’s, bachelor’s, master’s, and doctoral programs

- **Corporate Training:** Assist a range of enterprises, from large corporations to small businesses, creating specific skills and training programs to bring employees up-to-speed in various skill areas.
- **Non-Degree Courses:** Students interested in taking individual courses or completing prerequisites can register as a non-degree student. Credits earned are transferrable to appropriate degree programs.
- **Professional Development Certificates:** Short courses and certificate programs to provide up-to-date training, hands-on experience, and tools that will keep you at the forefront of your field, or help you explore a new interest.

Academic Programs Undergraduate

- Behavioral and Health Services (p. 67) (BS)
- Business Management (p. 201) (BS)
- Health & Human Services (p. 81) (AS)
- Health Services (p. 82) (BS)
- Health Services Management (p. 95) (BS)
- Health Sciences (p. 82) (BS)
- Health Studies (p. 96) (BS)
- Human Resource Management (p. 206) (BS)
- Information Technology (p. 207) (BS)
- Organizational Leadership (p. 212) (BS)

Graduate

- Strategic Leadership (p. 214) (Doctorate)

Certificate

- Healthcare Information Systems (<https://catalog.jefferson.edu/colleges-schools/college-health-professions-jchp/healthcare-information-systems-certificate/>) (Undergraduate)
- Medical Coding and Data Quality (p. 103) (Undergraduate)
- Medical Practice Management (p. 103) (Undergraduate) (p. 215)

Creativity & Leadership Core

Each CPS bachelor’s degree curriculum includes a Creativity and Leadership Core, which is designed to help students to think creatively and lead in life, work, and the community. Many of us believe that creativity is for people in the arts and that leadership is for people with certain job titles. The truth is creative thinking can be enhanced and tools and techniques in creativity can be learned. Similarly, leadership can be practiced at any level of an organization and in any setting, including your family and your community. Modern employers are seeking well-rounded employees who demonstrate creativity and leadership, serving as conduits of positive change. The Creativity and Leadership Core, which aligns with the University’s Creativity Core, is comprised of five courses:

| Code | Title | Credits |
|-------------|--------------------------------|---------|
| CLC 310 | Creativity Fnds & Applications | 3 |
| or CLCX 310 | Creativity Fnds & Applications | |

| Code | Title | Credits |
|------------------------|-------------------------------|-----------|
| CLC 330 or CLCX 330 | Project Management | 3 |
| CLC 340 or CLCX 340 | Leading Diverse Organizations | 3 |
| CLC 350 or CLCX 350 | Creative Leadership | 3 |
| CLC 360 or CLCX 360 | Leadership in the Digital Age | 3 |
| Total Credits | | 15 |

Kanbar College of Design, Engineering & Commerce (KANBAR)

Dean: Ron Kander, PhD | 215- 951-2740
College Website (<https://jefferson.edu/Kanbar/>)

About Us

Kanbar College offers an innovative and transdisciplinary approach to teaching and learning that provides students with the skills and knowledge to think creatively, brainstorm out-of-the-box ideas and work collaboratively to discover innovative solutions to complex problems.

Through the integrated DEC core curriculum, students gain the added value of expertise in related fields as well as deep discipline-specific knowledge. The program retains the core learning of each major while forging new collaborations between designers, engineers and entrepreneurs. By learning in a transdisciplinary environment, students go on to be better, more effective leaders in their professions.

When the critical-thinking and creativity skills of the designer combine with the analysis and problem-solving skills of the engineer and the planning and project-management skills of the business professional, they synthesize to form a suite of expertise that makes our students uniquely qualified to address today's real-world problems.

By bringing together design, engineering and business disciplines, Kanbar College pushes students to think beyond the boundaries of existing academic fields and focus on innovation through teamwork, collaboration and connections with industry partners while it emphasizes critical thinking and real-world problem-solving skills.

This pioneering curriculum prepares students to adapt to changes in their professions, collaborate with colleagues in other fields, and excel in jobs that exist today as well as ones that will emerge tomorrow. Students gain the knowledge and skills necessary to succeed in the 21st century workplace through real-world experience working on industry-sponsored projects.

Kanbar DEC Curriculum

The Kanbar College-wide curriculum offers intensive transdisciplinary skills development with the opportunity to practice and apply those skills in the context of students' own discipline. It includes three core courses: Finding and Shaping Opportunity, Systems Thinking and Sustainability, and Research Methods, that culminate in a fourth, integrated senior capstone project. Each course fosters collaboration among designers, engineers, and business majors giving students a breadth of expertise

that goes beyond the boundaries of a traditional degree. This approach aggressively addresses changes in the 21st-century work world, where a sophisticated interdisciplinary understanding makes young professionals more effective in their own field of expertise, and enhances their ability to lead and succeed.

Finding and Shaping Opportunity

- This course introduces principles of design thinking as a key element of innovation. Students will learn how parts of traditional design process can be used to reveal opportunity, and how to shape that opportunity by critically and creatively evaluating its components as part of a larger system. As a culminating assignment, students will work collaboratively with peers from other disciplines to create real-world value in an economic, social, and environmental context by innovating a new model for business that is both desirable and viable. This course is designated as creativity intensive.

Systems Thinking and Sustainability

- The field of sustainability will be surveyed using the lens of Systems Thinking. Students will be introduced to the rate and scale of environmental impacts resulting from climate change, our industrial food system, and waste accumulation in linear models of production, with case studies considered from multiple perspectives and disciplines. Students will develop systems models to identify key feedbacks and interactions among factors. A final team-based inquiry-driven project will involve analysis of a focal area of choice, to characterize sustainability challenges and opportunities for focused interventions, with consideration of social equity dimensions and model limitations.

Research Methods

- This writing intensive course explores a range of research tools to analyze human belief, behavior, and cultural practices, and the systems which they drive and are affected by to inform planning and critical inquiry. Students will learn to formulate appropriate research strategies and questions for conducting quantitative and qualitative research to explore a variety of approaches that address contemporary issues around all aspects of sustainability (economic, social, environmental, technical). Students will consider ethical, empathetic, and contextual sensitivities at all stages of the research process, from planning through to analysis and interpretation. They will convey their findings through multi-modal means of communication as appropriate to the content and purpose of their research.

Academic Programs

Undergraduate

- Accounting (BS) (p. 200)
- Animation & Digital Media (BS) (p. 216)
- Engineering (BSE) (p. 217)
- Fashion Design (BS) (p. 219)
- Fashion Merchandising & Management (BS) (p. 203)
- Finance (BS) (p. 204)
- Industrial Design (BS) (p. 221)
- International Business (BS) (p. 208)
- Management (BS) (p. 208)
- Marketing (BS) (p. 209)
- Mechanical Engineering (BS) (p. 223)

- Textile Design (BS) (p. 224)
- Textile Product Science (BS) (p. 227)
- Visual Communication Design (BS) (p. 229)

Graduate

- Advanced Biotherapeutics Manufacturing & Regulatory Affairs (MS) (p. 196)
- Biologics Process Engineering (PhD) (p. 197)
- Biopharmaceutical Process Engineering (MS) (p. 198)
- Engineering: Textile Concentration (MS) (p. 218)
- Fashion Merchandising and Management (MS) (p. 204)
- Global Textile Design (MS/MSc) (p. 220)
- Health Communication Design (MS) (p. 220)
- Industrial Design (MS) (p. 222)
- International Fashion Design Management (MS) (p. 222)
- MBA (Business Administration) (p. 210)
- Taxation (MS) (p. 215)
- Textile Design (MS) (p. 225)
- Textile Engineering & Sciences (PhD) (p. 226)
- Textile Technology (MS) (p. 228)
- User Experience & Interaction Design (MS) (p. 228)

Certificate

- Biopharmaceutical Process Development (Graduate Certificate) (p. 198)
- Brand Management (Graduate Certificate) (p. 217)
- Surface Imaging (Advanced-Practice Certificate) (p. 224)

Accelerated/Dual Degree

- Textile Design- Accelerated (BS/MS) (p. 226)

University Accreditations (<https://www.jefferson.edu/about/consumer-information-disclosures.html>)

Jefferson Institute for Bioprocessing

Director of Curriculum Development: Geoff Toner, MS, MBA
<https://www.jefferson.edu/jib> Website (<https://www.jefferson.edu/jib/>)

About Us

The Jefferson Institute for Bioprocessing (JIB) is a highly specialized education and training center that utilizes commercial-scale, single-use bioprocessing equipment to train and educate the next generation of biopharmaceutical process engineers and scientists.

Biopharmaceutical processing is a rapidly growing industry focused on the development of robust processes to manufacture high-value biologics and advanced therapeutics for patients with debilitating and life-limiting diseases that affect millions of patients worldwide, such as cancer, rheumatoid arthritis, Alzheimer's and Parkinson's.

The focus of JIB is the hands-on training of industry professionals through workshops and certificates and laboratory-intensive education of new bioprocessing engineers at the undergraduate and graduate levels.

We understand the critical need to rapidly develop and advance the skills and knowledge of scientists, engineers and technicians in bioprocessing, biomanufacturing, analytical methods and regulatory requirements.

Our Facilities

The Jefferson Institute for Bioprocessing (JIB) is a 25,000 sq. ft. state-of-the-art facility designed for the training of industry professionals, as well as the education of the next generation of scientists and engineers interested in pursuing rewarding careers in biomanufacturing.

Academic Programs

- Advanced Biotherapeutics Manufacturing & Regulatory Affairs (p. 196) (MS)
- Biologics Process Engineering (p. 197) (PhD)
- Biopharmaceutical Process Development (p. 198) (Graduate Certificate)
- Biopharmaceutical Process Engineering (p. 198) (MS)

Advanced Biotherapeutics Manufacturing & Regulatory Affairs (MS)

Contacts

Program Director: Geoff Toner, MS
Email: Geoffrey.Toner@jefferson.edu
267-405-9505

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/kanbar-college-of-design-engineering-commerce/research-and-innovation/institute-for-bioprocessing/academic-programs/ms-advanced-biotherapeutics-manufacturing-regulatory-affairs.html>)

Program Description

Thomas Jefferson University, in collaboration with Temple University School of Pharmacy, proudly announces the launch of the new Master of Science (MS) in Advanced Biotherapeutics: Manufacturing & Regulatory Affairs (ABMRA) degree program in the Fall 2022 semester.

While global pharmaceutical companies continue to discover new small-molecule therapeutic agents, an important paradigm shift to large-molecule biopharmaceutical products, as well as individualized medicines (advanced biotherapeutics) has been made possible due to new advances in the biotechnology and bioprocessing communities.

Originally focused on protein replacement and monoclonal antibody-based therapies, the profoundly rapid development and production of new therapeutics like cell and gene therapies (CGT) and COVID-19 vaccines based on messenger-RNA technology has further expanded the market and the need for a skilled and trained workforce. This expansion affects every aspect of drug development, including manufacturing techniques, analytical methods and regulatory processes.

As this is a highly specialized industry, starting salaries are approximately \$90,000.

The MS in Advanced Biotherapeutics: Manufacturing & Regulatory Affairs program has been established to address the shortage of individuals trained in regulatory affairs and the manufacturing process of biotherapeutic agents.

Curriculum: 2 Years; 30 Credits

| Code | Title | Credits |
|---|--|---------|
| Thomas Jefferson University Curriculum | | |
| ENGR 609 | Bioprocess Engineering for Sci | 3 |
| ENGR 621 | Intro Biopharm & Biologics Prod | 3 |
| ENGR 611 | Princ BioPharm Proc Engineerin | 3 |
| ENGR 604 | Biopharm Process Ops | 3 |
| Select at least one of the following: | | 1.5-3 |
| ENGR 601 | Intro Upstream Unit Operations | |
| ENGR 602 | Intro Downstream Unit Ops | |
| EMGR 613 | Course EMGR 613 Not Found | |
| ENGR 622 | Bio-Therapeutic Formulation | |
| ENGR 614 | Vaccine Formulation | |
| ENGR 618 | Tech & Regulatory Aspects | |
| ENGR 612 | Emerging Therapeutics | |
| Temple University Curriculum | | |
| 5459 | Drug Development | 3 |
| 5515 | Biologics / Biosimilars: A Regulatory Overview | 3 |
| 5575 | Global CMCs - Biologics | 3 |
| 5572 | Vaccines: RA and QA Aspects | 3 |
| Select at least one of the following: | | 3 |
| 5471 | Biotechnology: Bioprocess Basic | |
| 8005 | Pharmaceutical Biotechnology | |
| 5451 | Statistical Quality Control | |
| 5468 | Validation of FUE (Facilities, Utilities and Equipment) | |
| 5474 | Process Validation | |
| 5479 | Advanced Good Manufacturing Practices - Defining "c" | |
| 5492 | Production of Sterile Products | |
| 5493 | Sterilization Processes | |
| 5501 | Development of Sterile Products | |
| 5512 | Microbiological Concepts in Pharmaceutical Manufacturing | |
| 5514 | Regulatory eSubmissions | |
| 5516 | Cleaning Validation | |
| 5538 | Clinical Drug Safety and Pharmacovigilance | |
| 5444 | Regulatory Intelligence | |
| 5571 | Post-Marketing Safety Surveillance | |
| 5574 | Quality Systems Management | |
| 5575 | Regulatory Sciences: Managing the Guidelines for Quality | |
| 5625 | Process Analytical Technology (PAT) | |
| 56 | Statistical Design of Experiments (DOE) | |

| Code | Title | Credits |
|----------------------|--------------------|----------------|
| 5629 | Process Monitoring | |
| Total Credits | | 28.5-30 |

Biologics Process Engineering (PhD)

Contacts

Program Director: Parviz Shamlou, PhD

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/kanbar-college-of-design-engineering-commerce/research-and-innovation/institute-for-bioprocessing/academic-programs/phd-in-biologics-process-engineering.html>)

Program Description

- **STEM designated program**

This primary goal of the industry-sponsored program is to meet the career aspirations of qualified students and professionals who wish to develop their practical and foundational skills in the new and emerging areas of biopharmaceutical and biological engineering and bioprocessing. The Ph.D. program will produce well-trained and well-educated individuals who can meet the rising technical and regulatory demands for manufacturing of safe and efficacious medicine including legacy biologics such as vaccines, proteins and monoclonal antibodies, as well as advanced, next-generation biologics such as gene therapy, tissue engineering and regenerative medicine.

Learning Goals/Outcomes

- Create independent research leading to new knowledge in a specialized area relevant to processing and commercialization of biologics.
- Support advanced skills through design of new equipment and technologies, setting up and conducting novel experiments, gathering and analysis of qualitative and quantitative data.
- Defend results and data through effective written and oral communication and presentation.
- Synthesize interactive, multidisciplinary, collaborative experiences through reflection on learning, work and instruction.
- Evaluate decisions based on ethical principles in research, development and professional activities.

Curriculum: 3 Years, 54 Credits

For students matriculating in the PhD in Biologics Process Engineering program with no graduate background in Bioprocessing, a group of foundation courses may be required. The foundation courses will be determined at the time of admission by the program director.

| Course | Title | Credits |
|--------------------|-----------------------|-----------|
| First Year | | |
| ENGR 801 | Doctoral Research II | 6 |
| ENGR 802 | Doctoral Research III | 6 |
| ENGR 803 | Doctoral Research IV | 6 |
| Credits | | 18 |
| Second Year | | |
| ENGR 804 | Doctoral Research V | 4 |
| ENGR 805 | Doctoral Research VI | 2 |

| Course | Title | Credits |
|----------------------|---------------------------|-----------|
| ENGR 806 | Course ENGR 806 Not Found | 4 |
| ENGR 807 | Course ENGR 807 Not Found | 2 |
| ENGR 808 | Course ENGR 808 Not Found | 4 |
| ENGR 809 | Course ENGR 809 Not Found | 2 |
| Credits | | 18 |
| Third Year | | |
| ENGR 810 | Course ENGR 810 Not Found | 4 |
| ENGR 811 | Course ENGR 811 Not Found | 2 |
| ENGR 812 | Course ENGR 812 Not Found | 4 |
| ENGR 813 | Course ENGR 813 Not Found | 2 |
| ENGR 814 | Course ENGR 814 Not Found | 4 |
| ENGR 815 | Course ENGR 815 Not Found | 2 |
| Credits | | 18 |
| Total Credits | | 54 |

Biopharmaceutical Process Development (Graduate Certificate)

Contacts

Program Director: Geoff Toner, MS

Email: Geoffrey.Toner@jefferson.edu
267-405-9505

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/kanbar-college-of-design-engineering-commerce/research-and-innovation/institute-for-bioprocessing/academic-programs/certificate-in-biopharmaceutical-process-development.html>)

Program Description

- **STEM designated program**

The 12-credit Graduate Certificate in Biopharmaceutical Process Development curriculum is designed to credibly prepare students who have already earned a Bachelor's Degree in Engineering or Life Sciences for a variety of technical jobs in biomanufacturing. The curriculum is interdisciplinary and emphasizes inquiry, laboratory- and pilot-plant scale-based learning, and team building. We see the BPD Certificate as strongly allied to Jefferson's core mission of educating scientists and engineers for fruitful careers in biomanufacturing. A primary learning outcome of the BPD Certificate is to provide students with the basic professional skills to operate effectively in technical entry level roles in biomanufacturing.

Students also gain an understanding of the regulatory environment in which biomanufacturing operates, and the Certificate prides itself on the team-based projects that pervade the curriculum with a focus on communication and team-work skills.

The 12-credit BPD Certificate is intended to bridge the gap between traditional undergraduate courses in life sciences and engineering and the skills required for a successful career in 21st century biopharmaceutical industries. Students will gain the basic skills needed for entry level positions in biomanufacturing.

Curriculum: 12 Credits

| Code | Title | Credits |
|----------------------|--------------------------------|-----------|
| BP 601 | Bas Engineering for Scientists | 2 |
| or BP 602 | Bas Biochem & Bio for Engineer | |
| BP 603 | Intro to Biopharm Processing | 2 |
| BP 605 | Intro to Upstream Unit Oper | 4 |
| BP 604 | Intro to Downstream Unit Oper | 4 |
| Total Credits | | 12 |

Biopharmaceutical Process Engineering (MS)

Contacts

Program Director: Geoff Toner, MS

Email: Geoffrey.Toner@jefferson.edu
267-405-9505

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/kanbar-college-of-design-engineering-commerce/school-of-design-engineering/academic-programs/ms-biopharmaceutical-process-engineering.html>)

Program Description

- **STEM designated program**

The transformational (12 months) 36-credit Master's Degree Program in Biopharmaceutical Process Engineering is delivered at the Jefferson Institute for Bioprocessing (JIB) and is ideal for employment focused graduates with first degrees in Life Sciences and Engineering.

The Jefferson Institute for Bioprocessing (JIB) is a 25,000 sq. ft. state-of-the-art facility designed for the training of industry professionals, as well as the education of the next generation of scientists and engineers interested in pursuing rewarding careers in biomanufacturing. Biopharmaceutical Processing is a rapidly growing industry focused on the development of robust processes to manufacture high value biologics and advanced therapeutics for patients with debilitating and life limiting diseases that affect millions of patients worldwide, such as cancer, rheumatoid arthritis, Alzheimer's, and Parkinson's.

Training and education in biopharmaceutical processing are exceptionally laboratory intensive. At JIB our students spend less time in traditional classroom settings and more time in JIB's pilot-scale facility fully equipped with the most advanced technologies and processes used by industry to manufacture biopharmaceuticals.

For the hybrid option, the Fall and Spring schedules for courses requiring the completion of on-site hands-on laboratory related coursework will be available prior to the start of each respective semester. In each instance, the on-site coursework will be scheduled in continuous late-semester blocks to avoid the necessity of frequent travel.

Learning Goals/Outcomes

- Prepare graduates for a wide range of positions in industry and academia.
- Provide scientific and engineering-based knowledge necessary for employment in the field.

- Impact Bioprocessing community through scholarship and advances in research.

Curriculum: 12 Months, 36 Credits

| Course | Title | Credits |
|-----------------------------------|---|-------------|
| Fall | | |
| ENGR 609 or BP 601 | Bioprocess Engineering for Sci or Bas Engineering for Scientists | 3 |
| ENGR 611 | Princ BioPharm Proc Engineerin | 3 |
| ENGR 607 | Bus & Entr in Life Sciences | 1.5 |
| ENGR 604 | Biopharm Process Ops | 3 |
| ENGR 603 | Appl Math & Stat Mtds in Bio | 1.5 |
| ENGR 600 | Bioanalytical Reg/Qual Princip | 3 |
| Credits | | 15 |
| Spring | | |
| BP 601 | Bas Engineering for Scientists | 3 |
| BP 602 | Bas Biochem & Bio for Engineer | 3 |
| ENGR 605 | QbD, Proc Sel & Optimization | 1.5 |
| ENGR 606 | Proc Charac & Validation | 1.6 |
| Concentration Coursework (p. 199) | | 6 |
| Credits | | 15.1 |
| Summer | | |
| ENGR 608 | Capstone Design Project | 6 |
| Credits | | 6 |
| Total Credits | | 36.1 |

Concentration Coursework

Select one concentration:

Concentration: Protein Replacement Therapies

The concentration is specifically designed to meet the needs of future industry professionals that would like to specialize in the areas of bio-therapeutic development and formulation. The courses included in the concentration provide participants with the knowledge and skillset to identify emerging developments in bio-therapeutic manufacturing, design and create viral and plasmid-based vectors using recombinant DNA technology and transfect / optimize the cell lines required to produce protein-based therapeutics. Participants will also be introduced to the challenges and opportunities in formulation practice with a focus on the development of liquid formulation for proteins and monoclonal antibodies for subcutaneous and intravenous delivery.

| Code | Title | Credits |
|----------|-----------------------------|---------|
| ENGR 613 | Vector & Cell Line Design | 3 |
| ENGR 612 | Emerging Therapeutics | 1.5 |
| ENGR 622 | Bio-Therapeutic Formulation | 1.5 |

Concentration: Analytical Techniques and Regulatory Principles

The concentration in Analytical Techniques and Regulatory Principles has been designed in response to a need within the biopharmaceutical industry for individuals with an advanced knowledge of the principles and practices of state-of-the-art analytical techniques and current regulatory requirements. The required coursework focuses on GMP analytical packages, Quality Management Systems and the regulatory principles, including ICH q 10, required to produce safe and efficacious therapeutics. Additionally, students will gain an understanding of the molecular techniques required to produce biologics and biosimilars, method validation, pharmaceutical GMP and Chemistry, Manufacturing and Control (CMC).

| Code | Title | Credits |
|----------|--------------------------------|---------|
| ENGR 616 | CMC & Pharm Good ManuPractices | 1.5 |
| ENGR 618 | Tech & Regulatory Aspects | 1.5 |
| ENGR 615 | Biologics & Biosimilars | 1.5 |
| ENGR 617 | Quality Systems for Reg Compl | 1.5 |

Concentration: Advanced Vaccine Manufacture

The unprecedented effects of newly emerging viruses with high mortality rates and pandemic disease causing potential has greatly increased the demand for vaccine manufacturing capabilities that can respond both rapidly and cost effectively. Advanced recombinant antigen vaccine manufacturing provides unparalleled opportunities to meet these needs, but requires specialized training and education. The Advanced Vaccine Manufacture concentration provides students with the knowledge and skillset to identify emerging developments in vaccine manufacturing, construct cell lines to produce advanced vaccines and formulate the end-product to meet the needs of patients in a safe and efficacious manner.

| Code | Title | Credits |
|----------|---------------------------|---------|
| ENGR 613 | Vector & Cell Line Design | 3 |
| ENGR 612 | Emerging Therapeutics | 1.5 |
| ENGR 614 | Vaccine Formulation | 1.5 |

School of Business

Academic Dean: Phillip Russel, PhD

<https://www.jefferson.edu/academics/colleges-schools-institutes/kanbar-college-of-design-engineering-commerce/school-of-business.html> Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/kanbar-college-of-design-engineering-commerce/school-of-business.html>)

About Us

Whether you are an entering freshman or a seasoned MBA student, the School of Business will provide you with the cutting-edge skills and knowledge to allow you to succeed at every stage of your career – from excelling in your first job, to discovering new professions and opportunities as technologies and business models evolve.

From day one you will take a deep dive into your major or concentration, while working with students from other disciplines and simulating what you will experience in the workplace. As you interact with your peers and instructors, you will apply analytics and creativity to conceive of new, valuable, market-driven products and services. As you earn your degree, you'll benefit from unique advantages such as study abroad, internships with regional business, and collaboration on real projects with industry leaders to build valuable connections that can last a lifetime.

Nexus Projects

Nexus learning and teaching model focuses on the active learning and real-world problem solving through collaboration between students and faculty across disciplines and with external partners. Recent Nexus Projects have included:

- Nathan Sports Industry Project
- OmniWind Energy Systems – Weight Challenge

- Top Ram Business Plan Competition
- Federal Mogul Industry Challenge

Academic Majors

- Accounting (p. 200) (BS)
- Brand Management (p. 201) (Graduate Certificate)
- Business Management (p. 201) (BS)
- Consulting (p. 201) (Graduate Certificate)
- Diversity, Equity and Inclusion for Healthcare Leaders (p. 202) (Graduate Certificate)
- Effective Organizational Communications (p. 202) (Graduate Certificate)
- Fashion Merchandising & Management (p. 205) (BS)
- Finance (p. 205) (BS)
- Fundamentals of Leadership and Organizational Development (p. 205) (Graduate Certificate)
- Healthcare Leadership (p. 206) (Graduate Certificate)
- Human Resource Management (p. 206) (Graduate Certificate)
- Information Technology (p. 207) (BS)
- Innovation (p. 210) (MBA)
- International Business (p. 208) (BS)
- Management (p. 208) (BS)
- Marketing (p. 209) (BS)
- Organizational Change Management (p. 212) (Graduate Certificate)
- Organizational Leadership (p. 213) (MS)
- Organizational Leadership (p. 212) (BS)
- Strategic Leadership (p. 214) (DMgt)
- Taxation (p. 215) (MS)
- Transformational Leadership (p. 215) (Graduate Certificate)

Accounting (BS)

Contacts

Program Director: Coordinator: Raymond Poteau, MBA, CPA

Email: Raymond.Poteau@jefferson.edu

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/kanbar-college-of-design-engineering-commerce/school-of-business/academic-programs/accounting.html>)

Program Description

The accounting major at Thomas Jefferson University prepares students to become professionals with a broad understanding of public accounting and financial management of corporate and nonprofit organizations. Students have the opportunity to network with accounting industry professionals, participate in industry-sponsored projects, complete an exciting semester abroad, or help to run our Student Managed Investment Fund. They can also earn their iMBA degree in one additional year of study while preparing for the Certified Public Accountant (CPA) exam. Accountants serve a variety of roles in every company. Our graduates have gone to work at the Federal Reserve Bank, Ernst & Young and KPMG, just to name a few.

Learning Goals/Outcomes

- Prepare and analyze, at an in-depth level, corporate financial statements
- Apply knowledge of relevant professional accounting standards in the financial reporting and auditing of U.S. and multinational firms.

Curriculum: 4 Year, 121-122 Credits

| Course | Title | Credits |
|---------------------------------|--------------------------------|------------|
| First Year | | |
| FYS 100 | Pathways Seminar | 1 |
| WRIT 101 | Writing Sem I: Written Comm. | 3 |
| MATH 1XX | Mathematics Placeholder | 3 |
| AVIS 101 | American Visions | 3 |
| DECF 102 | Finding & Shaping Opportunity | 3 |
| ECON 205 | Macroeconomics | 3 |
| ACCT 101 | Financial Accounting | 3 |
| ACCT 102 | Managerial Accounting | 3 |
| MKTG 102 | Principles of Marketing | 3 |
| MGMT 301 | Principles of Management | 3 |
| ECON 206 | Microeconomics | 3 |
| Credits | | 31 |
| Second Year | | |
| ETHIC 2xx | Ethics | 3 |
| ADIV 2xx | American Diversity | 3 |
| ACCT 203 | Intermediate Accounting I | 3 |
| WRIT 201 | Writing Seminar II: Multi Comm | 3 |
| ACCT 204 | Intermediate Accounting II | 3 |
| DECS xxx | Select one DECSYS course | 3 |
| General Elective | | 3 |
| ABA 201 | Intro to Business Analytics | 3 |
| ABA 202 | Statistical Data Analytics | 3 |
| FIN 301 | Financial Management | 3 |
| Credits | | 30 |
| Third Year | | |
| GDIV 2xx | Global Diversity | 3 |
| GCIT 2xxx | Global Citizenship | 3 |
| CGIS 300 | Contemporary Global Issues | 3 |
| ACCT 303 | Accounting Theory and Practice | 3 |
| ACCT 309 | Federal Taxes I | 3 |
| DECM 300 | Research Methods | 3 |
| ACCT 316 | Cost Accounting I | 3 |
| BLAW 301 | Business Law | 3 |
| ABA 301 | Data Mining & Predic Analytics | 3 |
| General Elective | | 3 |
| Credits | | 30 |
| Fourth Year | | |
| PHIL 499 | Philosophies of the Good Life | 3 |
| ABA 401 | Operations and Data Analytics | 3 |
| MGMT 498N | Bus Capstone: Strategy Sim | 3 |
| MGMT 499N | Business Capstone: CSR | 3 |
| ACCT 409 | Auditing | 3 |
| ACCT 412 | Advanced Accounting | 3 |
| General Electives or Internship | | 12 |
| Credits | | 30 |
| Total Credits | | 121 |

Brand Management (Graduate Certificate)

Associate Dean: Allison Keene, EdD

Program Description

For organizational leaders, managing the company's brand is vital to ensuring organizational growth opportunities, meeting target goals and attracting top talent. This Graduate Certificate in Brand Management combines business acumen and foundational marketing techniques with the broader concept of systems design to develop a student's ability to assess, analyze and execute an organization's mission, vision and values based on organizational strengths, weaknesses, opportunities and threats.

Academic Outcomes

- Analyze the laws of systems thinking and apply best practices for implementation by organizational leaders
- Develop business acumen: assess an organization for strengths, weaknesses, opportunities and threats with the ultimate goal of recommending future marketing strategies that align with the company's mission, vision and values

Curriculum: 12 credits

- Continuing & Professional Studies, Accelerated Program

| Code | Title | Credits |
|------------------------|--------------------------------|---------|
| Required | | |
| IMBX 713 | Course IMBX 713 Not Found | 3 |
| IMBA 761 | Promotion Management | 3 |
| Select One | | |
| LDSP 510 | Team Dynamics and Collaboratio | 3 |
| LDSP 515 | Org. Innovation, Creat & Chnge | 3 |
| LDSP 520 | Strat. Ldrshp in a VUCA World | 3 |
| Electives (Select One) | | |
| IMBX 604 | Business Model Innovation | 3 |
| IMBX 731 | Design Thinking in Business | 3 |
| LDSP 610 | Organizational Performance Met | 3 |
| LDSP 590 | Organizational Awareness | 3 |
| LDSP 620 | Global Leadership | 3 |
| LDSP 625 | Organizational Consulting I | 3 |

Business Management (BS)

Associate Dean: Allison Keene, EdD

Program Description

- Continuing & Professional Studies, Accelerated Program

The BS in Business Management covers traditional functional areas of business such as accounting, economics, finance, marketing, operations management, and technology, as well as current topics that are in demand such as creative leadership, project management, and business analytics. The capstone is an integrative course that enables students to analyze a firm's strategy and to make professional recommendations.

The program, which covers both management and leadership, prepares students to change careers or to advance in their current field. For those interested in graduate study, several required courses satisfy foundation courses in Jefferson's iMBA program.

Curriculum: 120 credits

- Continuing & Professional Studies, Accelerated Program

| Code | Title | Credits |
|------------------------------------|--------------------------------|---------|
| CPS General Education Requirements | | |
| Written Communication Elective | | 3 |
| Written Communication Elective | | 3 |
| STAX 211 | Finding & Evaluating Stat Data | 3 |
| Social Science Elective | | 3 |
| COMX 220 | Speak to Lead in Digital Age | 3 |
| PHLX 222 | Applied Professional Ethics | 3 |
| Social Science Elective | | 3 |
| Foundation Requirements | | |
| CSSX 101 | Learning Across the Lifespan | 3 |
| ACCX 111 | Financial Accounting | 3 |
| ACCX 112 | Managerial Accounting | 3 |
| BLWX 211 | Business Law | 3 |
| ECNX 231 | Economic Decision Making | 3 |
| MGTX 212 | Principles of Management | 3 |
| MKTX 211 | Principles of Marketing | 3 |
| Creativity & Leadership Core | | |
| CLCX 310 | Creativity Fnds & Applications | 3 |
| CLCX 330 | Project Management | 3 |
| CLCX 340 | Leading Diverse Organizations | 3 |
| CLCX 350 | Creative Leadership | 3 |
| CLCX 360 | Leadership in the Digital Age | 3 |
| Major Requirements | | |
| MISX 211 | Management Information Systems | 3 |
| FINX 323 | Financial Decision Making | 3 |
| MGTX 321 | Operations Management | 3 |
| MGTX 322 | Business Analytics & Vis. | 3 |
| BUSX 498 | Business Management Capstone | 3 |
| General Elective | | 48 |

Consulting (Graduate Certificate)

Associate Dean: Allison Keene, EdD

Program Description

As organizations compete to stay relevant and meet market demands, the need for consultants who have business acumen and can support an organization in strategic planning, goal-setting, reputational repair and recovery, or organizational redesign is key for future success. Professionals will learn the foundations of consulting, from drafting a consulting contract and developing the scope of a project through setting timelines, budgets, deliverables and developing stakeholder buy-in. Students will also become proficient in creating organizational

metrics to ensure organizations have a clear roadmap to success. The interdisciplinary approach to this certificate also allows students the ability to self-select other key areas of interest specific to their industry, role, and/or professional goals.

Academic Outcomes

- Develop a performance management system and reliable metrics to inform decision making for organizational growth and development
- Communicate critical elements of an implementation strategy in an effective manner to ensure organizational buy-in at all levels
- Analyze and implement critical strategic management consulting models and frameworks to assist various organizations in executing strategic solutions

Curriculum: 12 credits

- Continuing & Professional Studies, Accelerated Program

| Code | Title | Credits |
|------------------------|--------------------------------|---------|
| Required | | |
| LDSP 625 | Organizational Consulting I | 3 |
| LDSP 610 | Organizational Performance Met | 3 |
| Select One | | |
| LDSP 510 | Team Dynamics and Collaboratio | 3 |
| LDSP 515 | Org. Innovation, Creat & Chnge | 3 |
| LDSP 520 | Strat. Ldrshp in a VUCA World | 3 |
| Electives (Select One) | | |
| LDSP 620 | Global Leadership | 3 |
| IMBA 625 | Comm,negotiatn, Creatv Economy | 3 |
| LDSP 640 | Conflict & Negotiation in Orgs | 3 |
| LDSP 580 | HR & Employee Development | 3 |
| LDSP 590 | Organizational Awareness | 3 |
| IMBA 604 | Business Model Innovation | 3 |

Diversity, Equity and Inclusion for Healthcare Leaders (Graduate Certificate)

Associate Dean: Allison Keene, EdD

Program Description

Healthcare leaders are at the forefront of engaging with our communities on a regular basis, providing clinical care to diverse populations of patients across the region. Research shows, however, that health outcomes are negatively influenced by race, gender, sexual orientation and additional non-health factors, creating outcome inconsistencies across all populations. This certificate takes a novel approach to increasing diversity, equity and inclusion awareness among clinicians by integrating topics of cultural competence and leading diverse groups with key areas of focus around the social determinants of health, with the goal of creating a health system rooted in the concept of population health.

Academic Outcomes

- Evaluate policies and practices that create health impact outside of the traditional health care arena (i.e. tobacco legislation, soda and others in taxes, social impact bonds, and medical-legal partnerships).
- Develop self-awareness of one's own strengths and weaknesses and the biases that accompany them
- Create a profile for a global leader and utilize this framework to critique a current leader and their organization

Curriculum: 12 credits

- Continuing & Professional Studies, Accelerated Program

| Code | Title | Credits |
|-----------------------|--------------------------------|---------|
| LDSP 620 | Global Leadership | 3 |
| HPL 511 | PolAppr to Addr SocDet of Hlth | 3 |
| Select One | | |
| LDSP 510 | Team Dynamics and Collaboratio | 3 |
| LDSP 515 | Org. Innovation, Creat & Chnge | 3 |
| LDSP 520 | Strat. Ldrshp in a VUCA World | 3 |
| Elective (Select One) | | |
| HPL 505 | Legis, Exec, & Reg Processes | 3 |
| HPL 515 | Refugee & Migrant Health | 3 |
| LDSP 590 | Organizational Awareness | 3 |
| PBH 515 | Cultural Humility & Competence | 3 |
| PBH 501 | Foundations of Public Health | 3 |
| PBH 502 | Society,Behavior&Environment | 3 |
| PBH 507 | Fundamentals of Environ Health | 3 |
| PBH 603 | Substance Use | 3 |

Effective Organizational Communications (Graduate Certificate)

Associate Dean: Allison Keene, EdD

Program Description

Learning to develop and deliver succinct and effective messaging is vital for organizational leaders at all levels, but how do leaders refine and hone these skills with technology constantly changing and advancing? This Graduate Certificate in Effective Communication focuses on the risks and rewards that technology brings to communicating across an organization and how to best harness digital tools to become an effective leader.

Academic Outcomes

- Utilize multimedia tools to build trust and establish a culture of readiness for continual change
- Develop conflict resolution and negotiation skills by learning to identify signs of psychosocial and social factors that lead to conflict at multiple levels and applying conflict management processes

Curriculum: 12 credits

- Continuing & Professional Studies, Accelerated Program

| Code | Title | Credits |
|-----------------------|--------------------------------|---------|
| IMBX 627 | Competitive Tech Intelligence | 3 |
| LDSP 640 | Conflict & Negotiation in Orgs | 3 |
| Select One | | |
| LDSP 510 | Team Dynamics and Collaboratio | 3 |
| LDSP 515 | Org. Innovation, Creat & Chnge | 3 |
| LDSP 520 | Strat. Ldrshp in a VUCA World | 3 |
| Elective (Select One) | | |
| LDSP 620 | Global Leadership | 3 |
| IMBA 625 | Comm,negotiatn, Creatv Economy | 3 |
| HPL 513 | Eff Commun & Dissemin of Data | 3 |
| TXF 510 | Intro to Digital Imaging | 3 |
| HCMD 502 | Course HCMD 502 Not Found | 1.5 |
| HCMD 501 | Course HCMD 501 Not Found | 1.5 |

Fashion Merchandising & Management (BS)

Contacts

Program Director: Nioka Wyatt, MBA

Email: Nioka.Wyatt@jefferson.edu

215-951-5377

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/kanbar-college-of-design-engineering-commerce/school-of-business/academic-programs/fashion-merchandising-management.html>)

Program Description

Advancements in technology and globalization of the marketplace make the fashion industry an ever-changing, exciting place to work. This trillion-dollar industry needs bright, talented executives to guide the rapid pace of today's merchandising revolution. Skilled executives are required to deal with an increasingly complex variety of products and sourcing strategies and product development tasks, such as planning product lines months before they will appear in the stores. Once developed, new products must be sourced globally and then delivered to the consumer within a very short period.

The Fashion Merchandising and Management curriculum combines the fundamentals of business, including accounting, economics, marketing, finance and management, with textile and fashion courses taught by industry savvy professionals. Students learn the process of product development, Omni channel engagement, sourcing and supply chain strategy from fiber development to final product, and become familiar with the use of technology application as well as analytics. Additional topics in product lifecycle management, design concepts and merchandising are explored. Students are also involved in the process of selection, procurement and distribution of products in a retail setting where they learn the significance of product execution through visual presentation.

Learning Goals/Outcomes

In addition to the goals and outcomes outlined by the School of Business Administration, graduates from the fashion merchandising and management program will be able to:

- Identify the interrelationship between the supply and value chain
- Explain retail strategies and company structure in global environments

Curriculum: 4 Years, 122-123 Credits

| Course | Title | Credits |
|-----------------------|--------------------------------|--------------|
| First Year | | |
| FYS 100 | Pathways Seminar | 1 |
| WRIT 101 | Writing Sem I: Written Comm. | 3 |
| WRIT 201 | Writing Seminar II: Multi Comm | 3 |
| AVIS 101 | American Visions | 3 |
| MATH 1XX | Mathematics Placeholder | 3 |
| DECF 102 | Finding & Shaping Opportunity | 3 |
| ECON 205 | Macroeconomics | 3 |
| ACCT 101 | Financial Accounting | 3 |
| ACCT 102 | Managerial Accounting | 3 |
| MKTG 102 | Principles of Marketing | 3 |
| FASM 101 | Global Fashion Insight | 3 |
| DBTU 114 | Debating U.S. Issues | 3 |
| Credits | | 34 |
| Second Year | | |
| ETHIC 2XX | Ethics | 3 |
| GDIV 1xx | Global Diversity | 3 |
| DECS 2XX | Science (Select one DECSYS) | 3-4 |
| Specialization Course | | 3 |
| ABA 201 | Intro to Business Analytics | 3 |
| ECON 202 | Principles of Microeconomics | 3 |
| MGMT 301 | Principles of Management | 3 |
| ABA 202 | Statistical Data Analytics | 3 |
| MKTG 217 | Retailing Strategy & Structure | 3 |
| TEXT 101 | Survey of Textile Industry | 3 |
| Credits | | 30-31 |
| Third Year | | |
| ADIV 2XX | American Diversity | 3 |
| GCIT 2XX | Global Citizenship | 3 |
| CGIS 300 | Contemporary Global Issues | 3 |
| DECM 300 | Research Methods | 3 |
| BLAW 301 | Business Law | 3 |
| FIN 301 | Financial Management | 3 |
| ABA 301 | Data Mining & Predic Analytics | 3 |
| DSGF 423 | Design Concepts | 3 |
| CAD 201 | Intro to Digital Imaging | 3 |
| Specialization Course | | 3 |
| Credits | | 30 |
| Fourth Year | | |
| PHIL 499 | Philosophies of the Good Life | 3 |
| MGMT 498N | Bus Capstone: Strategy Sim | 3 |
| MGMT 499N | Business Capstone: CSR | 3 |
| ABA 401 | Operations and Data Analytics | 3 |
| TEXT 411 | Textile Industry Issues | 1 |
| Specialization Course | | 3 |

| Course | Title | Credits |
|--------------------------------|-------|----------------|
| General Electives / Internship | | 12 |
| Credits | | 28 |
| Total Credits | | 122-123 |

- Compile new fashion designs/ideas/technologies into business models and actionable plans.

Specializations

Students select one based on Career Pathway

(a) Buying & Merchandising

Merchandise Buying/Operations
Product Development & Innovation -Visual Merchandising

(b) Global Brand Strategy

Contemporary Brand Mgt.
Apparel Merchandising Mgt.
Business Licensing

(c) Fashion Product Development

Prototyping
Integrated Technology
Value Chain Innovation

Fashion Merchandising and Management (MS)

Contacts

Program Director: Shubha Bennur, PhD

Email: Shubha.Bennur@jefferson.edu

215-951-0465

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/kanbar-college-of-design-engineering-commerce/school-of-business/academic-programs/ms-fashion-merchandising-management.html>)

Program Description

Expands the career horizons of forward-thinking professionals with diverse backgrounds in fashion design, merchandising, management, and other industries who want a competitive edge, valuable connections, and real-world experience in the evolving fashion industry. Students benefit from a focus on global fashion development and an appreciation of apparel ecosystems throughout the value chain. Graduates of the MSGFE program possess the skills, knowledge and industry networks to bring value-added innovation to the fashion industry and to manage a thriving global fashion enterprise successfully.

Note: Program name changed from Global Fashion Enterprise 2023)

Learning Goals/Outcomes

- Evaluate & utilize global fashion value chain innovations and best practices in solving industry problems and tapping opportunities
- Identify multicultural influences on the conduct of business throughout the global apparel value chain, including ethical issues
- Evaluate and leverage technologies and metrics in driving fashion industry performance
- Integrate material and product analysis and lifecycle assessments throughout the fashion value chain

Curriculum: 2 Year, 31-43 Credits

| Code | Title | Credits |
|----------------------|--------------------------------|-----------|
| IMBF 504 | Financial & Managerial Acct. | 1.5 |
| IMBF 505 | Financial Management | 1.5 |
| IMBG 508 | Course IMBG 508 Not Found | 1.5 |
| GFEF 501 | Prototyping | 3 |
| IMBF 510 | Operations Management | 1.5 |
| IMBA 604 | Business Model Innovation | 3 |
| GFE 600 | Fashion Immersion | 3 |
| GFE 612 | Technology in Fashion | 3 |
| GFE 621 | Fashion Global Mktg & Sourcing | 3 |
| GFE 725 | Brand Driven Desgn & Innovatn | 3 |
| GFE 732 | Fashion Seminar | 1 |
| GFE 734 | Fashion Supply Chain Mgmt | 3 |
| IMBA 759 | Entrepreneurship | 3 |
| TXF 510 | Intro to Digital Imaging | 3 |
| GFE 791 | Course GFE 791 Not Found | 3 |
| GFE 793 | Global Fashion Networking | 3 |
| GFE 721 | Global Fashion Project 1 | 3 |
| GFE 722 | Global Fashion Project 2 | 3 |
| GFE 723 | Global Fashion Project 3 | 3 |
| Total Credits | | 49 |

Finance (BS)

Contacts

Program Director: Coordinator: Timothy Mooney, PhD

Email: Timothy.Mooney@Jefferson.edu

215-951-2820

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/kanbar-college-of-design-engineering-commerce/school-of-business/academic-programs/finance.html>)

Program Description

The finance major at Thomas Jefferson University prepares students to become professionals with a comprehensive understanding of global financial markets and financial institutions. Our graduates are prepared with skills to tackle complex financial problems, and have the professionalism to work effectively in any environment. Students have the opportunity to network with industry professionals, participate in international competitions, manage an investment portfolio through our Student Managed Investment Fund, study abroad for a semester, and earn their iMBA degree in one additional year while preparing for the Chartered Financial Analyst Level I (CFA) exam.

Learning Goals/Outcomes

In addition to the goals and outcomes outlined by the School of Business Administration, graduates from the finance program will be able to:

- Demonstrate knowledge of domestic and global capital markets and financial institutions

- Explain how managers make value-maximizing decisions in a corporation

Curriculum: 4 Years, 121-122 Credits

| Course | Title | Credits |
|--------------------------------|---------------------------------|----------------|
| First Year | | |
| FYS 100 | Pathways Seminar | 1 |
| WRIT 101 | Writing Sem I: Written Comm. | 3 |
| AVIS 101 | American Visions | 3 |
| MATH 1XX | Mathematics Placeholder | 3-4 |
| DECF 102 | Finding & Shaping Opportunity | 3 |
| WRIT 201 | Writing Seminar II: Multi Comm | 3 |
| ECON 205 | Macroeconomics | 3 |
| ACCT 101 | Financial Accounting | 3 |
| ACCT 102 | Managerial Accounting | 3 |
| MKTG 102 | Principles of Marketing | 3 |
| MGMT 301 | Principles of Management | 3 |
| Credits | | 31-32 |
| Second Year | | |
| ETHC 2XX | Ethics | 3 |
| GDIV 2xx | Global Diversity | 3 |
| DECF 200 | Business Models | 3 |
| DECS 2XX | Science (Select one DECSYS) | 3 |
| General Electives | | 6 |
| ECON 206 | Microeconomics | 3 |
| ABA 201 | Intro to Business Analytics | 3 |
| ABA 202 | Statistical Data Analytics | 3 |
| FIN 301 | Financial Management | 3 |
| Credits | | 30 |
| Third Year | | |
| ADIV 2XX | American Diversity | 3 |
| GCIT 2XX | Global Citizenship | 3 |
| CGIS 300 | Contemporary Global Issues | 3 |
| DECM 300 | Research Methods | 3 |
| FIN 318 | International Finance & Dev | 3 |
| FIN 303 | Intermediate Financial Mgmt | 3 |
| FIN 322 | Capital Mkts & Fin Institutions | 3 |
| FIN 321 | Investments & Portfolio Mgmt | 3 |
| BLAW 301 | Business Law | 3 |
| ABA 301 | Data Mining & Predic Analytics | 3 |
| Credits | | 30 |
| Fourth Year | | |
| ABA 401 | Operations and Data Analytics | 3 |
| FIN 411 | Personal Fin Plann & Risk Mgt. | 3 |
| FIN 412 | Financial Modeling | 3 |
| MGMT 498N | Bus Capstone: Strategy Sim | 3 |
| MGMT 499N | Business Capstone: CSR | 3 |
| PHIL 499 | Philosophies of the Good Life | 3 |
| General Elective or Internship | | 12 |
| Credits | | 30 |
| Total Credits | | 121-122 |

Fundamentals of Leadership and Organizational Development (Graduate Certificate)

Associate Dean: Allison Keene, EdD

Program Description

Preparing organizational leaders to face a world filled with volatility, uncertainty, complexity and ambiguity, required coursework gets to the heart of executing innovate change to lead effective and successful organizations. Key areas of focus will include team dynamics, ethical integrity, conflict resolution, creative vision, change management, and informed decision making.

Academic Outcomes

- Interpret organizational dynamics, team dynamics, and engage in systems thinking in order to promote the development of a learning organization capable of effective communication, managing conflict, creating innovation, and adaptation
- Articulate knowledge and application of best practices in leadership, team building, cultural competence and ethical leadership
- Evaluate the impact volatility, uncertainty, complexity, and ambiguity have on an organization and strategize opportunities for responsive organizational innovation

Curriculum: 12 credits

- Continuing & Professional Studies, Accelerated Program

| Code | Title | Credits |
|----------|--------------------------------|---------|
| LDSP 510 | Team Dynamics and Collaboratio | 3 |
| LDSP 515 | Org. Innovation, Creat & Chnge | 3 |
| LDSP 520 | Strat. Ldrshp in a VUCA World | 3 |
| LDSP 590 | Organizational Awareness | 3 |

Healthcare Leadership (Graduate Certificate)

Associate Dean: Allison Keene, EdD

Curriculum: 12 credits

| Code | Title | Credits |
|-----------------------|--------------------------------|---------|
| LDSP 610 | Organizational Performance Met | 3 |
| LDSP 640 | Conflict & Negotiation in Orgs | 3 |
| Select One | | |
| LDSP 510 | Team Dynamics and Collaboratio | 3 |
| LDSP 515 | Org. Innovation, Creat & Chnge | 3 |
| LDSP 520 | Strat. Ldrshp in a VUCA World | 3 |
| Elective (Select One) | | |
| POP 500 | Essentials of PopulationHealth | 3 |
| POP 510 | Health Econ, Risk, & Finance | 3 |

| Code | Title | Credits |
|----------|--------------------------------|---------|
| POP 542 | Pop Health Analytics for Emp | 3 |
| IMBX 731 | Design Thinking in Business | 3 |
| PBH 515 | Cultural Humility & Competence | 3 |
| PBH 520 | Program Planning & Evaluation | 3 |
| PHP 504 | Pharm Informatics&Hlthcre Data | 3 |
| AHE 506 | SubjectiveOutcomesHealthEval | 3 |
| AHE 507 | Claims-Based AHEOR | 3 |
| HCMD 602 | Course HCMD 602 Not Found | 3 |
| HDS 527 | Analytics Leadership | 3 |
| HDS 532 | Data Visualization | 3 |
| OPX 530 | Appl Lead Strat for Eff Change | 3 |
| OPX 535 | Strategic Execution | 3 |

Human Resource Leadership (Graduate Certificate)

Associate Dean: Allison Keene, EdD

Program Description

Students will focus on key concepts necessary to make informed decisions, attract, hire and retain employees, and develop key negotiation and conflict resolution skills. Covering theoretical components and their application, students will develop conflict analysis tools and utilize best practices in human resources to make informed decisions that promote strategic organizational growth and development.

Academic Outcomes

- Investigate and design a human relations and development model that assesses and supports an organization relative to recruitment, engagement, and development of programs that support organizational mission, values, and goals
- Develop conflict resolution and negotiation skills by learning to identify signs of psychosocial and social factors that lead to conflict at interpersonal and group level of conflict and applying conflict management processes

Curriculum: 12 credits

- Continuing & Professional Studies

| Code | Title | Credits |
|------------------------|--------------------------------|---------|
| Required | | |
| LDSP 580 | HR & Employee Development | 3 |
| LDSP 640 | Conflict & Negotiation in Orgs | 3 |
| Select One | | |
| LDSP 510 | Team Dynamics and Collaboratio | 3 |
| LDSP 515 | Org. Innovation, Creat & Chnge | 3 |
| LDSP 520 | Strat. Ldrshp in a VUCA World | 3 |
| Electives (Select One) | | |
| LDSP 590 | Organizational Awareness | 3 |
| LDSP 605 | Leading in the Digital Age | 3 |
| LDSP 610 | Organizational Performance Met | 3 |
| LDSP 620 | Global Leadership | 3 |

| Code | Title | Credits |
|---------|--------------------------------|---------|
| POP 544 | New Models & Employee Hlthcare | 3 |
| POP 545 | Pop Health Law for Employers | 3 |

Human Resource Management (BS)

Associate Dean: Allison Keene, EdD

Program Description

The BS in Human Resource Management will enable you to become a knowledgeable human resource professional through a curriculum informed by professional organizations that lead the field including the Society for Human Resource Management (SHRM). Courses in the functional areas of human resources such as staffing and recruitment, compensation and benefits, training and development, and employment law are complemented by integrative courses such as global human resource management and the capstone course. Graduates are prepared for entry-level positions in a variety of organizations or for graduate-level study in business (<https://www.jefferson.edu/academics/colleges-schools-institutes/kanbar-college-of-design-engineering-commerce/school-of-business/academic-programs/innovation-mba.html>) or organizational leadership (<https://www.jefferson.edu/academics/colleges-schools-institutes/continuing-professional-studies/degree-options/ms-organizational-leadership.html>).

Curriculum: 120 credits

- Continuing & Professional Studies, Accelerated Program

| Code | Title | Credits |
|------------------------------------|--------------------------------|---------|
| CPS General Education Requirements | | |
| Written Communication Elective | | 3 |
| Written Communication Elective | | 3 |
| Math Elective | | 3 |
| Science Elective | | 3 |
| COMX 220 | Speak to Lead in Digital Age | 3 |
| PHLX 222 | Applied Professional Ethics | 3 |
| Social Science Elective | | 3 |
| Foundation Requirements | | |
| CSSX 101 | Learning Across the Lifespan | 3 |
| FINX 201 | Acct & Fin for Nonfin Leaders | 3 |
| ECNX 231 | Economic Decision Making | 3 |
| Creativity & Leadership Core | | |
| CLCX 310 | Creativity Fnds & Applications | 3 |
| CLCX 330 | Project Management | 3 |
| CLCX 340 | Leading Diverse Organizations | 3 |
| CLCX 350 | Creative Leadership | 3 |
| CLCX 360 | Leadership in the Digital Age | 3 |
| Major Requirements | | |
| HRMX 201 | Intro to HR Management | 3 |
| HRMX 305 | Staffing and Recruitment | 3 |
| HRMX 307 | Compensation and Benefits | 3 |
| HRMX 308 | Training & Development | 3 |
| HRMX 341 | Employment Law | 3 |
| HRMX 343 | Global HR Management | 3 |

| Code | Title | Credits |
|------------------|---------------------------------|---------|
| HRMX 345 | Organizational Develop & Change | 3 |
| HRMX 498 | HR Management Capstone | 3 |
| General Elective | | 51 |

Basic Editing

Start typing in normal text.

Starting a new paragraph.

Subheading

- one
- two
- three

space between lists

- dash
- dash
- dash

Links

Thomas Jefferson University (<https://www.jefferson.edu>) (external)

Kanbar (p. 195) (internal)

Registrar (registrar@jefferson.edu) (email)

CLCX 310 Creativity Fnds & Applications is a great course.

CLCX 320 Creativity in the Digital Age is a great course.

NU 605 Role Of The Adv Prac Nur is a great course.

NU 600 Course NU 600 Not Found is a great course.

Tables

| Code | Title | Credits |
|--|--------------------------------|-----------|
| CPS General Education Requirements | | |
| Written Communication Elective (3 credits) | | |
| Written Communication Elective | | |
| Math Elective | | |
| Science Elective | | |
| Social Science Elective | | |
| COMX 220 | Speak to Lead in Digital Age | |
| PHLX 222 | Applied Professional Ethics | |
| Total | | 21 |
| Foundation Requirements | | |
| CSSX 101 | Learning Across the Lifespan | 3 |
| FINX 201 | Acct & Fin for Nonfin Leaders | 3 |
| ECNX 231 | Economic Decision Making | 3 |
| Creativity & Leadership Core | | |
| CLCX 310 | Creativity Fnds & Applications | 3 |
| CLCX 330 | Project Management | 3 |
| CLCX 340 | Leading Diverse Organizations | 3 |
| CLCX 350 | Creative Leadership | 3 |
| CLCX 360 | Leadership in the Digital Age | 3 |

| Code | Title | Credits |
|----------------------|-------------------------------------|------------|
| Major Requirements | | |
| HRMX 201 | Intro to HR Management | 3 |
| HRMX 305 | Staffing and Recruitment | 3 |
| HRMX 307 | Compensation and Benefits | 3 |
| HRMX 308 | Training & Development | 3 |
| HRMX 343 | Global HR Management | 3 |
| ACCT 102 | Managerial Accounting | 3 |
| NU 605 | Role Of The Adv Prac Nur | 3 |
| HRMX 345 | Organizational Develop & Change | 3 |
| HRMX 498 | HR Management Capstone ¹ | 3 |
| General Elective | | 51 |
| Total Credits | | 123 |

¹ This is my footnote.

Information Technology (BS) Program Description

- Continuing & Professional Studies, Accelerated Program

Building on foundational courses in information systems, hardware, operating systems, and software development, the curriculum covers major information technology (IT) domains including database, systems analysis and design, networking, cloud, and cybersecurity. The program concludes with integrative courses in IT process and service management and the capstone course.

Curriculum: 120 credits

-Continuing & Professional Studies: Accelerated program

| Code | Title | Credits |
|------------------------------------|--------------------------------|---------|
| CPS General Education Requirements | | |
| Written Communication Elective | | |
| Written Communication Elective | | |
| Science Elective | | |
| Math Elective | | |
| COMM 220 | Speak to Lead in Digital Age | 3 |
| PHIL 222 | Applied Professional Ethics | 3 |
| Social Science Elective | | |
| Foundation Requirements | | |
| CSSX 101 | Learning Across the Lifespan | 3 |
| FINX 201 | Acct & Fin for Nonfin Leaders | 3 |
| Creativity & Leadership Core | | |
| CLCX 310 | Creativity Fnds & Applications | 3 |
| CLCX 330 | Project Management | 3 |
| CLCX 340 | Leading Diverse Organizations | 3 |
| CLCX 350 | Creative Leadership | 3 |
| CLCX 360 | Leadership in the Digital Age | 3 |
| Major Requirements | | |
| ITX 211 | Intro to Information Systems | 3 |
| ITX 221 | Hardware & Operating Systems | 3 |
| ITX 241 | Software Development | 3 |
| ITX 320 | Database Management | 3 |

| Code | Title | Credits |
|---------|---------------------------|---------|
| ITX 321 | Systems Analysis & Design | 3 |
| ITX 322 | Network Management | 3 |
| ITX 323 | Cloud Management | 3 |
| ITX 323 | Cloud Management | 3 |
| ITX 324 | Cybersecurity Management | 3 |
| ITX 325 | IT Process & Service Mgmt | 3 |
| ITX 498 | Information Tech Capstone | 3 |

International Business (BS)

Contacts

Program Director: Coordinator: Anusua Datta, PhD

Email: Anusua.Datta@jefferson.edu

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/kanbar-college-of-design-engineering-commerce/school-of-business/academic-programs/international-business.html>)

Program Description

Prepares students to become professionals with a distinct ability to understand and excel in the global marketplace. Students in this program have the opportunity to become bilingual through advanced study of another language, travel abroad extensively to experience cultural immersion in places like Paris and Shanghai, and broaden disciplinary experience by taking a minor from another business discipline. Students can earn their iMBA degree in one additional year. International business skills are increasingly valuable in our globalized world. Our students have gone to work at multinational companies including Aramark, Merrill Lynch and Citibank, just to name a few.

Learning Goals/Outcomes

In addition to the goals and outcomes outlined by the School of Business Administration, graduates from the international business program will be able to utilize financial, economic, management and marketing trends and tools to make global strategic decisions.

Curriculum: 4 Years, 121-122 Credits

| Course | Title | Credits |
|--------------------|-------------------------------|--------------|
| First Year | | |
| FYS 100 | Pathways Seminar | 1 |
| WRIT 101 | Writing Sem I: Written Comm. | 3 |
| ECON 206 | Microeconomics | 3 |
| AVIS 101 | American Visions | 3 |
| MATH 1xx | Mathematics | 3-4 |
| DECF 102 | Finding & Shaping Opportunity | 3 |
| ECON 205 | Macroeconomics | 3 |
| ACCT 101 | Financial Accounting | 3 |
| ACCT 102 | Managerial Accounting | 3 |
| MKTG 102 | Principles of Marketing | 3 |
| MGMT 301 | Principles of Management | 3 |
| Credits | | 31-32 |
| Second Year | | |
| ETHIC 2XX | Ethics | 3 |
| ADIV 2XX | American Diversity | 3 |
| GDIV 1xx | Global Diversity | 3 |
| WRIT 2xx | Multimedia Communication | 3 |

| Course | Title | Credits |
|----------------|-----------------------------|-----------|
| DECS 2XX | Systems: Select one DECS | 3 |
| FIN 301 | Financial Management | 3 |
| MGMT 307 | International Management | 3 |
| BLAW 301 | Business Law | 3 |
| ABA 201 | Intro to Business Analytics | 3 |
| ABA 202 | Statistical Data Analytics | 3 |
| Credits | | 30 |

Third Year

| | | |
|------------------|--------------------------------|-----------|
| GCIT 2XX | Global Citizenship | 3 |
| CGIS 300 | Contemporary Global Issues | 3 |
| DECM 300 | Research Methods | 3 |
| MKTG 324 | International Marketing | 3 |
| FIN 318 | International Finance & Dev | 3 |
| ECON 401 | International Economics | 3 |
| LANG xxx | Language | 6 |
| ABA 301 | Data Mining & Predic Analytics | 3 |
| General Elective | | 3 |
| Credits | | 30 |

Fourth Year

| | | |
|----------------------|-------------------------------|----------------|
| ABA 401 | Operations and Data Analytics | 3 |
| MGMT 498N | Bus Capstone: Strategy Sim | 3 |
| MGMT 499N | Business Capstone: CSR | 3 |
| PHIL 499 | Philosophies of the Good Life | 3 |
| Business Minor | | 12 |
| General Electives | | 6 |
| Credits | | 30 |
| Total Credits | | 121-122 |

Management (BS)

Contacts

Program Director: Coordinator: Cathy A. Rusinko, PhD

Email: Cathy.Rusinko@jefferson.edu

215-951-2679

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/kanbar-college-of-design-engineering-commerce/school-of-business/academic-programs/management.html>)

Program Description

The management major provides a broad-based and flexible approach to the study of business. Management majors focus on skills including teamwork, conflict resolution, leadership, professional communication, decision making, project management and creative problem solving. They can apply their expertise in for-profit and not-for-profit companies of all sizes or in their own entrepreneurial ventures. The major is flexible enough to accommodate a variety of options, including a minor from another disciplinary area, an internship and study abroad.

Our alumni have distinguished themselves in a variety of industries, including healthcare, communication, retail, banking, insurance, global manufacturing, public agencies, and other service industries. Some graduates manage family businesses or start their own businesses.

Students also have the opportunity to earn their iMBA degree in one additional year.

Learning Goals/Outcomes

In addition to the goals and outcomes outlined by the School of Business, graduates from the management program will be able to:

Apply their skills in leadership, teamwork, communication, and human resources to solve problems and inspire innovation in a wide array of companies and organizations.

Curriculum: 4 Years, 121, 122 Credits

| Course | Title | Credits |
|----------------------|--------------------------------|----------------|
| First Year | | |
| FYS 100 | Pathways Seminar | 1 |
| WRIT 101 | Writing Sem I: Written Comm. | 3 |
| WRIT 201 | Writing Seminar II: Multi Comm | 3 |
| AVIS 101 | American Visions | 3 |
| MATH xxx | Mathematics | 3-4 |
| DECF 102 | Finding & Shaping Opportunity | 3 |
| ECON 205 | Macroeconomics | 3 |
| ACCT 101 | Financial Accounting | 3 |
| ACCT 102 | Managerial Accounting | 3 |
| MKTG 302 | Prod Devp & Innovation | 3 |
| MGMT 301 | Principles of Management | 3 |
| Credits | | 31-32 |
| Second Year | | |
| ETHIC 2XX | Ethics | 3 |
| ADIV 1XX | American Diversity | 3 |
| General Electives | | 3 |
| DECS 2XX | Science (Select one DECSYS) | 3 |
| MGMT 310 | People & Teams in Organizatns | 3 |
| MGMT 315 | Communiation & Negotiation | 3 |
| ECON 202 | Principles of Microeconomics | 3 |
| ABA 201 | Intro to Business Analytics | 3 |
| ABA 202 | Statistical Data Analytics | 3 |
| FIN 301 | Financial Management | 3 |
| Credits | | 30 |
| Third Year | | |
| GDIV 2xx | Global Diversity | 3 |
| GCIT 2XX | Global Citizenship | 3 |
| CGIS 300 | Contemporary Global Issues | 3 |
| DECM 300 | Research Methods | 3 |
| General Electives | | 6 |
| MGMT 320 | Human Resources Prac & Tools | 3 |
| MGMT XXX | Management Elective | 3 |
| BLAW 301 | Business Law | 3 |
| ABA 301 | Data Mining & Predic Analytics | 3 |
| Credits | | 30 |
| Fourth Year | | |
| PHIL 499 | Philosophies of the Good Life | 3 |
| ABA 401 | Operations and Data Analytics | 3 |
| MGMT 498N | Bus Capstone: Strategy Sim | 3 |
| MGMT 499N | Business Capstone: CSR | 3 |
| MGMT 412 | Current Management Topics | 3 |
| Management Elective | | 3 |
| General Electives | | 12 |
| Credits | | 30 |
| Total Credits | | 121-122 |

Marketing (BS)

Contacts

Program Director: Coordinator: Chae Mi Lim, PhD

Email: Chae.Mi.Lim@jefferson.edu

215-951-2812

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/kanbar-college-of-design-engineering-commerce/school-of-business/academic-programs/marketing.html>)

Program Description

The marketing major at Thomas Jefferson University prepares students to become professionals with a strong marketing foundation and real-world experiences. Students are prepared with skills to create value through strategic marketing plans and innovations and solve complex business problems in a collaborative team environment. Students have the opportunity to network with industry professionals, study abroad, and earn their iMBA degree in one additional year. Our graduates land jobs in advertising, brand management, digital marketing, marketing research, customer relationship management, and many other areas.

Learning Goals/Outcomes

In addition to the goals and outcomes outlined by the School of Business Administration, graduates from the marketing program will be able to:

- Demonstrate knowledge of concepts used in the strategic marketing process, with emphasis on SWOT analysis and environmental scanning
- Apply select elements of the marketing mix to marketing strategy for a product or service business

Curriculum: 4 Years, 121-122 Credits

| Course | Title | Credits |
|--------------------|--------------------------------|--------------|
| First Year | | |
| FYS 100 | Pathways Seminar | 1 |
| WRIT 101 | Writing Sem I: Written Comm. | 3 |
| MATH 1XX | Mathematics | 3-4 |
| AVIS 101 | American Visions | 3 |
| DECF 102 | Finding & Shaping Opportunity | 3 |
| ACCT 101 | Financial Accounting | 3 |
| ACCT 102 | Managerial Accounting | 3 |
| MKTG 102 | Principles of Marketing | 3 |
| ECON 205 | Macroeconomics | 3 |
| MGMT 301 | Principles of Management | 3 |
| ECON 206 | Microeconomics | 3 |
| Credits | | 31-32 |
| Second Year | | |
| ETHIC 2XX | Ethics | 3 |
| ADIV 2XX | American Diversity | 3 |
| WRIT 201/202 | Writing Seminar II: Multi Comm | 3-4 |
| DECS 2XX | Science (Select one DECS) | 3 |
| BLAW 301 | Business Law | 3 |
| ABA 201 | Intro to Business Analytics | 3 |
| ABA 202 | Statistical Data Analytics | 3 |
| FIN 301 | Financial Management | 3 |
| MKTG 207 | Consumer in the Market Place | 3 |

| Course | Title | Credits |
|---------------------------------|--------------------------------|----------------|
| MKTG 310 | Integrated Mktg Communication | 3 |
| Credits | | 30-31 |
| Third Year | | |
| GDIV 2XX | Global Diversity | 3 |
| GCIT 2XX | Global Citizenship | 3 |
| CGIS 300 | Contemporary Global Issues | 3 |
| DECM 300 | Research Methods | 3 |
| ABA 301 | Data Mining & Predic Analytics | 3 |
| MKTG 305 | Contemporary Brand Mgmt. | 3 |
| MKTG 315 | Mktg in a Digital Environment | 3 |
| General Electives | | 9 |
| Credits | | 30 |
| Fourth Year | | |
| PHIL 499 | Philosophies of the Good Life | 3 |
| ABA 401 | Operations and Data Analytics | 3 |
| MGMT 498N | Bus Capstone: Strategy Sim | 3 |
| MGMT 499N | Business Capstone: CSR | 3 |
| MKTG 391 | Marketing Research | 3 |
| MKTG 412 | Marketing Strategy Seminar | 3 |
| General Electives or Internship | | 12 |
| Credits | | 30 |
| Total Credits | | 121-123 |

MBA (Business Administration)

Contacts

Program Director: D. K. Malhotra, PhD

Email: Davinder.Malhotra@jefferson.edu

215-951-2813

Campus: East Falls/Center City

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/kanbar-college-of-design-engineering-commerce/school-of-business/academic-programs/innovation-mba.html>)

Program Description

- **STEM** designated program

The iMBA's integrated curriculum helps students become dynamic problem-solvers and entrepreneurial thinkers, learning to navigate new, more valuable realities for their businesses and careers. Regardless of delivery method, our faculty of world-renowned academicians and industry experts brings invaluable real-world experience to the classroom, and Thomas Jefferson University's signature learning strategies inspire market-driven innovation through teamwork, collaboration, and industry connections. Jefferson iMBA graduates are exceptionally well prepared to be leaders in the exciting, challenging global marketplace.

Learning Goals/Outcomes

- Ethical Responsibility – students will implement ethical decisions
- Financial Skills – students will analyze financial ratios and statements
- Writing Skills – students will write effective business documents
- Leadership Skills – students will exhibit leadership and independent thinking skills, and work effectively in teams
- Integrative Learning – students will blend knowledge and skill sets from different disciplinary areas to develop effective business strategies

Curriculum: 2 Year, 36-46 Credits

| Code | Title | Credits |
|-------------|--------------------------------|---------|
| IMBF 503 | Course IMBF 503 Not Found | 3 |
| IMBF 504 | Financial & Managerial Acct. | 1.5 |
| IMBF 505 | Financial Management | 1.5 |
| IMBF 508 | Stat. Analysis for Bus Decisn | 1.5 |
| IMBF 510 | Operations Management | 1.5 |
| IMBA 731 | Design Thinking in Business | 3 |
| IMBA 602 | Managn Innovative Peo & Teams | 3 |
| IMBA 604 | Business Model Innovation | 3 |
| IMBA 627 | Competitive Tech Intelligence | 3 |
| IMBA 628 | Accounting for Mgmt Decisions | 3 |
| IMBA 629 | Financial Policy and Planning | 3 |
| IMBA 630 | Operations Systems Perspectiv | 3 |
| IMBA 642 | Strat Insight & Implementation | 3 |
| IMBA 792 | Internation Business Innovatn | 3 |
| or IMBA 700 | Intl. Economic and Finance | |

Concentration Courses

Select one of the following concentrations: 9-10

Accounting (CPA Prep) (p. 210)

Health Analytics (p. 210)

Biopharmaceutical Commercialization (p. 211)

Cannabis Business (p. 211)

Fashion Business (p. 211)

Finance (CFA Prep) (p. 211)

Leadership (p. 211)

Marketing (p. 211)

Real Estate Development (p. 212)

Total Credits

45-46

Concentration: Accounting

Provides students with tailored accounting or taxation coursework and aligned CPA exam preparation, in addition to the MBA core curriculum. This option is designed so students can earn their MBA degree and complete the four sections of the CPA exam in as little as one year, though a part-time option is also available.

| Code | Title | Credits |
|---|-------------------------------|---------|
| CPA Preparation Accounting Courses | | |
| IMBA 741 | Financial Acct & Reporting I | 3 |
| IMBA 742 | Financial Acct & Reporting II | 3 |
| IMBA 743 | Audit and Attestation | 4 |
| Becker CPA Review | | 0 |
| CPA Preparation Taxation Courses | | |
| TAX 660 | Individual Taxation & Plann | 3 |
| TAX 662 | Corporation Taxation & Plann | 3 |
| TAX 664 | Tax Research & Profe Responsi | 3 |
| Becker CPA Review | | 0 |

Concentration: Health Analytics

The concentration in Health Analytics is designed to provide students with the knowledge and skills necessary to build a rewarding career in the healthcare industry. It prepares graduates to be successful in an ever-changing healthcare environment driven by data and analytics

and the ability to turn data into insight and action. Knowledge of a programming language (R or Python) and graduate level advanced statistics is required for this concentration.

| Code | Title | Credits |
|-------------------------|--------------------------------|---------|
| Required Courses | | |
| HDS 501 | Health Informatics & Analytics | 3 |
| HDS 518 | Data Science I | 3 |
| HDS 532 | Data Visualization | 3 |

Concentration: Biopharmaceutical Commercialization

Through collaboration with the Jefferson Institute for Bioprocessing (JIB) this concentration is designed to provide students with the knowledge and skills necessary to build a rewarding career in the biopharma industry while focusing on the commercialization of advanced medicines, including cell and gene therapies, recombinant vaccines and monoclonal antibodies. Additionally, students will gain an understanding of the production of biopharmaceuticals and biologics, their regulatory and quality-based requirements, and key commercialization strategies and analytics.

| Code | Title | Credits |
|-----------------|---------------------------------|---------|
| Required | | |
| ENGR 621 | Intro Biopharm & Biologics Prod | 3 |
| ENGR 619 | Biopharm & Biologics | 3 |
| ENGR 620 | Biopharm Commercialization | 3 |

Concentration: Cannabis Business

The concentration in Cannabis Business, designed in collaboration with the Jefferson Institute of Emerging Health Professions (IEHP) (<https://www.jefferson.edu/academics/colleges-schools-institutes/health-professions/emerging-health-professions.html>), will offer students opportunity to gain valuable insight and training needed to interpret and solve real-world problems within the cannabis industry. Students gain an understanding of the emerging issues in the cannabis industry, the cultural and social history of cannabis, cannabis laws and regulations, and major aspects of quality assurance and control in cannabis testing.

| Code | Title | Credits |
|--------------------------------|--------------------------------|---------|
| Required Courses | | |
| CBU 501 | Emerg Iss in Cannabis Industry | 3 |
| CCT 508 | Qual C&A in Med Cnbs Ana & Dis | 3 |
| Select three of the following: | | |
| CMD 503 | Path Poten Respon to Cannabis | |
| CMD 504 | Convent & Cannab Therap of Dis | |
| CMD 505 | Hlth Implicat of Med Cannabis | |
| CSC 512 | Forensic Analysis of Cannabis | |
| CMD 513 | Course CMD 513 Not Found | |
| IMBA 759 | Entrepreneurship | |
| Internship (approved by PD) | | |
| Elective | | |
| Select one of the following: | | |
| CMD 503 | Path Poten Respon to Cannabis | |
| CMD 504 | Convent & Cannab Therap of Dis | |
| CMD 505 | Hlth Implicat of Med Cannabis | |
| CSC 511 | Botany and Chem of Cannabis | |

| Code | Title | Credits |
|-----------------------------|-------------------------------|---------|
| CSC 512 | Forensic Analysis of Cannabis | |
| CSC 513 | Cannabinoid Pharmacology | |
| IMBA 759 | Entrepreneurship | |
| Internship (approved by PD) | | |

Concentration: Fashion Business

Build specialized skills to help prepare for careers in the fashion design, merchandising, management and other global fashion industries.

| Code | Title | Credits |
|------------------------------|--------------------------------|---------|
| Required | | |
| GFE 600 | Fashion Immersion | 3 |
| Select two of the following: | | |
| IMBA 791 | Course IMBA 791 Not Found | |
| GFE 729 | Product Lifecycle Management | |
| IMBA 759 | Entrepreneurship | |
| GFE 621 | Fashion Global Mktg & Sourcing | |
| GFE 734 | Fashion Supply Chain Mgmt | |

Concentration: Finance (CFA Preparation)

The CFA Preparation concentration is designed for those seeking the Chartered Financial Analyst designation who have an undergraduate finance background. The MBA-CFA Preparation option provides students with tailored finance courses and CFA Level 1 exam preparation, in addition to the core MBA curriculum. This is offered in partnership with the Philadelphia Chartered Financial Analyst Society.

| Code | Title | Credits |
|--|---------------------------|---------|
| Required | | |
| IMBA 772 | Course IMBA 772 Not Found | 3 |
| IMBA 776 | Course IMBA 776 Not Found | 3 |
| IMBA 777 | Course IMBA 777 Not Found | 3 |
| Philadelphia CFA Society CFA Review Course | | 0 |

Concentration: Leadership

Designed to develop the specialized management skills to lead interdisciplinary teams, this concentration prepares students for leadership roles and focuses on business strategy. With a focus on effective professional communication and methods for moving teams toward a common goal, the management program prepares for an array of managerial roles.

| Code | Title | Credits |
|-----------------|--------------------------------|---------|
| Required | | |
| IMBA 625 | Comm,negotiatn, Creatv Economy | 3 |
| IMBA 759 | Entrepreneurship | 3 |
| IMBA 791 | Course IMBA 791 Not Found | 3 |
| or IMBA 714 | New Product Development | |

Concentration: Marketing

Designed for students who have undergraduate experience in areas like business management and fashion merchandising, this concentration provides insight to better understand consumer behavior and develops skills to analyze demand and market segments.

| Code | Title | Credits |
|-----------------|---------------------------|---------|
| Required | | |
| IMBA 762 | Course IMBA 762 Not Found | 3 |
| IMBA 761 | Promotion Management | 3 |
| IMBA 791 | Course IMBA 791 Not Found | 3 |
| or IMBA 714 | New Product Development | |

Concentration: Real Estate Development

The concentration in Real Estate Development, designed in collaboration with College of Architecture and Built Environment, introduces the economic, social and physical issues inherent in environmentally and fiscally sustainable real estate and land-use development. Through real-world case studies presented by leading developers, coursework encompasses market analysis and valuation, finance and investment, legal issues of ownership and land-use, public-private partnerships, urban regeneration and adaptive reuse, construction science and management

| Code | Title | Credits |
|------------------------------|--------------------------------|---------|
| Required | | |
| MRE 601 | Sustain Real Estate Dev Proc | 3 |
| Select two of the following: | | 6 |
| MRE 604 | CS: Mixed Use, Comm, Hlth Care | |
| MRE 615 | Real Estate Fin & Investment | |
| MRE 620 | Case Study Studio:UrbanRevital | |
| MRE 625 | Real Estate Law & Eth Pract | |
| MRE 630 | Market Analysis and Valuation | |
| MRE 638 | Case Study:Sust Afford Housing | |
| TAX 789 | Real Estate Taxation | |

Organizational Change Management (Graduate Certificate)

Associate Dean: Allison Keene, EdD

Program Description

Organizational change management trains and prepares leaders to manage in an ever-changing world. Change managers respond to large scale business needs, fluctuations and volatility as well the promotion of an ideal working culture that maximizes growth and development opportunities. By exploring your own role in an organization and understanding the hierarchy of power that exists, students can work towards developing a sustainable change model that combines organizational change theories with the power of persuasion and planning to create an evidence-based approach to creating buy-in from various stakeholders to be effective change managers.

Academic Outcomes

- Examine the role of decision-makers, power relationships, influencers, and networks within an organization
- Analyze key financial, customer, employee and process-oriented metrics to inform business planning and future positioning

Curriculum: 12 credits

- Continuing & Professional Studies

| Code | Title | Credits |
|------------------------|--------------------------------|---------|
| Required | | |
| LDSP 590 | Organizational Awareness | 3 |
| LDSP 610 | Organizational Performance Met | 3 |
| Select One | | |
| LDSP 510 | Team Dynamics and Collaboratio | 3 |
| LDSP 515 | Org. Innovation, Creat & Chnge | 3 |
| LDSP 520 | Strat. Ldrshp in a VUCA World | 3 |
| Electives (Select One) | | |
| LDSP 620 | Global Leadership | 3 |
| LDSP 630 | Systems & Design Thinking | 3 |
| IMBX 731 | Design Thinking in Business | 3 |
| LDSP 640 | Conflict & Negotiation in Orgs | 3 |
| OPX 520 | Change Management | 3 |
| OPX 525 | Executing Lean Improvements | 3 |
| OPX 531 | Evaluating Healthcare Orgs | 3 |
| OPX 535 | Strategic Execution | 3 |

Organizational Leadership (BS)

Associate Dean: Allison Keene, EdD

Program Description

- School of Business: Continuing & Professional Studies

In the BS in Organizational Leadership students learn how organizations function at the interpersonal, team, and organizational levels. The focus is on leading creative and innovative organizations with emotional intelligence, confidence, and integrity. The major requirements are designed to enable students both to improve organizational effectiveness and to be aware of their personal formation and development as leaders.

Curriculum: 120 credits

- School of Business: Continuing & Professional Studies, Accelerated Program

| Code | Title | Credits |
|------------------------------------|--------------------------------|---------|
| CPS General Education Requirements | | |
| Written Communication Elective | | 3 |
| Written Communication Elective | | 3 |
| Math Elective | | 3 |
| Science Elective | | 3 |
| COMX 220 | Speak to Lead in Digital Age | 3 |
| PHLX 222 | Applied Professional Ethics | 3 |
| Social Science Elective | | 3 |
| Foundation Requirements | | |
| CSSX 101 | Learning Across the Lifespan | 3 |
| FINX 201 | Acct & Fin for Nonfin Leaders | 3 |
| HRMX 201 | Intro to HR Management | 3 |
| Creativity & Leadership Core | | |
| CLCX 310 | Creativity Fnds & Applications | 3 |

| Code | Title | Credits |
|--------------------|-------------------------------|---------|
| CLCX 330 | Project Management | 3 |
| CLCX 340 | Leading Diverse Organizations | 3 |
| CLCX 350 | Creative Leadership | 3 |
| CLCX 360 | Leadership in the Digital Age | 3 |
| Major Requirements | | |
| LDSP 361 | Leadership Theory & Practice | 3 |
| LDSX 365 | Behavioral Dynamics in Orgs | 3 |
| LDSX 368 | Org. Theory & Development | 3 |
| LDSX 375 | Leadership Development | 3 |
| LDSX 498 | Org. Leadership Capstone | 3 |
| General Elective | | 60 |

Organizational Leadership (BS)

Associate Dean: Allison Keene, EdD

Program Description

- School of Business: Continuing & Professional Studies

In the BS in Organizational Leadership students learn how organizations function at the interpersonal, team, and organizational levels. The focus is on leading creative and innovative organizations with emotional intelligence, confidence, and integrity. The major requirements are designed to enable students both to improve organizational effectiveness and to be aware of their personal formation and development as leaders.

| Code | Title | Credits |
|---------|--------------------------|---------|
| BIO 202 | Anatomy&Physiology I Lab | 1 |

Curriculum: 120 credits

- School of Business: Continuing & Professional Studies, Accelerated Program

Organizational Leadership (MS)

Associate Dean: Allison Keene, EdD

Program Description

- School of Business: Continuing & Professional Studies

The Master of Science in Organizational Leadership (MSOL) prepares professionals from diverse career backgrounds to innovate and ascend to senior-level leadership roles within their organization. Taught by a faculty of industry experts, students in the MSOL program will learn how to manage and institute change, develop and utilize performance metrics, create stakeholder buy-in at all levels, and other areas pertinent to business organizations. As the demand for leaders who are prepared to handle uncertainty, complexity and ambiguity increases, the MSOL program meets those needs by providing education that embraces a volatile environment by teaching necessary skills to meet complexity head on.

Program Learning Outcomes

- Apply concepts in organizational dynamics, team dynamics, and systems thinking in order to promote the development of a learning

- organization capable of effective communication, managing conflict, creating innovation, and adaptation
- Articulate knowledge and application of best practices in leadership, team building, cultural competence and ethical leadership in support of building one's professional identity
- Evaluate the impact volatility, uncertainty, complexity, and ambiguity have on an organization and strategize opportunities for responsive organizational innovation
- Develop executive communication skills, both oral and written, that focus on the clear and concise delivery of content and ideas to inform and engage all stakeholders across an organization in working towards satisfying organizational goals

Curriculum: 36 credits (2023 Fall Start)

- Continuing & Professional Studies, Accelerated Program

| Code | Title | Credits |
|---|--------------------------------|---------|
| Domain I: Leadership Skills & Knowledge | | |
| LDSP 510 | Team Dynamics and Collaboratio | 3 |
| LDSP 515 | Org. Innovation, Creat & Chnge | 3 |
| LDSP 520 | Strat. Ldrshp in a VUCA World | 3 |
| Domain II: Organizational Knowledge | | |
| LDSP 580 | HR & Employee Development | 3 |
| LDSP 590 | Organizational Awareness | 3 |
| LDSP 605 | Leading in the Digital Age | 3 |
| LDSP 610 | Organizational Performance Met | 3 |
| Domain III: OP Concentration | | |
| LDSP 620 | Global Leadership | 3 |
| LDSP 625 | Organizational Consulting I | 3 |
| LDSP 630 | Systems & Design Thinking | 3 |
| LDSP 640 | Conflict & Negotiation in Orgs | 3 |
| LDSP 699 | Capstone | 3 |

Curriculum (Spring, 2024 Start)

| Code | Title | Credits |
|--|--------------------------------|---------|
| Major Core | | |
| LDSP 510 | Team Dynamics and Collaboratio | 3 |
| LDSP 515 | Org. Innovation, Creat & Chnge | 3 |
| LDSP 520 | Strat. Ldrshp in a VUCA World | 3 |
| LDSP 699 | Capstone | 3 |
| HR Leadership Concentration | | |
| LDSP 580 | HR & Employee Development | 3 |
| LDSP 610 | Organizational Performance Met | 3 |
| LDSP 640 | Conflict & Negotiation in Orgs | 3 |
| Electives (Select One) | | |
| LDSP 590 | Organizational Awareness | 3 |
| LDSP 620 | Global Leadership | 3 |
| POP 544 | New Models & Employee Hlthcare | 3 |
| POP 545 | Pop Health Law for Employers | 3 |
| Organizational Change Management Concentration | | |
| LDSP 580 | HR & Employee Development | 3 |
| LDSP 610 | Organizational Performance Met | 3 |
| Elective (select One) | | |

| Code | Title | Credits |
|--|--------------------------------|---------|
| LDSP 620 | Global Leadership | 3 |
| LDSP 640 | Conflict & Negotiation in Orgs | 3 |
| IMBX 731 | Design Thinking in Business | 3 |
| OPX 520 | Change Management | 3 |
| OPX 525 | Executing Lean Improvements | 3 |
| OPX 531 | Evaluating Healthcare Orgs | 3 |
| OPX 535 | Strategic Execution | 3 |
| Healthcare Leadership Concentration | | |
| LDSP 610 | Organizational Performance Met | 3 |
| LDSP 640 | Conflict & Negotiation in Orgs | 3 |
| Elective (Select One) | | |
| POP 500 | Essentials of PopulationHealth | 3 |
| LDSP 580 | HR & Employee Development | 3 |
| LDSP 590 | Organizational Awareness | 3 |
| IMBX 731 | Design Thinking in Business | 3 |
| POP 510 | Health Econ, Risk, & Finance | 3 |
| PHP 504 | Pharm Informatics&Hlthcre Data | 3 |
| AHE 506 | SubjectiveOutcomesHealthEval | 3 |
| HCMD 602 | Course HCMD 602 Not Found | 3 |
| HDS 532 | Data Visualization | 3 |
| OPX 530 | Appl Lead Strat for Eff Change | 3 |
| OPX 535 | Strategic Execution | 3 |
| Diversity, Equity and Inclusion for Healthcare Leaders | | |
| LDSP 620 | Global Leadership | 3 |
| HPL 511 | PolAppr to Addr SocDet of Hlth | 3 |
| Elective (Select One) | | |
| PBH 501 | Foundations of Public Health | 3 |
| HPL 505 | Legis, Exec, & Reg Processes | 3 |
| PBH 502 | Society,Behavior&Environment | 3 |
| PBH 507 | Fundamentals of Environ Health | 3 |
| PBH 515 | Cultural Humility & Competence | 3 |
| PBH 603 | Substance Use | 3 |
| LDSP 590 | Organizational Awareness | 3 |
| HPL 515 | Refugee & Migrant Health | 3 |
| Consulting Concentration | | |
| LDSP 625 | Organizational Consulting I | 3 |
| LDSP 610 | Organizational Performance Met | 3 |
| Elective (Select One) | | |
| LDSP 580 | HR & Employee Development | 3 |
| LDSP 620 | Global Leadership | 3 |
| IMBA 625 | Comm,negotiatn, Creatv Economy | 3 |
| LDSP 640 | Conflict & Negotiation in Orgs | 3 |
| LDSP 590 | Organizational Awareness | 3 |
| IMBX 604 | Business Model Innovation | 3 |
| Brand Management Concentration | | |
| IMBX 731 | Design Thinking in Business | 3 |
| IMBX 761 | Promotion Management | 3 |
| Elective (Select One) | | |
| IMBX 604 | Business Model Innovation | 3 |
| LDSP 590 | Organizational Awareness | 3 |
| LDSP 610 | Organizational Performance Met | 3 |

| Code | Title | Credits |
|--|--------------------------------|---------|
| LDSP 620 | Global Leadership | 3 |
| LDSP 625 | Organizational Consulting I | 3 |
| Effective Organizational Communication | | |
| IMBX 627 | Competitive Tech Intelligence | 3 |
| LDSP 640 | Conflict & Negotiation in Orgs | 3 |
| Elective (Select One) | | |
| LDSP 620 | Global Leadership | 3 |
| IMBX 625 | Comm,Negotiatn, Creatv Economy | 3 |
| HPL 513 | Eff Commun & Dissemin of Data | 3 |
| HCMD 501 | Course HCMD 501 Not Found | 1.5 |
| HCMD 502 | Course HCMD 502 Not Found | 1.5 |
| Transformational Leadership | | |
| IMBX 627 | Competitive Tech Intelligence | 3 |
| LDSP 620 | Global Leadership | 3 |
| Elective (Select One) | | |
| LDSP 610 | Organizational Performance Met | 3 |
| LDSP 640 | Conflict & Negotiation in Orgs | 3 |
| IMBX 642 | Strat Insight & Implementation | 3 |
| IMBX 731 | Design Thinking in Business | 3 |
| OPX 530 | Appl Lead Strat for Eff Change | 3 |
| IMBA 625 | Comm,negotiatn, Creatv Economy | 3 |

Strategic Leadership (DMgt)

Associate Dean: Allison Keene, EdD

This program is no longer accepting new applicants as it is currently being updated. Check our website for the latest updates on the new curriculum and when the application process will reopen.

Program Description

- Continuing & Professional Studies

Designed by doctoral students, faculty, corporate, government, and not-for-profit stakeholders, this distinctive systems/complexity-based Doctor of Management (DMgt) degree program uses conceptual, experiential and reflective learning to meet the complex educational and practice needs created by the ever-evolving workplace, rapid expansion of knowledge underlying practice, increased technological advances, and the cultural and geographic diversity of the global workplace. The DMgt in Strategic Leadership is a professional executive research degree that builds a community and network of adult professional students, faculty, scholars, and practitioners. Executive coaches and research mentors support doctoral students in leadership development, communication skills, and applied research formulation and delivery. The program enables development of leaders who can strategically and effectively navigate situational and organizational complexity, and who can apply tools leading to creative and innovative outcomes. Graduates of the program will have the competency to astutely identify new opportunities, help solve complex organizational problems, and meet the leadership needs of employers and society in the United States and abroad.

Curriculum: 45 credits

- Continuing & Professional Studies

| Code | Title | Credits |
|--|---------------------------------|---------|
| Conceptual Requirements | | |
| DSL 700 | S/Leadershp,Frameworks,Concepts | 3 |
| DSL 701 | Systems and Design Thinking | 3 |
| DSL 702 | Applied Research Methods I | 3 |
| DSL 704 | Complex Proj Leadership & Mgmt | 3 |
| DSL 706 | Applied Research Methods II | 3 |
| DSL 708 | Strategic Org Dev & Change | 3 |
| Project-Based Requirements | | |
| DSL 801 | Strategic Leadership Research | 3 |
| DSL 802 | Strat Leadership Executive Ed. | 3 |
| Conceptual Electives (Select 3) | | |
| DSL 703 | Military & Civilian S/Leadersh | 3 |
| DSL 705 | Enabling Info Techn and Tools | 3 |
| DSL 707 | Strategic Ldrsp Perspective | 3 |
| DSL 709 | Lding in the Digital Trans Age | 3 |
| DSL 713 | Patterns of Strategy | 3 |
| DSL 714 | Applied Survey ResearchMethds | 3 |
| Project-Based Elective (Select 2) | | |
| DSL 710 | Independent Advanced Study | 3 |
| DSL 711 | Special Topics | 3 |
| DSL 800 | Strategic Consulting | 3 |
| Dissertation | | |
| DSL 900 | Dissertation/Capstone Proposal | 3 |
| DSL 901 | Dissertation/Capstone Delivery | 3 |
| DSL 901E | Dissertation/Capstone Extens | 3 |

Taxation (MS)

Contacts

Program Director: John Grigsby, LLM, CFE, CFP, CPA, FHFMA

Email: John.Grigsby@jefferson.edu

215-951-2824

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/kanbar-college-of-design-engineering-commerce/school-of-business/academic-programs/ms-taxation.html>)

Program Description

- STEM designated program

Geared to practicing accountants in fields of public, corporate and governmental accounting, and to lawyers, financial managers and planners who need extensive information and formal study in taxation. The program is practitioner-focused and is strongly linked to business practice. Outstanding faculty members bring the highest level of expertise into the classroom. Students select courses from an innovative and state-of-the-art curriculum. Computer applications are integrated in the total curriculum where appropriate. All courses are taught based on the most up-to-date tax laws, and the implications of proposed changes in tax legislation are discussed.

Learning Goals/Outcomes

- Evaluate and apply fundamental accounting and tax principles, concepts and laws to a variety of business and non-business situations
- Demonstrate an understanding of professional responsibilities and ethical decision making in accounting and tax settings
- Master the ability to communicate in a clear, concise and effective manner in both written and oral form
- Demonstrate the ability to efficiently and effectively research and resolve complex tax issues by analyzing tax codes, regulations, rulings and interpretations
- Blend knowledge and skill sets from different disciplinary areas to develop effective business, tax and financial strategies.

Curriculum: 1-2 Years, 30 Credits

| Code | Title | Credits |
|---|-------------------------------|-----------|
| Core Curriculum | | |
| TAX 660 | Individual Taxation & Plann | 3 |
| TAX 662 | Corporation Taxation & Plann | 3 |
| TAX 664 | Tax Research & Profe Responsi | 3 |
| TAX 765 | Tax of Flow-Through Entities | 3 |
| TAX 794 | IRS Tax Procedures | 3 |
| TAX 795 | Estate Planning & Taxation | 3 |
| Designated Elective Courses in Taxation | | 12 |
| Total Credits | | 30 |

Transformational Leadership (Graduate Certificate)

Associate Dean: Allison Keene, EdD

Program Description

This Certificate in Transformational Leadership will develop the next generation of leaders by focusing on key areas of competency leaders need to possess: cultural competence, self-awareness, digital innovation, and strategic evaluation. Coursework will prepare, equip, and support students to become transformational leaders of change, driving organizational success and fostering diverse workplaces capable of meeting future challenges.

Academic Outcomes

- Develop a framework to analyze, assess and critique global leaders and evaluate how leaders are using technology to propel an organization's strategic vision forward
- Assess an organization's digital maturity and opportunities for future growth

Curriculum: 12 credits

- Continuing & Professional Studies

| Code | Title | Credits |
|------------|--------------------------------|---------|
| IMBX 627 | Competitive Tech Intelligence | 3 |
| LDSP 620 | Global Leadership | 3 |
| Select One | | |
| LDSP 510 | Team Dynamics and Collaboratio | 3 |

| Code | Title | Credits |
|-----------------------|--------------------------------|---------|
| LDSP 515 | Org. Innovation, Creat & Chnge | 3 |
| LDSP 520 | Strat. Ldrshp in a VUCA World | 3 |
| Elective (Select One) | | |
| LDSP 640 | Conflict & Negotiation in Orgs | 3 |
| LDSP 610 | Organizational Performance Met | 3 |
| IMBX 731 | Design Thinking in Business | 3 |
| IMBA 642 | Strat Insight & Implementation | 3 |
| OPX 530 | Appl Lead Strat for Eff Change | 3 |
| IMBA 625 | Comm,negotiatn, Creatv Economy | 3 |

- International Fashion Design (p. 222) (MS)
- Mechanical Engineering (p. 223) (BS)
- Surface Imaging (p. 224) (BS)
- Textile Design (p. 224) (BS)
- Textile Design (p. 225) (MS)
- Textile Design-Accelerated (p. 226) (BS/MS)
- Textile Engineering & Sciences (p. 226) (PhD)
- Textile Product Design (p. 227) (BS)
- Textile Technology(MS)
- User Experience & Interaction Design (p. 228) (MS)
- Visual Communication Design (p. 229) (BS)

School of Design & Engineering

Academic Dean: Michael J. Leonard

<https://www.jefferson.edu/academics/colleges-schools-institutes/kanbar-college-of-design-engineering-commerce/school-of-design-engineering.html> Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/kanbar-college-of-design-engineering-commerce/school-of-design-engineering.html>)

The School emphasizes in-depth exploration of individual design and engineering disciplines, while encouraging interdisciplinary communication and collaboration. Classes stress conceptual thinking, design excellence, intellectual curiosity and creative expression, combining a focused concentration on one particular field with a broad-based educational foundation that fosters critical thinking skills in a global context. This multi-tiered approach provides graduates with the knowledge and skills to navigate professional challenges successfully and to reap the rewards of leadership and success in their careers. The faculty of practicing professionals, state-of-the-art facilities, study abroad opportunities and collaborative approach to learning all contribute to creating a unique, intellectually stimulating environment that enables students to creatively meet the challenges of our fast-changing global marketplace.

Fashion and Textile Futures Center

Jefferson's premier center for fashion and textile programs immerses students in experiences that mirror industry: the Future Center provides forward-looking, market-sensitive, dynamic and highly collaborative environment. If you aspire to change the world through fashion and textiles, to rethink centuries of normal and wow employers with your ideas, you're going to love it here.

Academic Programs

- Animation & Digital Media (p. 216) (BS)
- Engineering (p. 217) (BSE)
- Engineering: Textile Concentration (p. 218) (MS)
- Fashion Design (p. 219) (BS)
- Global Textile Design (p. 220) (MS/MSc)
- Health Communication Design (<https://catalog.jefferson.edu/colleges-schools/kanbar-college-design-engineering-commerce-kanbar/school-design-engineering/health-communication-design-graduate-certificate/>) (Graduate Certificate)
- Health Communication Design (p. 220) (MS)
- Industrial Design (p. 221) (BS)
- Industrial Design (p. 222) (MS)

Animation & Digital Media (BS)

Contacts

Program Director: Jason Kirk

Email: Jason.Kirk@jefferson.edu
215-951-2913

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/kanbar-college-of-design-engineering-commerce/school-of-design-engineering/academic-programs/animation-digital-media.html>)

Program Description

The Animation & Digital Media program at Thomas Jefferson University provides students with access to industry leading animation tools and state of the art equipment in order to create animated content and digital assets for use in visually rich and immersive applications including film, television, interactivity, and other emerging media formats. Faculty with expertise in a diverse array of animation disciplines guide students as they accrue a deep understanding of animation fundamentals and professional practices while gaining exposure to several animation modalities including 2D, 3D, and Stop Motion. By emphasizing small class sizes in a simulated studio environment, students receive individualized attention that will prepare them for creatively competitive careers in an increasingly in-demand industry. As a graduate of the program, you will be equipped for leading creative roles in industries including film, television, visualization, and game development.

Learning Goals/Outcomes

- Competence with multiple industry standard tool sets ranging from traditional production to digital 2D and 3D animation.
- Understanding of animation production workflows & pipelines, scalable from independent projects to team-based productions.
- Exposure to film studies and timeline based narrative design.
- Experiences working as an integral member of a cooperative team in the classroom and through interdisciplinary projects.
- Create immersive and engaging digital content at a professional level.
- Focused engagement with liberal arts that reinforce student's abilities to represent themselves and communicate ideas effectively.
- Experience collaboration, including multidisciplinary collaboration, in solving design problems.
- Communicate effectively in a visual medium.

- Exercise creative problem solving and critical evaluation skills.
- Exhibit technical and creative competency at a high level.

Curriculum: 4 Year, 121-125 Credits

| Course | Title | Credits |
|----------------------|--------------------------------|----------------|
| First Year | | |
| FYS 100 | Pathways Seminar | 1 |
| WRIT 101 | Writing Sem I: Written Comm. | 3 |
| DBTU 114 | Debating U.S. Issues | 3 |
| MATH xxx | Math Selection I | 3-4 |
| MATH xxx | Math Selection II | 3-4 |
| VDES 101 | Design Essentials | 3 |
| DRAW 101 | Drawing Essentials | 3 |
| ANIM 201 | Introduction to Animation | 3 |
| GRPH 110 | Digital Imagn for Graphic Desg | 3 |
| GRPH 102 | Intro to Graphic Design | 3 |
| DECF 102 | Finding & Shaping Opportunity | 3 |
| Credits | | 31-33 |
| Second Year | | |
| GDIV 1XX | Global Diversity | 3 |
| WRIT 201 | Writing Seminar II: Multi Comm | 3 |
| ETHC 1XX | Ethics | 3 |
| GRPH 201 | Design III for Graph Dsgn Comm | 3 |
| ANIM 308N | 3D Animation | 4 |
| ANIM 202 | Storytelling/Storyboarding | 3 |
| ANIM 307 | 3D Modeling | 3 |
| DIGD 318 | Media Production | 3 |
| DRAW 206 | Drawing II: Figure Drawing | 3 |
| DEC 2XX | Systems (select one DECSYS) | 3 |
| DECF 200 | Business Models | 3 |
| Credits | | 34 |
| Third Year | | |
| ADIV 1XX | American Diversity | 3 |
| GCIT 2XX | Global Citizenship | 3 |
| CGIS 300 | Contemporary Global Issues | 3 |
| DECM 300 | Research Methods | 3 |
| ANIM 301Z | Motion Graphics I | 3 |
| ANIM 312 | Motion Graphics II | 3 |
| ANIM 318 | 3D Animation II | 3 |
| ANIM 303 | History of Animated Cinema | 3 |
| ANIM 310 | Digital Audio Production | 3 |
| Animation Elective | | 3 |
| Credits | | 30 |
| Fourth Year | | |
| ANIM 407Z | Advanced Topic in 3D Animation | 3 |
| DIGD 370 | Portfolio Development Seminar | 1 |
| ANIM 497Z | Animation Capstone I | 4 |
| ANIM 499Z | Animation Capstone II | 4 |
| Animation Electives | | 4 |
| General Electives | | 6 |
| BLAW 301 | Business Law | 3 |
| Credits | | 25 |
| Total Credits | | 120-122 |

Brand Management (Graduate Certificate)

Associate Dean: Allison Keene, EdD

Program Description

For organizational leaders, managing the company's brand is vital to ensuring organizational growth opportunities, meeting target goals and attracting top talent. This Graduate Certificate in Brand Management combines business acumen and foundational marketing techniques with the broader concept of systems design to develop a student's ability to assess, analyze and execute an organization's mission, vision and values based on organizational strengths, weaknesses, opportunities and threats.

Academic Outcomes

- Analyze the laws of systems thinking and apply best practices for implementation by organizational leaders
- Develop business acumen: assess an organization for strengths, weaknesses, opportunities and threats with the ultimate goal of recommending future marketing strategies that align with the company's mission, vision and values

Curriculum: 12 credits

- Continuing & Professional Studies, Accelerated Program

| Code | Title | Credits |
|------------------------------|--------------------------------|---------|
| Required | | |
| IMBX 713 | Course IMBX 713 Not Found | 3 |
| IMBA 761 | Promotion Management | 3 |
| Select One | | |
| LDSP 510 | Team Dynamics and Collaboratio | |
| LDSP 515 | Org. Innovation, Creat & Chnge | |
| LDSP 520 | Strat. Ldrshp in a VUCA World | |
| Elective (Select One) | | |
| IMBX 604 | Business Model Innovation | |
| IMBX 731 | Design Thinking in Business | |
| LDSP 590 | Organizational Awareness | |
| LDSP 610 | Organizational Performance Met | |
| LDSP 620 | Global Leadership | |
| LDSP 625 | Organizational Consulting I | |

Engineering (BSE)

Contacts

Program Director: Brian George, PhD

Email: Brian.George@jefferson.edu
215-951-2782

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/kanbar-college-of-design-engineering-commerce/school-of-design-engineering/academic-programs/engineering.html>)

Program Description

- STEM designated Program

The BSE Engineering program at Jefferson is accredited by the Engineering Accreditation Commission of ABET. The program prepares graduates with a breadth of engineering skills and knowledge while developing specific expertise and analytical skills in an area of technical

concentration, including Industrial and Systems Engineering, Textile Engineering, or Bioprocess Engineering. Through applied coursework culminating in a two-semester senior design project, the graduates gain hands-on, practical experience to obtain professional licensure, succeed in the industry, or pursue graduate studies.

Learning Goals/Outcomes

- an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
- an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
- an ability to communicate effectively with a range of audiences
- an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
- an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
- an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
- an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

Curriculum: 4 Years, 127.5 - 128.5 Credits

| Course | Title | Credits |
|--------------------|--------------------------------|-----------|
| First Year | | |
| FYS 100 | Pathways Seminar | 1 |
| AVIS 101 | American Visions | 3 |
| WRIT 101 | Writing Sem I: Written Comm. | 3 |
| CHEM 103 | Chemistry I | 3 |
| CHEM 103L | Chemistry I Lab | 1 |
| MATH 111 | Calculus I | 4 |
| MATH 112 | Calculus II | 4 |
| DECF 102 | Finding & Shaping Opportunity | 3 |
| ENGR 101 | Introduction to Engineering | 3 |
| ENGR 104 | Introduction to Computing | 3 |
| ENGR 102 | Engineering Drawing | 3 |
| PHYC 201 | Physics I | 3 |
| PHYC 201L | Physics I Lab | 1 |
| Credits | | 35 |
| Second Year | | |
| ADIV 2XX | American Diversity Placeholder | 3 |
| WRIT 201 | Writing Seminar II: Multi Comm | 3 |
| DECS 2XX | DECSYS Placeholder | 3 |
| PHYC 203 | Phys II: Waves, Elec, & Mag | 3 |
| PHYS 203L | Physics II Lab | 1 |
| MATH 213 | Calculus III | 4 |
| ENGR 215 | Engineering Statics | 3 |
| ENGR 305 | Engineering Statistics | 3 |
| MATH 225 | Differential Equations | 3 |
| ENGR 218 | Engineering Dynamics | 3 |
| ENGR 301 | Mechanics of Materials | 3 |
| Credits | | 32 |

| Course | Title | Credits |
|-----------------------------|--|--------------|
| Third Year | | |
| GDIV 2XX | Global Diversity Placeholder | 3 |
| ENGR 311 | Fluid Mechanics | 3 |
| ENGR 322 | Fund. of Elect. Engineering I | 3 |
| ENGR 210 or ENGR 304 | Intro to Materials Science or Operations Research I | 3 |
| ENGR 308 | Integrated Engr Product Dev. I | 3 |
| ENGR 314 | Numerical Meths for Engineers | 3 |
| ENGR 405 | Engineering Simulations | 3 |
| MENG 407 | Thermodynamics | 3 |
| Engr. Concentration Courses | | 6 |
| ENGR 399 | Engineering Design Seminar | 0.5 |
| Credits | | 30.5 |
| Fourth Year | | |
| ETHC 2XX | Ethics Course Placeholder | 3 |
| CGIS 300 | Contemporary Global Issues | 3 |
| PHIL 499 | Philosophies of the Good Life | 3 |
| DECM 300 | Research Methods | 3 |
| ENGR 498 | Senior Design Project I | 3 |
| MENG 405 | Intro to Mechatronics | 3 |
| ENGR 303 | Engineering Economics | 3 |
| ENGR 499 | Senior Design Project II | 3 |
| Engr. Concentration Courses | | 6 |
| Credits | | 30 |
| Total Credits | | 127.5 |

Engineering: Textile Concentration (MS) Contacts

Program Director: Ryan Masoodi, PhD

Email: Ryan.Masoodi@jefferson.edu

215-951-2782

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/kanbar-college-of-design-engineering-commerce/school-of-design-engineering/academic-programs/engineering/specializations.html>)

Program Description

- **STEM designated program**

This program is intended to develop the graduate student's knowledge in the advanced fields of textile science and engineering. Students with undergraduate education in the fields of textile engineering, textile chemistry and textile sciences, and those with undergraduate experience in engineering or materials technology are welcome to pursue this program. The wide range of textile engineering courses will prepare the student to make significant contributions in either advanced textile manufacturing technology or textiles material science. The carefully integrated educational offerings at the University enable the student to be exposed to a wide range of professional education possibilities. A capstone experience is provided during the final semester.

Learning Goals/Outcomes

- Demonstrate knowledge & proficiency in technical aspects of textile engineering

- Analyze and criticize established textile theories and synthesize new theories.
- Understand and evaluate engineering theory
- Apply their acquired skills toward the development of a unique research project
- Demonstrate a competent knowledge and proficiency in the field of textile engineering
- Perform written and oral technical communications at a competent level

Curriculum: 2 Years, 30 Credits

- For students matriculating in the MS Textile Engineering program with no undergraduate background in textiles, a group of foundation courses may be required. The foundation courses will be determined at the time of admission by the program director.
- Students select 8 courses from TEXT or ENGR options
- TEXT 603, TEXT 721, TEXT 940, ENGR 624, (Required)

| Code | Title | Credits |
|-------------------------------|--------------------------------|---------|
| Core Curriculum | | |
| Select nine of the following: | | 27 |
| TEXT 601 | Fiber and Yarn Studies | 3 |
| TEXT 602 | Textile Sustainability | 3 |
| TEXT 603 | Adv Integ Engg Product Develop | 3 |
| TEXT 613 | Characterization Fibrous Mtrls | 3 |
| TEXT 621 | Mechanics of Materials | 3 |
| TEXT 622 | Mechanics of Textiles | 3 |
| TEXT 624 | Advanced Textile Composites | 3 |
| TEXT 625 | Biomaterials Technology | 3 |
| TEXT 713 | Coloration & Finishing Studies | 3 |
| TEXT 721 | Analytical Methods | 3 |
| TEXT 751 | Adv Woven Structures Prod Dev | 3 |
| TEXT 752 | Advanced Knitted Structures | 3 |
| TEXT 753 | Adv Nonwoven Structur Prod Dev | 3 |
| TEXT 754 | Indstrl,Specialty Fab Prod Dev | 3 |
| TEXT 759 | Product Evaluation | 3 |
| TEXT 762 | Tex, Appr Operatns Mgt | 3 |
| TEXT 783 | Chem of Fibrous Matrls | 3 |
| TEXT 790 | Quality Management | 3 |
| TEXT 797 | Selected Topics | 3 |
| TEXT 798 | Independent Study | 3 |
| TEXT 940 | Research Thesis | 6 |
| ENGR 623 | Intro to Life Cycle Analysis | 3 |
| ENGR 624 | Lean Manufacturing | 3 |

Fashion Design (BS)

Contacts

Program Director: Farai Simoyi
Email: Farai.Simoyi@jefferson.edu
215-951-0842

Campus: East Falls
Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/kanbar-college-of-design-engineering-commerce/>)

school-of-design-engineering/academic-programs/fashion-design.html)

Program Description

The fashion design program at Thomas Jefferson University is globally recognized for its team-oriented designers who understand the interrelationship of design, production and commerce while creatively answering the ever-changing needs of the fashion marketplace. As an integral part of the College of Design, Engineering and Commerce, fashion designers work on industry-related and interdisciplinary projects to develop sophisticated and unique solutions to challenging problems.

Learning Goals/Outcomes

- Apply conceptual and critical thinking skills to demonstrate the theoretical foundation of the profession
- Perform a broad base of technical skills and technology required of the profession
- Utilize quantitative reasoning and verbal, written and visual skills effectively
- Demonstrate understanding of business practice and ethics
- Possess skills to make contributions to the global fashion industry
- Examine global & cultural issues as they affect the world.

Curriculum: 4 Years, 121-124 Credits

| Course | Title | Credits |
|--------------------|--------------------------------|--------------|
| First Year | | |
| FYS 100 | Pathways Seminar | 1 |
| WRIT 101 | Writing Sem I: Written Comm. | 3 |
| AMST 114 | Course AMST 114 Not Found | 3 |
| MATH1XX | Mathematics | 3-4 |
| FASD 111 | Studio I | 3 |
| DRAW 101 | Drawing Essentials | 3 |
| FASD 252 | Fashion Design Research | 3 |
| DRAW 206 | Drawing II: Figure Drawing | 3 |
| TEXT 101 | Survey of Textile Industry | 3 |
| ARTH 102 | History of Western Art II | 3 |
| DECF 102 | Finding & Shaping Opportunity | 3 |
| Credits | | 31-32 |
| Second Year | | |
| WRIT 201 | Writing Seminar II: Multi Comm | 3 |
| GDIV 2XX | Global Diversity | 3 |
| SCI 2XX | Scientific Understanding | 3 |
| ARTH 314 | History of Textiles & Costumes | 3 |
| ADIV 2XX | American Diversity | 3 |
| FASD 211 | Studio II | 3 |
| FASR 207 | Fashion/Figure Drawing | 3 |
| CAD 204 | Digital Fashion Design I | 3 |
| FASD 213 | Studio III | 3 |
| FASD 205 | Fashion Designers 20th Centur | 1 |
| DECS 2XX | Systems: DECS course | 3 |
| Credits | | 31 |
| Third Year | | |
| ETHC 2XX | Ethics | 3 |
| GCIT 2XX | Global Citizenship | 3 |
| CGIS 300 | Contemporary Global Issues | 3 |
| DECM 300 | Research Methods | 3 |
| FASD 311 | Studio IV | 3 |
| FASD 316 | Fashion Design Development | 3 |

| Course | Title | Credits |
|--|--------------------------------|----------------|
| FASD 322 | Sustain Concepts for FD I | 3 |
| FASD 335 | Studio V | 3 |
| FASD 300 | Technical Design | 3 |
| Credits | | 27 |
| Fourth Year | | |
| PHIL 499 | Philosophies of the Good Life | 3 |
| TEXT 331 | Apparel Fabric Performance | 3 |
| FASD 415 | Studio VI | 4 |
| FASD 416 | Studio VII | 4 |
| CAD 302 | Course CAD 302 Not Found | 3 |
| FASD 433 | Fashion Layout & Portfolio Dev | 3 |
| Select one of the following Designated FD Electives: | | 3 |
| FASD 315 | Digital Fashion Design II | |
| FASD 317 | Hand Knitting for Fash Desg | |
| FASR 317 | Fashion Illustration I | |
| FASR 319 | Fashion Illustration II | |
| FASD 419 | Accessories | |
| General Electives | | 9 |
| Credits | | 32 |
| Total Credits | | 121-122 |

Global Textile Design (MS/MSc)

Contacts

Program Director: Marcia Weiss

Email: Marcia.Weiss@Jefferson.edu

215-951-2762

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/kanbar-college-of-design-engineering-commerce/school-of-design-engineering/academic-programs/ms-global-textile-design.html>)

Program Description

- **STEM** designated program

This world-leading MS/MSc joint degree program is presented by two of the world's oldest and most esteemed textile institutions: Thomas Jefferson University (USA) and Heriot-Watt University (UK).

In the textile, fashion, interiors and related fields, there is established interest and importance placed on design sustainability, artisanal heritage and entrepreneurship. The think global/live local movement emphasizes a return to artisanal roots through ethical sourcing and reconnecting with handwork interfaced with technology. Maker spaces proliferate where artisanal skills are celebrated, and resources are shared. This program provides context for designing in a global market where people want to understand the heritage of their products and purchases.

Through this innovative program, with semesters in Philadelphia, Pennsylvania USA and Galashiels, Scotland UK, students will be immersed in the global textile design market, enabling them to develop both their technical and artisanal skills for foremost industry or entrepreneurial ventures. Students will have unprecedented access to extend and expand their professional networks through involvement with global trade fairs, access to famed archives and placement into premiere textile design industry internships.

Learning Goals/Outcomes

- Develop an understanding of international perspectives and issues relating to design, global textiles and artisanal heritage.
- Appreciate the diversity of expertise, skill, trends and archival inspiration in the global textile field.
- Develop technical and creative skills for prototyping and visualizing textile design ideas.
- Critically evaluate a range of techniques and processes within a selected field and progress ideas in response.
- Understand the relationship between design product and market segmentation.
- Synthesize contextual issues with research and processes to develop an individual direction.
- Apply visual research and technical skills to create a final textile body of work.

Curriculum: 18 Months, 35 Credits (USA) and 210 (HWU)

| Course | Title | Credits |
|------------------------------|-----------------------------|-----------|
| First Year | | |
| Fall | | |
| East Falls Campus | | |
| XXX | Textile Design Management | 3 |
| XXX | Global Textile Heritage | 3 |
| XXX | Textile Design Ideation | 3 |
| Credits | | 9 |
| Spring | | |
| Spring I (7 weeks) | | |
| East Falls Campus: | | |
| XXX | Research Methods | 3 |
| XXX | Global Textile Artisanship | 3 |
| Spring II (7 weeks) | | |
| Harriot-Watt Scotland: | | |
| XXX | Textile Design & Production | 5 |
| Credits | | 11 |
| Summer | | |
| Locations vary | | |
| XXX | Textile Internship | 5 |
| Credits | | 5 |
| Second Year | | |
| Fall | | |
| Harriot-Watt Scotland | | |
| XXX | Masters Design Project | 10 |
| Credits | | 10 |
| Total Credits | | 35 |

Health Communication Design (MS)

Contacts

Program Director: Maribeth Kradel-Weitzel

Email: Maribeth.Kradel-Weitzel@jefferson.edu

215-951-2104

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/kanbar-college-of-design-engineering-commerce/>)

[school-of-design-engineering/academic-programs/ms-in-health-communication-design.html](https://www.jefferson.edu/school-of-design-engineering/academic-programs/ms-in-health-communication-design.html)

Program Description

The mission of the Health Communication Design program is to create a healthier world through clear, accessible and actionable communication design strategies. Through a series of themed, stackable certificates, delivered in a low-residency model, the MS in Health Communication Design equips students with theory and practice-based skills to address critical and complex health communication and design issues for individuals, communities, healthcare providers and policymakers. The program employs a human-centered process informed by user research, empathy, and a transdisciplinary, collaborative, multi-modal approach. Students can select a single themed certificate or complete two certificates plus a capstone to earn the MS in Health Communication Design, all delivered in a low-residency model.

Learning Goals/Outcomes

- Act as agents of lasting change at the intersection of health and design.
- Construct health communication research and solutions within an ethical framework.
- Create a personal approach for navigating the future of health communication work in an environment that is volatile, uncertain, complex and ambiguous.

Curriculum: Graduate Degree, 30 Credits

Complete Certificate 1 and Certificate 2 and:

| Code | Title | Credits |
|----------------------|--|----------|
| HCMD 606 | Course HCMD 606 Not Found ¹ | 1 |
| HCMD 605 | Course HCMD 605 Not Found | 6 |
| Total Credits | | 7 |

¹ Note that Capstone Preparation will substitute for one Skills Module within the second certificate earned.

Industrial Design (BS)

Contacts

Program Director: Tod Corlett, MS

Email: Tod.Corlett@Jefferson.edu

215-951-2551

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/kanbar-college-of-design-engineering-commerce/school-of-design-engineering/academic-programs/industrial-design.html>)

Program Description

- **STEM** designated program

Equips students to work with product users and other stakeholders to create attractive, meaningful and usable products and systems. The program prepares students to respond thoughtfully and creatively to challenges and opportunities presented by technological advances,

social development and cultural change. The strengths of the program are its interdisciplinary culture, the broad and deep expertise of the faculty, collaboration with industry, and engagement with the design community. Insights and unique collaborative project opportunities offer themselves to design students on a campus that hosts programs in related and relevant professions. Studio life is characterized by work dynamics found in design consultancies, corporate design departments, and entrepreneurial ventures.

Learning Goals/Outcomes

- To understand design as a human-centered inquiry informed by the liberal arts, the fine arts, business, engineering, and the sciences.
- To evolve the students' understanding of their own professional development in the context of local, national and global issues.
- To nurture critical thinking skills in which the intuitive, the analytical and the pragmatic elements of the design process are supported.
- To prepare students for interdisciplinary collaborations that embrace, synthesize and unify issues for the benefit of all stakeholders in the product innovation process.
- To engage the discourse on the industrial design profession's practice, history and current development.
- To impart the skillset required to produce professional deliverables and manage innovation processes effectively

Curriculum: 4 Years, 127-129 Credits

| Course | Title | Credits |
|--------------------|--------------------------------|--------------|
| First Year | | |
| FYS 100 | Pathways Seminar | 1 |
| WRIT 101 | Writing Sem I: Written Comm. | 3 |
| MATH 1XX | Mathematics Placeholder | 3-4 |
| AVIS 101 | American Visions | 3 |
| INDD 101 | Design 1 for Industrial Design | 4 |
| INDD 102 | Design 2: Industrial Design | 4 |
| INDD 106 | Materials & Processes Fab | 3 |
| INDD 206 | CAD I for Industrial Design | 3 |
| INDD 107 | Vis for Industrial Design I | 3 |
| INDD 108 | Vis for Industrial Design II | 3 |
| PHYC 201 | Physics I | 3 |
| Credits | | 33-34 |
| Second Year | | |
| ETHC 1XX | Ethics Course Placeholder | 3 |
| WRIT 201 | Writing Seminar II: Multi Comm | 3 |
| GDIV 1XX | Global Diversity Placeholder | 3 |
| INDD 201 | Design 3: Industrial Design | 4 |
| INDD 202 | Design 4: Industrial Design | 4 |
| INDD 207 | Mats & Proc: Manufacturing | 3 |
| DECF 102 | Finding & Shaping Opportunity | 3 |
| ARTH 103 | A Survey of the History of Art | 3 |
| INDD 206 | CAD I for Industrial Design | 3 |
| INDD 324 | History of Design & Comm | 3 |
| Credits | | 32 |
| Third Year | | |
| GCIT 2XX | Global Citizenship Placeholder | 3 |
| ADIV 2XX | American Diversity Placeholder | 3 |
| CGIS 300 | Contemporary Global Issues | 3 |

| Course | Title | Credits |
|---|-------------------------------|----------------|
| DECS 2XX | DECSYS Placeholder | 3 |
| DECM 300 | Research Methods | 3 |
| INDD 301 | Design 5: Industrial Design | 4 |
| General Elective | | 3 |
| INDD 210 | Ergonomic Studies | 3 |
| INDD 302 | Design 6: Industrial Design | 6 |
| INDD 304 | Design History/Theory | 3 |
| Credits | | 34 |
| Fourth Year | | |
| General Electives | | 3 |
| PHIL 499 | Philosophies of the Good Life | 3 |
| Design Electives for Exploration or Concentration | | 9 |
| INDD 401 | Design 7: Industrial Design | 6 |
| INDD 402 | Design 8: ID Capstone | 6 |
| Art/Design History/Theory Elective | | 3 |
| Credits | | 30 |
| Total Credits | | 129-130 |

Industrial Design (MS)

Contacts

Program Director: Tod Corlett, MS

Email: Tod.Corlett@Jefferson.edu

215-951-2551

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/kanbar-college-of-design-engineering-commerce/school-of-design-engineering/academic-programs/ms-industrial-design.html>)

Program Description

- **STEM** designated program

MS in Industrial Design is a professional program based on interdisciplinary project work. In this program, you will learn to design effectively at the collaborative and chaotic "front end" of the product-development process. You will work with product users, researchers, businesspeople, engineers and manufacturers to create products and systems that are better at serving their users, societies and the world at large.

Learning Goals/Outcomes

- Informing design through creative research into user needs
- Working closely with business, engineering and other disciplines to design platforms and systems- not just isolated objects
- Designing intelligent products for the "internet of things," integrating hardware, software and electronic interactivity
- Understanding and designing for global societies
- Prepare graduates for entrepreneurial work in the field, or for a position in a corporate design department or design-consulting firm.

Curriculum: 2 Years, 34-58 Credits

Advanced Standing (AS) awarded for courses (INDD 500, INDD 501, INDD 506, INDD 503, INDD 507, INDD 510, INDD 704) based on portfolio review during application. Minimum pr

| Course | Title | Credits |
|----------------------|--------------------------------|-----------|
| First Year | | |
| INDD 500 | Skills & Methods for Ind Dsgn | 3 |
| INDD 501 | Design 1 for Industrial Design | 4 |
| INDD 506 | CAD I for Industrial Design | 3 |
| INDD 503 | Vis for Industrial Design I | 3 |
| INDD 507 | Mats & Proc: Manufacturing | 3 |
| INDD 510 | Ergonomic Studies | 3 |
| INDD 703 | User Centered Design | 4 |
| INDD 700 | Research & Desn Process Meths | 3 |
| INDD 705 | Collaborative Innovatn Studio | 5 |
| INDD 707 | Current Issues in Ind Dsg | 3 |
| Credits | | 34 |
| Second Year | | |
| INDD 803 | Master's Proj I:Implementation | 4 |
| INDD 704 | Wkshop: Interactive Prototypn | 3 |
| INDD 804 | Master's Proj II: Dev & Eval | 5 |
| INDD 701 | Design Bus & Entrepreneurship | 3 |
| General Elective | | 9 |
| Credits | | 24 |
| Total Credits | | 58 |

Program with all AS granted: 34 credits Average credits for accepted students: 48 credits

International Fashion Design Management (MS)

Contacts

Program Director: Farai Simoyi

Email: Farai.Simoyi@jefferson.edu

215-951-0842

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/kanbar-college-of-design-engineering-commerce/school-of-design-engineering/academic-programs/ms-international-fashion-design-management.html>)

Program Description

The MS in Fashion Design Technology program is developed to create the next generation of fashion professionals for a complex global fashion system. Students are invited to create their own path, and customize the experience to focus on different tracks with global opportunities right at their fingertips. By moving beyond the hand-crafted approach to fashion, students will have the opportunity to focus on design as a strategic function, integrated along the cycle of research and design, product development, branding and distribution.

Learning Goals/Outcomes

- Identify and synthesize research methodologies for the formulation of conceptual and tangible outcomes
- Implement strategic planning across the design development process
- Demonstrate how design interfaces with the wider fashion enterprise
- Manage the design portfolio
- Identify ethical theories and implement them in the international apparel markets

- Summarize and implement timelines used in the design process
- Integrate quantitative data & design development.

Curriculum: 1.5-2 Years, 31-37 Credits

| Code | Title | Credits |
|--|--------------------------------|--------------|
| Year 1-Core Curriculum | | |
| FDM 601 | Design Process Timeline: P&M | 3 |
| FDM 617 | Designing within Brand Paramet | 3 |
| FDM 610 | Social Media Metrics in Desig | 3 |
| FDM 623 | Textile Design & Approval Proc | 3 |
| FDM 621 | Building Brand Identity | 3 |
| FDM 707 | Strategic Dsgn & Merchandising | 4 |
| Year 2-Core Curriculum | | |
| SDE 783 | SDE Independent Study | 3 |
| CAD 4XX | CLO 3D Design Innovation | 3 |
| Tracks | | |
| Select one of the following tracks: | | 6-15 |
| Sustainable Design Leadership Certification Study (p. 223) | | |
| Sustainable Design Leadership Concentration Study (p. 223) | | |
| Entrepreneurship Study (p. 223) | | |
| Textile Study (p. 223) | | |
| Innovation/Technology Study (p. 223) | | |
| Total Credits | | 31-40 |

FDM Core Curriculum + Sustainable Design Leadership Certification Study Track

| Code | Title | Credits |
|---|--------------------------------|---------|
| SDN 625 | Env Imp Analysis and Sys Think | 3 |
| SDN 626 | Models & Metrics for Sust Orgs | 3 |
| Take two courses below after graduation + receive certificate from Sustainable Design Program | | |
| SDN 601 | Princ & Methods of Sust Design | 3 |
| SDN 602 | Adaptive & Resilient Dsgn Sdio | 3 |

FDM Core Curriculum + Sustainable Design Leadership Concentration Study Track

| Code | Title | Credits |
|---------|--------------------------------|---------|
| SDN 625 | Env Imp Analysis and Sys Think | 3 |
| SDN 626 | Models & Metrics for Sust Orgs | 3 |
| SDN 627 | Sust Adv & Chg Mgmt | 3 |

FDM Core Curriculum + Entrepreneurship Study Track

| Code | Title | Credits |
|---------|--------------------------------|---------|
| GFE 611 | Product Devel/Entrepreneurship | 3 |
| GFE 621 | Fashion Global Mktg & Sourcing | 3 |

FDM Core Curriculum + Textile Study Track

| Code | Title | Credits |
|---------|-------------------|---------|
| TXF 511 | Knit Technology I | 3 |
| TXD 665 | Design Management | 3 |

FDM Core Curriculum + Innovation/Technology Study Track

| Code | Title | Credits |
|----------|--------------------------|---------|
| IND 371 | Course IND 371 Not Found | 3 |
| GFE 612 | Technology in Fashion | 3 |
| DSGN 371 | Special Topics: | 3 |

Mechanical Engineering (BS)

Contacts

Program Director: Brian George, PhD

Email: Brian.George@jefferson.edu
215-951-2782

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/kanbar-college-of-design-engineering-commerce/school-of-design-engineering/academic-programs/mechanical-engineering.html>)

Program Description

- **STEM designated program**

The BSE Mechanical Engineering program, accredited by the Engineering Accreditation Commission of ABET, bestow graduates with a breadth of engineering skill and knowledge while facilitating technical depth in mechanical engineering design and manufacturing, energy and thermal-fluid Sciences, mechanics, and mechatronics. Students graduate qualified to lead successful and productive careers in their discipline, work collaboratively with colleagues of other disciplines, and pursue Professional Engineering (PE) licensure, and graduate studies.

Learning Goals/Outcomes

- An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
- An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
- An ability to communicate effectively with a range of audiences
- An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
- An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
- An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
- An ability to acquire and apply new knowledge as needed, using appropriate learning strategies

Curriculum: 4 Years, 127.5-129.5 Credits

| Course | Title | Credits |
|----------------------|---------------------------------|--------------|
| First Year | | |
| FYS 100 | Pathways Seminar | 1 |
| WRIT 101 | Writing Sem I: Written Comm. | 3 |
| AMST 114 | Course AMST 114 Not Found | 3 |
| MATH 111 | Calculus I | 4 |
| CHEM 103 & 103L | Chemistry I and Chemistry I Lab | 4 |
| PHYC 201 | Physics I | 3 |
| PHYC 201L | Physics I Lab | 1 |
| MATH 112 | Calculus II | 4 |
| DECF 102 | Finding & Shaping Opportunity | 3 |
| ENGR 101 | Introduction to Engineering | 3 |
| ENGR 104 | Introduction to Computing | 3 |
| ENGR 102 | Engineering Drawing | 3 |
| Credits | | 35 |
| Second Year | | |
| ADIV 2XX | American Diversity | 3 |
| WRIT 201 | Writing Seminar II: Multi Comm | 3 |
| DECS 2XX | Science (DECSYS) | 3 |
| ENGR 301 | Mechanics of Materials | 3 |
| ENGR 305 | Engineering Statistics | 3 |
| MATH 213 | Calculus III | 4 |
| PHYC 203 | Phys II: Waves, Elec, & Mag | 3 |
| PHYC 203L | Physics II Lab | 1 |
| ENGR 215 | Engineering Statics | 3 |
| MATH 225 | Differential Equations | 3 |
| ENGR 218 | Engineering Dynamics | 3 |
| Credits | | 32 |
| Third Year | | |
| ENGR 371 | Special Topics | 3 |
| ENGR 302 | Design for Manufacturability | 3 |
| ENGR 305 | Engineering Statistics | 3 |
| ENGR 322 | Fund. of Elect. Engineering I | 3 |
| ENGR 308 | Integrated Engr Product Dev. I | 3 |
| ENGR 311 | Fluid Mechanics | 3 |
| ENGR 314 | Numerical Meths for Engineers | 3 |
| MENG 407 | Thermodynamics | 3 |
| ENGR 210 | Intro to Materials Science | 3 |
| MENG 399 | Mechanical Engin Design Sem | 0.5 |
| MENG 301 | Machine Design | 3 |
| Credits | | 30.5 |
| Fourth Year | | |
| PHIL 499 | Philosophies of the Good Life | 3 |
| ETHC 2XX | Ethics | 3 |
| ENGR 303 | Engineering Economics | 3 |
| MENG 405 | Intro to Mechatronics | 3 |
| MENG 427 | System Dynamics and Controls | 3 |
| DECM 300 | Research Methods | 3 |
| MENG 428 | Heat Transfer | 3 |
| ENGR 498 | Senior Design Project I | 3 |
| ENGR 499 | Senior Design Project II | 3 |
| CGIS 300 | Contemporary Global Issues | 3 |
| Credits | | 30 |
| Total Credits | | 127.5 |

Surface Imaging (Advanced-Practice Certificate)

Contacts

Program Director: Hitoshi Ujii

Email: Hitoshi.Ujii@jefferson.edu
215-951-2682

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/kanbar-college-of-design-engineering-commerce/school-of-design-engineering/academic-programs/surface-imaging-advanced-practice-certificate.html>)

Program Description

The Surface Imaging Advanced Practice Certificate offers a unique design education by viewing anything and everything as the canvas through the utilization of a variety of printing technologies. By applying painting, drawing, photography and printmaking to advanced design studios and printing practices, you will produce complex and unique surface image projects. You will be able to bring your creativity to life through fabrication printing, including additive material deposition and subtraction printing technologies (enhanced 3D surface and laser printing)—allowing you to produce anything you can imagine. Product development and management skills are enhanced with thorough knowledge and experience in advanced printing technology, applied engineering and an understanding of innovative business systems. The program is designed for imaging practitioners, professional designers as well as students in the universities and colleges who wish to enhance their careers in Surface Imaging.

Learning Goals/Outcomes

- Gain professional experience through research based real-world projects with industry partners that stress critical thinking and problem-solving skills through teamwork and collaboration.
- Work on interdisciplinary projects using advanced technology and design solutions.
- Be prepared to be a leader in the growing imaging industry which includes graphic, architectural, interior, textile, fashion apparel and home industries, as well as all facets in the global imaging industry.

Curriculum

| Code | Title | Credits |
|----------------------|--------------------------------|-------------|
| MSSI 506 | Surface Imaging Design | 1.5 |
| MSSI 501 | Digital Textile Printing | 1.5 |
| MSSI 502 | Hard Surface Digital Printing | 1.5 |
| MSSI 503 | Dig Print for Flex Substrates | 1.5 |
| MSSI 504 | Digital Color Management | 1.5 |
| MSSI 505 | Printing Technology | 1.5 |
| MSSI 510 | Specialist Printing | 1.5 |
| MSSI 550 | Surface Imaging Pattern Design | 3 |
| Total Credits | | 13.5 |

Textile Design (BS)

Contacts

Program Director: Marcia Weiss

Email: Marcia.Weiss@Jefferson.edu

215-951-2762

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/kanbar-college-of-design-engineering-commerce/school-of-design-engineering/academic-programs/textile-design.html>)

Program Description

- STEM designated program

With growing interest in materiality and expanding international markets, the billion-dollar textile industry impacts lives in a multitude of ways, from interiors and fashion, to performance and high-tech. This provides a world of opportunity for talented textile designers. Our program puts students on the fast track to an exciting career in this field. Textile Design majors' range from those who are design- and trend oriented to those focused on product development, textile science and engineering enabling specialization in the area most suited to individual interests and strengths. Each year, Textile Design students win awards in prestigious, international design competitions sponsored by textile associations and industry corporations.

Learning Goals/Outcomes

- Apply conceptual and critical thinking skills that illustrate an understanding of the myriad opportunities within textile design
- Demonstrate creative talents that advance the textile design profession
- Examine textile design issues through acquiring, developing and conveying design ideas and information
- Demonstrate an understanding of design business practices, including ethics and law
- Develop a network of design industry thought leaders through successful completion of the program
- Integrate international perspectives to function in a global marketplace.

Curriculum: 4 Years, 124-126 Credits

| Course | Title | Credits |
|--------------------|--------------------------------|--------------|
| First Year | | |
| FYS 100 | Pathways Seminar | 1 |
| WRIT 101 | Writing Sem I: Written Comm. | 3 |
| AMST 114 | Course AMST 114 Not Found | 3 |
| MATH 1XX | Mathematics | 3-4 |
| TEXT 105 | Text Des. Studio I: Ideation | 3 |
| VDES 101 | Design Essentials | 3 |
| DECF 102 | Finding & Shaping Opportunity | 3 |
| DRAW 101 | Drawing Essentials | 3 |
| TEXT 101 | Survey of Textile Industry | 3 |
| DRAW 303 | Drawing: Materials/Techniques | 3 |
| KNIT 201 | Knit Technology I | 3 |
| Credits | | 31-32 |
| Second Year | | |
| ETHC 2XX | Ethics | 3 |
| GDIV 2XX | Global Diversity | 3 |
| WRIT 201 | Writing Seminar II: Multi Comm | 3 |
| DECS 2XX | Systems | 3 |
| PRNT 305 | Textile Printing Technology | 3 |
| WEAV 201 | Weave Technology I | 3 |

| Course | Title | Credits |
|-----------------------------|---|----------------|
| TEXT 205 | Text. Des. Studio II: Fashion | 3 |
| ARTH 101 or ARTH 102 | History of Art I or History of Western Art II | 3 |
| TEXT 206 | Text Des Studio III: Interiors | 3 |
| ARTH 314 | History of Textiles & Costumes | 3 |
| Credits | | 30 |
| Third Year | | |
| ADIV 2XX | American Diversity | 3 |
| GCIT 2XX | Global Citizenship | 3 |
| CGIS 300 | Contemporary Global Issues | 3 |
| CHEM 101 | General Chemistry | 3 |
| DECM 300 | Research Methods | 3 |
| ARTH 3XX | History of Art of Color | 3 |
| Textile DSN Designated Ele | | 3 |
| TEXT 3XX | Textile Design Management | 3 |
| TEXC 202 & 202L | Course TERC 202 Not Found and Course TERC 202L Not Found | 4 |
| TEXT 306 | Text Des Studio IV: Performanc | 3 |
| Credits | | 31 |
| Fourth Year | | |
| PHIL 499 | Philosophies of the Good Life | 3 |
| TEXT 307 | Textile Materials | 4 |
| TEXT 490 | Textile Design Capstone 1 | 3 |
| TEXT 411 | Textile Industry Issues | 1 |
| Textile Designated Elective | | 6 |
| General Electives or Minor | | 12 |
| TEXT 491 | Textile Design Capstone 2 | 3 |
| Credits | | 32 |
| Total Credits | | 124-125 |

Textile Design (MS)

Contacts

Program Director: Marcia Weiss

Email: Marcia.Weiss@Jefferson.edu

215-951-2762

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/kanbar-college-of-design-engineering-commerce/school-of-design-engineering/academic-programs/ms-textile-design.html>)

Program Description

- STEM designated Program

Provides both integration and balance between creative design and technology to prepare students for successful careers within the textile design industry. The program opens up the opportunity for successful and creative professional development for students who hold previous studio arts degrees as well as those coming from alternative backgrounds. The program structure has a unique balance of a strong technical base across all aspects of textiles upon which students build their design skills in a single concentration of knit, weave or print. Collaborative experiences with other majors plus a range of additional projects assigned by industry professionals and companies serve to expand the students' experiences.

Learning Goals/Outcomes

- Develop an appreciation of the multifaceted nature of textile design and the technical knowledge, skills, design and development processes and business structures required for a professional career in textiles
- Practice sustained visual research through original observation and trend information
- Apply visual research and technical skills into a collection of knitted, woven or printed textiles
- Produce a final body of textile design work—a fabric collection for exhibition and portfolio— exhibiting individual concept and development
- Produce an account of their final semester collection in thesis format for inclusion in the Gutman Library collection.

Curriculum: 2 Years, 39 Credits

| Course | Title | Credits |
|------------------------------|--------------------------------|-----------|
| First Year | | |
| TXD 615 | Studio 1A: Conceptual Develmpt | 3 |
| TXD 616 | Studio 1B: Structures | 3 |
| TXD 617 | Studio 1C:Text Mats &Processes | 3 |
| Select one of the following: | | 3 |
| TXD 749 | Weave Technology II | |
| TXD 750 | Knitting Technology | |
| TXD 776 | Textile Printing Technology | |
| Business Elective | | 3 |
| TXD 777 | Advanced Computer-Aided Design | 3 |
| TXD 625 | Seminar | 0 |
| TXD 742 | Studio 2A: Sust Apps & Opps | 3 |
| Credits | | 21 |
| Second Year | | |
| TXD 743 | Studio 2B: Adv Fiber Explortn | 3 |
| TXD 744 | Studio 2C: Text Prod & Purpose | 3 |
| Graduate Elective | | 3 |
| TXD 772 | Studio 3A: Thesis Development | 3 |
| TXD 773 | Design Studio III-B | 3 |
| TXD 774 | Studio 3B: Thesis Collection | 2 |
| TXD 975 | Thesis | 1 |
| Credits | | 18 |
| Total Credits | | 39 |

Textile Design- Accelerated (BS/MS)

Contacts

Program Director: Marcia Weiss

Email: Marcia.Weiss@Jefferson.edu

215-951-2762

Program Description

The School of Design and Engineering offers a five-year Bachelor of Science/Master of Science (BS/MS) program to qualifying students majoring in textile design. Students follow the BS in Textile Design program for the first three years. Graduate courses taken in the fourth year of undergraduate study are applied toward both the BS and MS degrees. The fifth year includes summer sessions, in addition to the fall and spring semesters.

The five-year program offers an opportunity for students wishing to further their design education through graduate-level studio work. The program focuses on design development on a more concentrated basis, and thus extends and expands students' design skills and portfolio work (within their selected specialization) to a level not attainable through the undergraduate program.

Procedures

Prior to the end of their junior year, Textile Design BS students must complete the following:

- Meet with their academic advisor from the Textile Design program to discuss their interest
- Contact Graduate Admissions to share their intention to enter the 4 + 1 degree program and to discuss the procedure for doing so
- Currently-enrolled undergraduate Textile Design students will be considered for admission if they have maintained at minimum a 3.0 GPA
- Textile Design BS students must complete a minimum of 120 unique undergraduate credits to receive their undergraduate degree.

Program Learning Outcomes

Please see the Textile Design BS and Textile Design MS catalog entries for Program Learning Outcomes for both programs.

Curriculum: 5 Years, 120 (BS) & 30 (MS)

| Course | Title | Credits |
|----------------------|--------------------------------|-----------|
| Fourth Year | | |
| Year 4 + | | |
| TXD 617 | Studio 1C:Text Mats &Processes | 3 |
| Credits | | 3 |
| Summer | | |
| TXD 615 | Studio 1A: Conceptual Develmpt | 3 |
| Credits | | 3 |
| Fifth Year | | |
| Fall | | |
| TXD 742 | Studio 2A: Sust Apps & Opps | 3 |
| TXD 743 | Studio 2B: Adv Fiber Explortn | 3 |
| TXD 744 | Studio 2C: Text Prod & Purpose | 3 |
| Credits | | 9 |
| Spring | | |
| TXD 772 | Studio 3A: Thesis Development | 3 |
| TXD 773 | Design Studio III-B | 3 |
| TXD 777 | Advanced Computer-Aided Design | 3 |
| Credits | | 9 |
| Summer | | |
| Graduate Elective | | 3 |
| TXD 774 | Studio 3B: Thesis Collection | 2 |
| TXD 975 | Thesis | 1 |
| Credits | | 6 |
| Total Credits | | 30 |

Textile Engineering & Sciences (PhD)

Contacts

Program Director: Ryan Masoodi, PhD

Email: Ryan.Masoodi@jefferson.edu
215-951-5630

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/kanbar-college-of-design-engineering-commerce/school-of-design-engineering/academic-programs/phd-textile-engineering-sciences.html>)

Program Description

- **STEM designated program**

The PhD program in Textile Engineering & Science emphasizes not only depth in fundamental textile engineering and sciences/mechanical engineering disciplines, but also an interdisciplinary approach to understanding technologies in which textile engineers and scientists can and should take a leading role. It is this combined emphasis on fundamentals, the ability to think and work outside one's area of expertise and the ability to frame complex problems that best defines this doctoral program. Students will propose a textile engineering and sciences problem of substance and then develop a solution. Students must demonstrate the ability to apply scientific principles to meet engineering needs with due regard to factors such as environmental, financial, and/or societal, and they must do so within a reasonable time constraint.

Learning Goals/Outcomes

- Demonstrate knowledge of and proficiency in applying research methodology to textile engineering
- Demonstrate knowledge and proficiency in technical aspects of textile engineering
- Analyze and critique established textile and engineering theories and synthesize new theories based on research
- Apply their acquired skills toward the development of a unique research project
- Perform written and oral technical communications at a competent level.

Curriculum: 2 Years, 36 Credits

- Beyond Master's Degree in approved field

| Course | Title | Credits |
|--|------------------------------|-----------|
| First Year | | |
| Select three Graduate Engineering or Textile courses | | 9 |
| TES 901 | Preliminary Examination Prep | 3 |
| TES 902 | Thesis I | 6 |
| Credits | | 18 |
| Second Year | | |
| TES 903 | Dissertation Research I | 9 |
| TES 904 | Dissertation Research II | 3 |
| TES 906 | Thesis II | 6 |
| Credits | | 18 |
| Total Credits | | 36 |

- In a collaborative agreement with nearby Temple University, the three graduate-level courses may be taken at the College of Engineering at Temple, or at another university after consultation between the student, the dissertation chair, and the director of the program, or they can be taken at Thomas Jefferson University.
- The student's doctoral committee may require additional courses to enhance the student's research.

- Students will then be required to pass a two-part qualifying examination in the field of textile engineering. The first part is a written examination, and the second part is an oral examination

Textile Product Science (BS)

Contacts

Program Director: Marcia Weiss

Email: Marcia.Weiss@Jefferson.edu
215-951-2762

Program Director: Brian George

Email: Brian.George@jefferson.edu

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/kanbar-college-of-design-engineering-commerce/school-of-design-engineering/academic-programs/textile-product-science.html>)

Program Description

- **STEM designated program**

The program focuses on the innovative global textile industry, including fiber-engineered products for medical, geotextiles, architecture, fiber-reinforced composites, and traditional apparel and home applications. In this program students have the opportunity to select one of 4 career-focused concentrations and complete graduate level courses to transition into select Jefferson graduate programs.

Learning Goals/Outcomes

Prepares students to work in a global industry that includes fiber-engineered products for medical, geotextiles, architecture, fiber-reinforced composites, traditional apparel, and home-furnishing applications.

Concentrations

- Sports & High-Performance Materials
- Commerce
- Fashion Management
- Textile Fashion Sustainability

Curriculum: 4 Years, 123-126 Credits

| Course | Title | Credits |
|-------------------|--------------------------------|---------|
| First Year | | |
| FYS 100 | Pathways Seminar | 1 |
| WRIT 101 | Writing Sem I: Written Comm. | 3 |
| CHEM 101 | General Chemistry | 3-4 |
| or CHEM 103/103L | or Chemistry I | |
| AVIS 101 | American Visions | 3 |
| MATH 1XX | Mathematics | 3-4 |
| ENGR 104 | Introduction to Computing | 3 |
| DECF 102 | Finding & Shaping Opportunity | 3 |
| TEXT 104 | FoundationFiber & Yarn Studies | 3 |
| KNIT 201 | Knit Technology I | 3 |
| or WEAV 201 | or Weave Technology I | |
| CAD 201 | Intro to Digital Imaging | 3 |
| or ENGR 102 | or Engineering Drawing | |
| PHYC 201 | Physics I | 3 |

| Course | Title | Credits |
|--------------------------------|---|----------------|
| PHYC 201L | Physics I Lab | 1 |
| Credits | | 32-34 |
| Second Year | | |
| ETHC 2XX | Ethics | 3 |
| GDIV 2XX | Global Diversity | 3 |
| WRIT 201 | Writing Seminar II:Multi Comm | 3 |
| DECS 2XX | Science (Select one DECSYS) | 3 |
| WEAV 201 or KNIT 201 | Weave Technology I or Knit Technology I | 3 |
| KNIT 205 or WEAV 301 | Knit Technology II or Weave Technology II | 4 |
| TEXT 307 | Textile Materials | 4 |
| Concentration Course | | 3 |
| Concentration Coursework (p.) | | 3 |
| Credits | | 29 |
| Third Year | | |
| ADIV 2XX | American Diversity | 3 |
| GCIT 2XX | Global Citizenship | 3 |
| CGIS 300 | Contemporary Global Issues | 3 |
| DECM 300 | Research Methods | 3 |
| KNIT 205 or WEAV 301 | Knit Technology II or Weave Technology II | 4 |
| TEXC 202 & 202L | Course Texc 202 Not Found and Course Texc 202L Not Found | 4 |
| Concentration Courses | | 6 |
| TEXT 321 | Nonwovens | 3 |
| Designated Elective | | 3 |
| TEXT 411 | Textile Industry Issues | 1 |
| Credits | | 33 |
| Fourth Year | | |
| PHIL 499 | Philosophies of the Good Life | 3 |
| Concentration Courses | | 9 |
| General Electives | | 12 |
| TEXT 487N | Capstone in Textile Mat. Tech | 6 |
| Credits | | 30 |
| Total Credits | | 124-126 |

Textile Technology (MS)

Contacts

Program Director: Ryan Masoodi, PhD

Email: Ryan.Masoodi@jefferson.edu

215-951-5630

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/kanbar-college-of-design-engineering-commerce/school-of-design-engineering/academic-programs/ms-textile-technology.html>)

Program Description

- STEM designated program

The MS in Textile Technology at Jefferson offers an integrated and collaborative curriculum that blends theoretical knowledge with experiential laboratory experiences. In many courses' students turn innovative ideas into original products. It is expected that graduates of the program will pursue careers in production, product evaluation, research and development, or management in the textile and apparel related fields.

Learning Goals/Outcomes

- Teaches cutting-edge technical textile processes to students interested in learning more about the science and technical based aspects of textiles.
- Courses focus on development, production, and characterization of fibers, yarns, fabrics, and textile-based products.
- The program combines theoretical knowledge gained in the classroom with hands-on experience with weaving, knitting, nonwovens, and composites production equipment in the innovative Fashion and Textiles Futures Center, as well as materials evaluation equipment in the Brunner Lab on the East Falls campus.

Curriculum: 2 Years, 30 Credits

- Students select 8 courses from TEXT options below
- Thesis (Required, 6 credits)

| Code | Title | Credits |
|--------------------------------|--------------------------------|---------|
| Core Curriculum | | |
| Select eight of the following: | | 24 |
| TEXT 601 | Fiber and Yarn Studies | |
| TEXT 602 | Textile Sustainability | |
| TEXT 603 | Adv Integ Engg Product Develop | |
| TEXT 613 | Characterization Fibrous Mtrls | |
| TEXT 621 | Mechanics of Materials | |
| TEXT 622 | Mechanics of Textiles | |
| TEXT 624 | Advanced Textile Composites | |
| TEXT 625 | Biomaterials Technology | |
| TEXT 713 | Coloration & Finishing Studies | |
| TEXT 721 | Analytical Methods | |
| TEXT 751 | Adv Woven Structures Prod Dev | |
| TEXT 752 | Advanced Knitted Structures | |
| TEXT 753 | Adv Nonwoven Structur Prod Dev | |
| TEXT 754 | Indstrl,Specialty Fab Prod Dev | |
| TEXT 755 | Advanced Yarn Studies | |
| TEXT 759 | Product Evaluation | |
| TEXT 762 | Tex, Appr Operatns Mgt | |
| TEXT 783 | Chem of Fibrous Matrls | |
| TEXT 790 | Quality Management | |
| TEXT 791 | Course TEXT 791 Not Found | |
| TEXT 797 | Selected Topics | |
| TEXT 798 | Independent Study | |
| ENGR 623 | Intro to Life Cycle Analysis | 3 |
| ENGR 624 | Lean Manufacturing | 3 |
| REQUIRED | | |
| Thesis | | 6 |

User Experience & Interaction Design (MS)

Contacts

Program Director: Neil Harner

Email: Neil.Harner@Jefferson.edu

215-951-2913

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/kanbar-college-of-design-engineering-commerce/school-of-design-engineering/academic-programs/ms-user-experience-interaction-design.html>)

Program Description

User Experience and Interaction Design prepares students to be professionals who will change standards by which society communicates and interacts. When one looks at websites, mobile communications devices, graphic user interfaces, or integrated systems, one sees the importance of interaction in communicating a rich media experience. For businesses, success depends on a well-designed, engaging, dynamic and robust user experience. The MS in User Experience and Interaction Design program provides students the necessary skillsets and promotes the critical thinking that is vital to this evolving field.

Learning Goals/Outcomes

- Use principles of design, such as visual organization, information hierarchy, typography, narrative and aesthetics to solve problems
- Plan and design usable sites by collecting data through various methods
- Analyze and evaluate data, plan and execute intuitive interfaces, user experiences and rich interactive designs
- Use equipment, technology and resources that represent current trends in the field
- Analyze and design functional prototypes
- Apply user experience design principle
- Evaluate and respond to user needs and develop solutions to usability problems
- Apply fundamental concepts of Internet and digital marketing including social media and email marketing
- Create and analyze system architecture such as Content Management Systems, web development, user interactions and database development
- Use computer languages, compilers, interpreters and assembler products to produce code and output to meet specifications
- Illustrate an understanding of digital technologies in the creation, production and use of visual communication
- Utilize and synthesize digital tools including software, photography, time-based and interactive media to create effective visual designs

Curriculum: 1.5 - 2 Years, 31-37 Credits

Standard Plan (Fall Start)

| Course | Title | Credits |
|--------------------|-------------------------------|-----------|
| First Year | | |
| IDD 510 | Essentials of Interactive Des | 6 |
| INDD 700 | Research & Desn Process Meths | 3 |
| IDD 621N | Digital Experience Design | 3 |
| IDD 637 | Mobile Communication Design | 3 |
| INDD 701 | Design Bus & Entrepreneurship | 3 |
| IDD 631N | Digital Innovation Design | 3 |
| Credits | | 21 |
| Second Year | | |
| IDD 941N | UXD Thesis Project Preparatn | 1 |
| IDD 635 | Interactive Narrative/Drama | 3 |

| Course | Title | Credits |
|----------------------|---------------------------|-----------|
| IDD 632 | Database Mgmt & Scripting | 3 |
| IDD 798 | Independent Study | 3 |
| Credits | | 10 |
| Total Credits | | 31 |

Accelerated Plan (Professionals & Undergraduate Pathway)

| Course | Title | Credits |
|----------------------|-------------------------------|-----------|
| First Year | | |
| INDD 700 | Research & Desn Process Meths | 3 |
| IDD 621N | Digital Experience Design | 3 |
| IDD 632 | Database Mgmt & Scripting | 3 |
| IDD 637 | Mobile Communication Design | 3 |
| INDD 701 | Design Bus & Entrepreneurship | 3 |
| IDD 635 | Interactive Narrative/Drama | 3 |
| IDD 941 | Digital Design Syn Proj Prep | 1 |
| IDD 631N | Digital Innovation Design | 3 |
| IDD 798 | Independent Study | 3 |
| Credits | | 25 |
| Second Year | | |
| IDD 942 | UXD Thesis Project | 6 |
| Credits | | 6 |
| Total Credits | | 31 |

Visual Communication Design (BS)

Contacts

Program Director: Elizabeth Shirrell

Email: Elizabeth.Shirrell@jefferson.edu
215-951-2116

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/kanbar-college-of-design-engineering-commerce/school-of-design-engineering/academic-programs/visual-communication-design.html>)

Program Description

Design shapes our world and human experiences. The Visual Communication Design program emphasizes the role of design as a vital cultural, social, economic, political, and environmental force in society. By fostering curiosity, faculty empower students to develop individual points of view and equip them to investigate and tackle the complex challenges of our profession and the world. Graduates learn to make and think using a range of techniques and applications, to collaborate with peers and faculty from other programs, to work on industry projects, and to engage with the professional design community. Students select a concentration in year three; Graphic Design Communication (GRAPH) or Web Design and Development (WEB).

Learning Goals/Outcomes

- Identify communication design problems to support appropriate solutions for intended audiences and context
- Conduct research & analysis to shape solutions and user experience
- Generate/prototype solutions to discover possibilities
- Evaluate outcomes to measure effectiveness

- Collaborate productively in teams (interdisciplinary)
- Adapt to continually changing professional challenges
- Demonstrate visual literacy through means such as composition, hierarchy, typography & creation of meaningful images
- Display proficiency in tools & technology

Curriculum: 4 Years, 121-125 Credits

| Course | Title | Credits |
|---|---------------------------------|--------------|
| First Year | | |
| FYS 100 | Pathways Seminar | 1 |
| WRIT 101 | Writing Sem I: Written Comm. | 3 |
| AVIS 101 | American Visions | 3 |
| MATH 1XX | Math I | 3-4 |
| SCI 1XX | Science Placeholder | 3 |
| DECF 102 | Finding & Shaping Opportunity | 3 |
| VDES 101 | Design Essentials | 3 |
| DRAW 101 | Drawing Essentials | 3 |
| GRPH 102 | Intro to Graphic Design | 3 |
| ARTH 103 | A Survey of the History of Art | 3 |
| GRPH 110 | Digital Imagn for Graphic Desg | 3 |
| Credits | | 31-32 |
| Second Year | | |
| ETHC 2XX | Ethics Course Placeholder | 3 |
| GDIV 1XX | Global Diversity Placeholder | 3 |
| WRIT 201 | Writing Seminar II: Multi Comm | 3 |
| GRPH 208 | History of Graphic Design | 3 |
| DECS 209 | Sys Thinking & Sustainability | 3 |
| GRPH 201 | Design III for Graph Dsgn Comm | 3 |
| GRPH 202 | Design IV for Graph Dsgn Comm | 3 |
| ARTH 2XX | Art History Elective | 3 |
| DIGD 200 | Fundamentals of Web Programming | 3 |
| DIGD 206 | Found in Web Design & Strategy | 3 |
| Credits | | 30 |
| Third Year | | |
| ADIV 2XX | American Diversity Placeholder | 3 |
| GCIT 2XX | Global Citizenship Placeholder | 3 |
| CGIS 300 | Contemporary Global Issues | 3 |
| DECM 300 | Research Methods | 3 |
| DECM 300 | Research Methods | 3 |
| DIGD 318 | Media Production | 3 |
| MKTG 102 | Principles of Marketing | 3 |
| Visual Comm Design Elective | | 3 |
| General Elective | | 3 |
| Concentration | | |
| Select one of the following concentrations: | | 6 |
| Graphic Design | | |
| GRPH 301 | Design V for Graph Design Comm | |
| GRPH 302 | Design VI for Graph Design Comm | |
| Web Design | | |
| DIGD 307 | Advanced Web Design & Strategy | |
| DIGD 403 | Web Development | |
| Credits | | 33 |
| Fourth Year | | |
| PHIL 499 | Philosophies of the Good Life | 3 |
| GRPH 308 | Graphic Design Theory | 3 |
| DIGD 498 | Interdisc Capstone Proj Prep | 3 |
| GRPH 499 | Cap in Graph Design Comm | 6 |
| Visual Comm Design Elective | | 3 |
| General Electives | | 6 |

| Course | Title | Credits |
|------------------------------|--------------------------------|----------------|
| Concentration | | |
| Select one of the following: | | 3-6 |
| Graphic Design | | |
| GRPH 401 | Design VII for Graph Dsgn Comm | |
| Web Design | | |
| DIGD 314 | User Interface Design | |
| DIGD 320 | Javascript Programming | |
| Credits | | 27-30 |
| Total Credits | | 121-125 |

Sidney Kimmel Medical College (SKMC)

Interim Dean: Steven Herrine | College Website (<http://Jefferson.edu/SKMC/>)

About Us

Founded in 1824, Jefferson Medical College, now the Sidney Kimmel Medical College (SKMC), has awarded more than 31,000 medical degrees and has more living graduates than any other private medical school in the nation. It offers both undergraduate medical education programs and innovative joint degree programs to more than 1,000 students each year.

The Sidney Kimmel Medical College is recognized for its balanced approach to medical education, and approximately one out of four to one out of five applicants throughout the U.S. apply to Sidney Kimmel.

Mission

We improve lives by preparing physicians through inclusive education, incisive inquiry, and compassionate care.

Values

Put People First; Be Bold and Think Differently; Do the Right Thing.

Medical Departments of SKMC

- Anesthesiology
- Biochemistry & Molecular Biology
- Cancer Biology
- Dermatology & Cutaneous Biology
- Emergency Medicine
- Family & Community Medicine
- Integrative Medicine & Nutritional Sciences
- Medical Oncology
- Medicine
- Microbiology & Immunology
- Molecular Physiology & Biophysics
- Neurological Surgery
- Neurology
- Neuroscience
- Obstetrics & Gynecology
- Oral & Maxillofacial Surgery
- Ophthalmology
- Orthopedic Surgery
- Otolaryngology / Head & Neck Surgery

- Pathology, Anatomy & Cell Biology
- Pediatrics
- Pharmacology & Experimental Therapeutics
- Psychology & Human Behavior
- Radiation Oncology
- Radiology
- Rehabilitation Medicine
- Surgery
- Urology

Programmatic Research Domains

- Oncological Sciences, The Sidney Kimmel Medical Center
- Neuroscience, The Vickie and Jack Farber Institute for Neuroscience
- Fibrosis & Pulmonary Biology, Center for Translational Medicine
- Mitochondria, Metabolism & Bioenergetics, MitrCare Center
- Orthopedics, Departments of Orthopedic Surgery
- Hematology & Vascular Biology, The Cardeza Center

Academic Programs

- **MD:** Our innovative curriculum prepares future doctors to learn actively and think critically as they develop core professional competencies to prepare them to make positive, impactful changes on healthcare.
- **MD/PHD:** Our students provide patient care, lead research discovery, advocate for basic and translational research and assume leadership roles in biomedical research and the delivery of health care.
- **Post-baccalaureate/ Pre-Health:** Programs for students who have a Baccalaureate degree but need to complete additional course work to meet the prerequisites for entry into medical school.
- **Physician Shortage Area Program:** An admissions and educational program designed to increase the supply and retention of physicians in rural areas and small towns, especially in Pennsylvania and Delaware.
- **Penn State Accelerated BS/MD:** A seven-year, cooperative BS/MD program, run by SMMC and Pennsylvania State University.
- **IDEA Program:** The IDEA Program invites Princeton University sophomores pursuing non-traditional pre-med majors or concentrations, such as architecture, engineering and computer science, to apply for early admission to SKMC.
- **Delaware Institute of Medical Education & Research:** The Delaware Institute of Medical Education and Research created the DIMER Program to provide an opportunity for Delaware residents to obtain a high-quality medical education.
- **University of Delaware Medical Scholars:** An educational collaboration between the University of Delaware and Sidney Kimmel Medical College, which links college to medical school with an early admission process for qualified students.
- **Joint MD/MBA-MHA:** A joint five-year MD/MBA (and MHA) program is offered in collaboration with Widener University. An additional MD/MBA opportunity is available through the University of Delaware at its main campus. These joint MD/MBA-MHA programs are under the direction of the Jefferson College of Population Health. <https://www.jefferson.edu/university/skmc/programs/md-mba-mha.html>
- **Dual MD/MPH (<https://www.jefferson.edu/academics/colleges-schools-institutes/skmc/programs/md-mp.html>):** In conjunction

with the Jefferson College of Population Health, medical students have the opportunity to earn the master of public health (MPH) degree as part of their SKMC education.

University Accreditations (<https://www.jefferson.edu/about/consumer-information-disclosures.html>) Medicine (MD)

Program Description

Contribute to SKMC's proud tradition of excellence. You will have many opportunities to develop as a leader in your profession — in clinical settings, research labs and community service. JeffMD, SKMC's curriculum, will support you by giving you sound fundamentals, combined with elements you can customize to your interests. You will find strong integration of clinical experience and science instruction throughout your four years here. In keeping with modern medical practice, you will gain the analytical skills to evaluate changing data and treatment options, sharpened emotional intelligence, and comfort working in multi-specialty teams. The study of medicine has always been one of the most deeply satisfying, exciting — and challenging — ways you could develop your talents. JeffMD deepens all these truths at SKMC.

Graduation Competencies

- **Patient Care**
Physicians should provide patient-centered care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.
- **Knowledge for Practice**
Physicians should demonstrate knowledge of established and evolving biomedical, clinical, epidemiological, and social-behavioral sciences, as well as the application of this knowledge to patient care.
- **Practice Based Learning & Improvement**
Physicians should demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and lifelong learning.
- **Interpersonal & Communication Skills**
Physicians should demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals.
- **Professionalism**
Physicians should demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles.
- **System Based Practice**
Physicians should demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care.
- **Interprofessional Collaboration**
Physicians should demonstrate the ability to engage in an interprofessional team in a manner that optimizes safe, effective patient and population-centered care.
- **Personal & Professional Development**

Physicians should demonstrate the qualities required to sustain lifelong personal and professional growth.

See additional information about Graduation Competencies on the SKMC Student Resources webpage: <https://www.jefferson.edu/academics/colleges-schools-institutes/skmc/undergraduate-medical-education/student-resources.html>

Curriculum

At SKMC, our innovative curriculum prepares future doctors to learn actively and think critically as they develop core professional competencies to prepare them to make positive, impactful changes on healthcare.

Phase I

Phase I is focused on basic science and foundational clinical science. Phase I consists of four course sequences:

| Code | Title | Credits |
|--------------------------------|-----------------------------|--------------|
| Clinical Experience | | |
| JMD 151 | Clinical Experience | 2 |
| JMD 251 | Clinical Experience | 1-2 |
| Foundations of Medicine | | |
| JMD 101 | Foundations of Medicine I | 24 |
| JMD 102 | Foundations of Medicine II | 22 |
| JMD 201 | Foundations of Medicine III | 17 |
| JMD 202 | Foundations of Medicine IV | 17 |
| Humanities Selectives | | |
| JMD 152 | Humanities Selectives | 1,2 |
| JMD 252 | Humanities Selectives | 1 |
| Scholarly Inquiry | | |
| JMD 150 | Scholarly Inquiry | 3 |
| JMD 250 | Scholarly Inquiry | 3 |
| Total Credits | | 91-93 |

These four course sequences, taken concurrently, create a bedrock of knowledge, clinical and critical thinking skills with a patient-centered focus that the student apply during their clinical years in medical school and beyond. Our Humanities Selectives and Scholarly Inquiry courses enable students to explore and concentrate on areas of their own interest.

- Length: 21 Months
- Focus on foundational science
- Clinical experience, appropriate to student's level, starts shortly after matriculation
- Scholarly Inquiry activities begin with choice of concentration and first project
- Two months of vacation
- Prep for USMLE Step 1

Phase II

During Phase 2, students are exposed to core clinical specialties of medicine. They will learn to evaluate patients with a variety of conditions across age, gender, and psychosocial spectra.

Students will partake in team-based patient care and learn to interpret data, build differential diagnoses, and use literature to guide treatment.

Phase 2 starts with a one-week Transition to Clerkships course that will prepare students for the immersive experience the core clerkships offer. During Phase 2, students will rotate through four twelve-week blocks of paired clerkships:

1. Family Medicine with Psychiatry
2. Pediatrics with Obstetrics and Gynecology
3. General Surgery and subspecialties with Emergency Medicine
4. Internal Medicine with Neurology

- Length: 12 Months
- Core clinical activities complimented by related science
- Research and humanities threads continue
- Four weeks of vacation

Phase III

Phase 3 of the curriculum is 12 weeks longer than the fourth year of a traditional curriculum, which allows students more time to prepare their residency applications and to take electives appropriate to their specialty interest. (Phase 1 is correspondingly 12 weeks shorter than years 1-2 in a traditional curriculum). Phase 3 begins in the spring of third year, allowing ample time for career exploration and development of specialty-specific skills.

All students complete core rotations and must fulfill all SKMC competencies.

- Length: 12 Months
- Students encouraged to identify specialty interest
- Science and skills training deepen exploration of specialty interest
- Students continue to work on common and specialty competencies for residencies
- Time included to prep for USMLE Step 2 and take vacation
- Program of scholarly inquiry wraps up
- Apply for post-graduate training

Thomas Jefferson, Sidney Kimmel Medical College (MD)/ Università Cattolica Sacro Cuore (MD)/ Thomas Jefferson College of Health Professions (MS)

Thomas Jefferson University and the Università Cattolica Sacro Cuore offer the opportunity for highly qualified students enrolled in the 6-year International English track in Medicine at the UCSC campus in Rome to apply for admission to the College of Population Health and Sidney Kimmel Medical College. Students who meet UCSC and Jefferson requirements interrupt their education at UCSC at the end of year 3, and enroll at SKCM to complete all four years of the SKMC curriculum. Upon graduation from SKMC, students return to UCSC to complete requirements for the UCSC MD degree. Students complete requirements for the degree of Master of Science (MS) in Health Policy during Year 1 and Year 2 summer semester breaks at UCSC, non-required elective or summer break time at SKMC, and after completion of the requirements for the SKMC MD degree.

SEARCH COURSES

Welcome to Course Search

Use the search panel on the left to find and narrow down courses of interest.

COURSE DESCRIPTIONS

We encourage you to explore our list of course offerings

- Course offerings are subject to change, addition and deletion

Undergraduate Course Offerings (p. 234)

Graduate Course Offerings (p. 403)

SKMC Medical College Course Offerings (p. 550)

Undergraduate

Undergraduate

A

- American Diversity (ADIV) (p. 236)
- American Studies (AMST) (p. 239)
- Animation (ANIM) (p. 240)
- Anthropology (ANTH) (p. 241)
- Applied Business Analytics (ABA) (p. 241)
- Arch & Interiors History (AHST) (p. 242)
- Architectural Engineering (AREN) (p. 242)
- Architectural Studies (ARST) (p. 243)
- Architecture Design (ARDS) (p. 245)
- Architecture Foundations (ARFD) (p. 246)
- Area Studies (ASTU) (p. 247)
- Art & Science of Healthcare (ASH) (p. 247)
- Art (ART) (p. 247)
- Art History (ARTH) (p. 247)
- Arts & Culture (ARCU) (p. 248)
- Arts (Online) (ARTX) (p. 248)
- Athletic Admin Certificate (CAAC) (p. 248)

B

- Basic Textiles (CBST) (p. 248)
- Behavior Health (Online) (BHIX) (p. 248)
- Behavioral Health (BHLT) (p. 248)
- Behavioral Health Services (BHS) (p. 249)
- Behavioral Health Services ONL (BHIX) (p. 250)
- Biology (BIOL) (p. 250)
- Biology (Online) (BIOX) (p. 258)
- Biology (P4) (BIO) (p. 259)
- Biology/Chemistry (BCHM) (p. 259)
- Bioprocessing (BP) (p. 260)
- Biotechnology (BT) (p. 261)
- Building Construction Studies (BCS) (p. 262)
- Business (BUS) (p. 262)
- Business (Online) (BUSX) (p. 263)

- Business Law (BLAW) (p. 263)
- Business Law (Online) (BLWX) (p. 263)

C

- CAD (Computer Aided Design) (CAD) (p. 263)
- Chemistry (CHEM) (p. 264)
- Chemistry (Online) (CHMX) (p. 268)
- Chemistry (P4) (CHE) (p. 268)
- College Studies (CLST) (p. 268)
- Communication (Online) (COMX) (p. 268)
- Communications & Media Studies (COMS) (p. 269)
- Communications (COMM) (p. 271)
- Community & Trauma Counseling (CTC) (p. 272)
- Computation (COMP) (p. 272)
- Computer (Online) (CISX) (p. 272)
- Computer Studies (CMST) (p. 273)
- Construction Management (CMGT) (p. 273)
- Cont & Prof Studies (CPS) (p. 275)
- Cont & Prof Studies (Online) (CPSX) (p. 275)
- Cont. Studies Seminar (Online) (CSSX) (p. 276)
- Contemporary Global Issues (CGIS) (p. 276)
- Continuing Studies Seminar (CSSE) (p. 276)
- Conversational Medical Chinese (CHI) (p. 277)
- Creativity & Ldshp Core (ONL) (CLCX) (p. 277)
- Creativity & Leadership Core (CLC) (p. 277)
- Criminal Justice (CRJ) (p. 278)
- Criminal Justice (Online) (CRJX) (p. 278)
- Cytogenetic Technology (CG) (p. 278)
- Cytogenetic Technology (CTG) (p. 279)
- Cytotechnology (CT) (p. 279)
- Cytotechnology Post Certificat (CTP) (p. 281)

D

- Debating Global Issues (DBTG) (p. 281)
- Debating US Issues (DBTU) (p. 281)
- DEC Frameworks (DECF) (p. 281)
- DEC Generic Courses (DECG) (p. 281)
- DEC Methods (DECM) (p. 282)
- DEC Process (DECP) (p. 282)
- DEC Systems (DECS) (p. 282)
- Dental Hygiene (DH) (p. 282)
- Design Foundations (DSGF) (p. 282)
- Design, Engr. & Commerce (DEC) (p. 283)
- Diag Imag Computed Tomography (DIC) (p. 283)
- Diag Imag Magnetic Resonance (DIM) (p. 283)
- Diag Imag Nuclear Medicine (DIN) (p. 284)
- Diagnostic Imaging (DI) (p. 284)
- Diagnostic Imaging Adv Plc (DIA) (p. 285)
- Diagnostic Imaging Cardiovasc (DIV) (p. 285)
- Diagnostic Imaging Med Sonog (DIS) (p. 286)
- Diagnostic Imaging Radiography (DIR) (p. 287)
- Digital Design (DIGD) (p. 288)

- Digital Design Media (CIDD) (p. 290)
- Directed Learning (DRLN) (p. 290)
- Drawing (DRAW) (p. 290)

E

- Economics (ECON) (p. 290)
- Economics (Online) (ECNX) (p. 291)
- Education (EDUC) (p. 291)
- Electives (ELEC) (p. 291)
- Emergency Medical Services (EMS) (p. 293)
- Engineering (ENGR) (p. 293)
- English (ENGL) (p. 296)
- English (Online) (ENGX) (p. 296)
- English as Second Language (ESL) (p. 297)
- Ethics (ETHC) (p. 297)
- Exercise Science (EXSC) (p. 297)

F

- Fashion Design (FASD) (p. 300)
- Fashion Drawing (FASR) (p. 303)
- Fashion Management (FASM) (p. 303)
- Finance (FIN) (p. 305)
- Finance (Online) (FINX) (p. 306)
- First Year Seminar (FYS) (p. 306)
- French (FREN) (p. 306)

G

- General Studies (GNST) (p. 307)
- Genetics (GE) (p. 307)
- German (GER) (p. 307)
- Global Citizenship (GCIT) (p. 307)
- Global Diversity (GDIV) (p. 309)
- Global Portfolio (GLOB) (p. 310)
- Graphic Design (GRPH) (p. 310)
- Green Home Basics (CGHB) (p. 312)

H

- Health (HLTH) (p. 312)
- Health Administration (HLAD) (p. 312)
- Health Care Administration (HCA) (p. 312)
- Health Care Administration ONL (HCAX) (p. 313)
- Health Policy (MD) (HPOL) (p. 313)
- Health Sciences (HSC) (p. 313)
- Health Sciences (JCHP) (HSCI) (p. 313)
- Health Sciences (Online) (HSCX) (p. 316)
- Health Services (HLSV) (p. 316)
- Health Services (Online) (HLSX) (p. 316)
- Health Services Management (HSM) (p. 316)
- Health Services Mgmt (Online) (HSMX) (p. 317)
- Health Studies (HST) (p. 318)
- Health Studies (Online) (HSTX) (p. 318)
- Healthcare Management Info Sys (HMIS) (p. 318)

- Healthcare Quality & Safety (HQS) (p. 319)
- History (HIST) (p. 319)
- History (Online) (HISX) (p. 319)
- Honors (HONR) (p. 319)
- Human Resources (HRM) (p. 320)
- Human Resources (Online) (HRMX) (p. 321)
- Humanities (HUMN) (p. 322)
- Humanities (Online) (HUMX) (p. 323)

I

- Industrial Design (INDD) (p. 323)
- Industrial Engineering (IENG) (p. 326)
- Information Systems (INFO) (p. 327)
- Information Technology (IT) (p. 327)
- Information Technology-Online (ITX) (p. 329)
- Integrative Seminar (ISEM) (p. 330)
- Interdepartmental (MD) (IDPT) (p. 333)
- Interdisciplinary (IDSC) (p. 333)
- Interdisciplinary Studies (INDS) (p. 334)
- Interior Decorating (CIND) (p. 334)
- Interior Design (INTD) (p. 334)
- Internship (INTN) (p. 337)
- Intl Textual Analysis (TXIS) (p. 338)
- Italian (ITAL) (p. 338)

J

- Japanese (JAPN) (p. 338)
- Jr Sem (Integrative Prof Sem) (JINT) (p. 339)
- Jr. Sem. Liberal Arts (JSLA) (p. 339)

K

- Knitting (KNIT) (p. 340)

L

- Laboratory Sciences (LS) (p. 341)
- Language (LANG) (p. 342)
- Law (LAW) (p. 342)
- Law Enforcement (LAWE) (p. 344)
- Law Enforcement (Online) (LAWX) (p. 344)
- Leadership & Homeland Security (LHS) (p. 344)
- Leadership (LDSP) (p. 345)
- Leadership (Online) (LDSX) (p. 346)
- Legal Studies (Online) (LCSX) (p. 346)
- Literature (LIT) (p. 346)

M

- Management (MGMT) (p. 346)
- Management (Online) (MGTX) (p. 350)
- Management Of Info Systems (MIS) (p. 351)
- Marketing (MKTG) (p. 351)
- Marketing (Online) (MKTX) (p. 353)
- Math (Online) (MATX) (p. 353)

- Mathematics (MATH) (p. 353)
- Mechanical Engineering (MENG) (p. 355)
- Medical Assistant (MA) (p. 356)
- Medical Coding (CODP) (p. 356)
- Medical Lab Science (Online) (MLSO) (p. 357)
- Medical Laboratory Science (MLS) (p. 358)
- Medical Technology (MT) (p. 360)
- Medical Technology Adv Plc (MTAP) (p. 362)
- Mgmt of Info Systems (Online) (MISX) (p. 362)
- Midwifery (MIDW) (p. 362)
- Minor Course (MINR) (p. 362)
- Molecular Biology (MB) (p. 362)
- Music (MUSC) (p. 362)
- Music (Online) (MUSX) (p. 362)

N

- National Student Exchange (NSE) (p. 362)
- Neuroscience (NS) (p. 362)
- Nursing (NU) (p. 363)
- Nutrition (NUTR) (p. 365)
- Nutrition (Online) (NUTX) (p. 365)

O

- Occupational Therapy (OT) (p. 365)
- Occupational Therapy Assistant (OTA) (p. 366)
- Occupational Therapy Certifica (OTC) (p. 367)
- Operational Excellence (OPX) (p. 368)
- Ota Fieldwork Workshop (COTF) (p. 368)

P

- Pharmacology (MD) (PHAR) (p. 368)
- Philosophy (Online) (PHLX) (p. 368)
- Philosophy (PHIL) (p. 368)
- Photography (POTO) (p. 369)
- Physical Therapy (PT) (p. 370)
- Physician Assistant (PAST) (p. 371)
- Physics (Online) (PHYX) (p. 372)
- Physics (P4) (PHY) (p. 372)
- Physics (PHYC) (p. 372)
- Physiology (MD) (PHYS) (p. 373)
- Placement Math (PLMA) (p. 373)
- Placement Writing (PLWR) (p. 373)
- Political Science (POSC) (p. 373)
- Print Design (PRNT) (p. 373)
- Prior Learning Assessment (PLA) (p. 374)
- Professional Coursework (PROF) (p. 374)
- Psychology (Online) (PSYX) (p. 374)
- Psychology (PSYC) (p. 374)
- Public Health (PUBH) (p. 379)

R

- Rad Sci Cardiac Sonography (RSCS) (p. 379)
- Rad Sci Computed Tomography (RSC) (p. 380)
- Rad Sci CT Certificate (RSCC) (p. 380)
- Rad Sci General Sonography (RSS) (p. 381)
- Rad Sci Inv Cardiovasc Tech (RSI) (p. 382)
- Rad Sci Magnetic Resonance (RSM) (p. 382)
- Rad Sci Medical Dosimetry (RSD) (p. 383)
- Rad Sci Nuclear Medicine (RSN) (p. 384)
- Rad Sci PET/CT (RSPC) (p. 385)
- Rad Sci Radiation Therapy (RST) (p. 385)
- Rad Sci Radiography (RSR) (p. 386)
- Rad Sci Vascular Technology (RSV) (p. 387)
- Radiologic Science (RS) (p. 389)
- Respiratory Therapy (RESP) (p. 389)

S

- Science (SCI) (p. 390)
- SDE Interdisciplinary Courses (SDE) (p. 392)
- Service (SERV) (p. 393)
- Social Sciences (SOSC) (p. 393)
- Sociology (Online) (SOCX) (p. 393)
- Sociology (SOC) (p. 393)
- Spanish (SPAN) (p. 394)
- Special Topics in Design (DSGN) (p. 394)
- Statistics (Online) (STAX) (p. 394)
- Statistics (STAT) (p. 394)
- Sustainability (SUST) (p. 395)

T

- Telehealth (TELH) (p. 397)
- Test Subject Title (TEST) (p. 397)
- Textile (TEXT) (p. 397)
- Textile Chemistry (TEXC) (p. 400)
- Textile Engineering (TENG) (p. 400)
- Textual Analysis (ITXA) (p. 400)

V

- Visual Studies Design (VDES) (p. 400)
- Visual Studies Drawing (VDRW) (p. 400)

W

- Weaving (WEAV) (p. 401)
- Writing (WRIT) (p. 401)

American Diversity (ADIV)

ADIV 1XX: American Diversity Placeholder

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

ADIV 2XX: American Diversity Placeholder**Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**ADIV 198: Transfer American Diversity****Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**ADIV 200: American Social Justice**

This course examines difference, inequality, and social change in the United States through the lens of social justice movements, grassroots and national organizations, protest and political activism, and advocacy and service organizations. Students will learn about major American social movements and the ideas that animate them, and will research a local or national organization during the semester. Using scholarly texts as well as films, music, or other media, this course takes an interdisciplinary approach to understanding the impact of movements and organizations on the dynamics of diversity and equity in U.S. society.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** (WRIT 101 or WRIT 101G or WRIT 101S) and (AMST 114 or DBTU 114 or AMST 198 or AVIS 198 or DBTU 198 or AVIS 101) [Min Grade: D-]**Schedule Type:** Lecture**ADIV 201: Defining American Voices**

How do individual American voices influence and interact with American culture? Students in this course explore the development of key issues in American identity and culture through individual expressions such as memoir, song, fiction, film, photography, and poetry. By examining ideas and products of influential and diverse American thinkers from a variety of disciplines, this course approaches American culture from a multivocal, multimodal perspective.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** (WRIT 101 or WRIT 101G or WRIT 101S) and (AMST 114 or DBTU 114 or AMST 198 or AVIS 198 or DBTU 198 or AVIS 101) [Min Grade: D-]**Schedule Type:** Lecture**ADIV 202: Immigrant America**

This course examines cultural and social issues surrounding immigration in the U.S., in the past and present. Students will analyze historical, literary, and cultural texts of immigrants and immigration and navigate multiple perspectives on related issues like assimilation and acculturation, race and xenophobia, language and culture, and ethnic experience. Students will develop their Confidence competency by using reasoning and evidence to challenge arguments and reach conclusions about immigration and American diversity.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** (WRIT 101 or WRIT 101G or WRIT 101S) and (AMST 114 or DBTU 114 or AMST 198 or AVIS 198 or DBTU 198 or AVIS 101) [Min Grade: D-]**Schedule Type:** Lecture, On-Line**ADIV 203: Jefferson and Hemings**

This course explores diversity in America through the political and cultural legacy of Thomas Jefferson. Jefferson's approach to democracy, particularly perspectives on freedom, nationality, culture, and race, have shaped the current American landscape. Students examine Jefferson's legacy through close analysis of historical texts, as well as through analysis of contemporary representations of these texts and of Jefferson himself. Students will identify how Jefferson's perspectives on individual rights and freedom inform cultural values that permeate American institutions, particularly surrounding issues of difference and inequality.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** (WRIT 101 Min Grade: D or WRIT 101G Min Grade: D or WRIT 101S Min Grade: D) and (AMST 114 Min Grade: D or DBTU 114 Min Grade: D or AMST 198 or AVIS 198 or DBTU 198 or AVIS 101 Min Grade: D-)**Schedule Type:** Lecture**ADIV 204: Red and Blue America**

Red and Blue America: Political Subcultures in the U.S. surveys the diversity of current political identities in the United States and traces their origins. Beginning with an examination of the dividing lines between liberal and conservative viewpoints, students consider the historical and political forces that created this central division and how it shapes today's political landscape. The course then reviews the various political subcultures to both the left and the right of the mainstream parties to assess their role in American culture and politics. Prerequisites: DBTU-114, WRIT-101/101G

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** (WRIT 101 or WRIT 101G or WRIT 101S) and (AMST 114 or DBTU 114 or AVIS 198 or AMST 198 or DBTU 198 or AVIS 101) [Min Grade: D-]**Schedule Type:** Lecture, On-Line**ADIV 206: Gender & Diversity in the US**

This course focuses on recent developments in gender scholarship in a U.S. context. It examines how gender has been conceptualized and analyzed, historically and in the present day. Topics considered may include the formation of masculinities and femininities, the intersections between gender, sexual orientation, class, race, age and place, and the significance of gender in personal and professional contexts. Readings are drawn from a variety of disciplines depending on the instructor. Prerequisites: DBTU-114, WRIT-101/101G

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** (WRIT 101 or WRIT 101G or WRIT 101S) and (AMST 114 or DBTU 114 or AVIS 198 or AMST 198 or DBTU 198 or AVIS 101) [Min Grade: D-]**Schedule Type:** Lecture

ADIV 210: The African Amer. Experience

This course explores African Americans' struggle for freedom and equality in American society. It examines the social, economic, political and cultural realms of African American life with some exploration of cultural origins in West Africa. Students read in primary sources and use literary evidence in an interdisciplinary effort to understand the past and explore contemporary issues in American society.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** (WRIT 101 or WRIT 101G or WRIT 101S) and (AMST 114 or DBTU 114 or AMST 198 or DBTU 198 or AVIS 101) [Min Grade: D-]**Schedule Type:** Lecture**ADIV 211: African American Studies**

This course explores American life, past and present, from the experiences and perspectives of African Americans. We will examine African Americans' struggles for equity in U.S. society and how their encounters with different forms of discrimination and exclusion fit into broader narratives of oppression and civil rights in the U.S. In addition to considering how African American communities have responded to and resisted inequality, we will also assess their representation, inclusion and influence in the social, economic, political and cultural realms of American life. Using scholarly texts, memoirs, films, music and other media, this course takes an interdisciplinary approach towards understanding the impact of African Americans on the dynamics of diversity and equity in U.S. society.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** (WRIT 101 or WRIT 101G or WRIT 101S) and (DBTU 114 or AMST 114 or AMST 198 or AVIS 198 or DBTU 198 or AVIS 101) [Min Grade: D-]**Schedule Type:** Lecture**ADIV 212: Asian American Studies**

This course explores American life, past and present, from the experiences and perspectives of Asian Americans. We will examine Asian Americans' struggles for equity in U.S. society and how their encounters with different forms of discrimination and exclusion fit into broader narratives of oppression and civil rights in the U.S. In addition to considering how Asian American communities have responded to and resisted inequality, we will also assess their representation, inclusion and influence in the social, economic, political and cultural realms of American life. Using scholarly texts, memoirs, films, music and other media, this course takes an interdisciplinary approach towards understanding the impact of Asian Americans on the dynamics of diversity and equity in U.S. society.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** (WRIT 101 or WRIT 101G or WRIT 101S) and (AMST 114 or DBTU 114 or AMST 198 or AVIS 198 or DBTU 198 or AVIS 101) [Min Grade: D-]**Schedule Type:** Lecture**ADIV 213: Jewish American Studies**

This course explores American life, past and present, from the experiences and perspectives of Jewish Americans. We will examine Jewish Americans' struggles for equity in U.S. society and how their encounters with different forms of discrimination and exclusion fit into broader narratives of oppression and civil rights in the U.S. In addition to considering how Jewish American communities have responded to and resisted inequality, we will also assess their representation, inclusion and influence in the social, economic, political and cultural realms of American life. Using scholarly texts, memoirs, films, music and other media, this course takes an interdisciplinary approach towards understanding the impact of Jewish Americans on the dynamics of diversity and equity in U.S. society.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** (WRIT 101 or WRIT 101G or WRIT 101S) and (AMST 114 or DBTU 114 or AMST 198 or AVIS 198 or DBTU 198 or AVIS 101) [Min Grade: D-]**Schedule Type:** Lecture**ADIV 214: Race in America**

This course highlights the role of race and ethnic identity in American politics and culture, examining how concepts of race have evolved through time and space, and how the racial identities of African Americans, Asian Americans, Latino/a and Hispanic Americans, European Americans, Middle Eastern Americans, Native Americans and other groups have interacted to shape the American nation. Students and faculty will examine together how the definition and use of racial categories have influenced the power dynamics of American society and generated social movements advocating for greater racial equality and opportunity. This interdisciplinary course combines history, sociology, politics, culture and economics to illuminate how racial thought has shaped America's past and present.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** (WRIT 101 or WRIT 101G or WRIT 101S) and (AMST 114 or DBTU 114 or AMST 198 or AVIS 198 or DBTU 198 or AVIS 101) [Min Grade: D-]**Schedule Type:** Lecture**ADIV 215: Latinx American Studies**

This course explores American life, past and present, from the experiences and perspectives of Latinx Americans. We will examine Latinx Americans' struggles for equity in U.S. society and how their encounters with different forms of discrimination and exclusion fit into broader narratives of oppression and civil rights in the U.S. In addition to considering how Latinx American communities have responded to and resisted inequality, we will also assess their representation, inclusion and influence in the social, economic, political and cultural realms of American life. Using scholarly texts, memoirs, films, music and other media, this course takes an interdisciplinary approach towards understanding the impact of Latinx Americans on the dynamics of diversity and equity in U.S. society.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** (WRIT 101 or WRIT 101G or WRIT 101S) and (AMST 114 or DBTU 114 or AMST 198 or AVIS 198 or DBTU 198 or AVIS 101) [Min Grade: D-]**Schedule Type:** Lecture

ADIV 216: LGBTQIA American Studies

This course explores American life, past and present, from the experiences and perspectives of LGBTQIA Americans. We will examine LGBTQIA Americans' struggles for equity in U.S. society and how their encounters with different forms of discrimination and exclusion fit into broader narratives of oppression and civil rights in the U.S. In addition to considering how LGBTQIA American communities have responded to and resisted inequality, we will also assess their representation, inclusion and influence in the social, economic, political and cultural realms of American life. Using scholarly texts, memoirs, films, music and other media, this course takes an interdisciplinary approach towards understanding the impact of LGBTQIA Americans on the dynamics of diversity and equity in U.S. society.

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: (WRIT 101 or WRIT 101G or WRIT 101S) and (AMST 114 or DBTU 114 or AMST 198 or AVIS 198 or DBTU 198 or AVIS 101) [Min Grade: D-]

Schedule Type: Lecture

ADIV 217: Muslim American Studies

This course explores American life, past and present, from the experiences and perspectives of Muslim Americans. We will examine Muslim Americans' struggles for equity in U.S. society and how their encounters with different forms of discrimination and exclusion fit into broader narratives of oppression and civil rights in the U.S. In addition to considering how Muslim American communities have responded to and resisted inequality, we will also assess their representation, inclusion and influence in the social, economic, political and cultural realms of American life. Using scholarly texts, memoirs, films, music and other media, this course takes an interdisciplinary approach towards understanding the impact of Muslim Americans on the dynamics of diversity and equity in U.S. society.

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: (WRIT 101 or WRIT 101G or WRIT 101S) and (AMST 114 or DBTU 114 or AMST 198 or AVIS 198 or DBTU 198 or AVIS 101) [Min Grade: D-]

Schedule Type: Lecture

ADIV 218: Studying Phila: Diversity

The diversity found in Philadelphia has long been a topic of study for historians, anthropologists, and linguists. Sociologists, including Max Weber and W.E.B. Du Bois, have been particularly active in analyzing the city's diverse populations and how they have experienced complex social processes such as industrialization, immigration, and segregation. In this course, we will read important scholarship that examines Philadelphia's diverse social fabric: from Center City, to Germantown, and elsewhere. How can these studies change how we think about our city? Moreover, what can our analyses of Philadelphia's diversity teach us about the history of, and future for, social modernity?

Credits: 3

College: Jefferson College of Life Sciences

Prerequisites: (WRIT 101 or WRIT 101G or WRIT 101S) and (AMST 114 or DBTU 114 or AMST 198 or AVIS 198 or DBTU 198 or AVIS 101) [Min Grade: D-]

Schedule Type: Lecture

ADIV 219: Cities & Diversity in the U.S.

This course examines the relationship between urban spaces and the lived experience of Americans, focusing on how racial, gender, and class identities in the U.S. affect the creation, organization, and perception of urban spaces as well as the quality of life of those who inhabit them. Topics may include redlining, segregation, urban renewal, gentrification, deindustrialization, and feminist perspectives of space. The course draws from a variety of materials including history, anthropology, pop culture, and literature to cover both subjective and material experience. This course can be counted towards the Design Humanities certification.

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: (WRIT 101 or WRIT 101G or WRIT 101S) and (AMST 114 or DBTU 114 or AVIS 101 or AMST 198 or AVIS 198 or DBTU 198) [Min Grade: D-]

Schedule Type: Hybrid, Lecture, On-Line

ADIV 220: Health & U.S. Diversity

This course explores historical and contemporary issues related to social justice and disparities in public health and medicine in the United States. We will analyze how structural inequities impact the ability of various groups to access and trust healthcare, covering topics such as the history of public health in the U.S., eugenics, ableism, xenophobia and disease, reproductive justice, lack of representation in the health field, and how the intersections of race, class, gender, disability, sexual orientation, and place shape health disparities in the United States. This course can be counted towards the Health Humanities certification.

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: (WRIT 101 or WRIT 101G or WRIT 101S) and (AMST 114 or DBTU 114 or AVIS 101 or AMST 198 or AVIS 198 or DBTU 198) [Min Grade: D-]

Schedule Type: Hybrid, Lecture, On-Line

ADIV 221: Environmental Justice in America

Communities of color and low-income neighborhoods in the United States suffer disproportionately from exposure to environmental pollution and toxic waste, lack of access to clean water, and the effects of ecological degradation. These inequalities, based in historical patterns of racism and class inequality, have resulted in both biological and social harm, yet have also produced community resistance, political advocacy, and activism that have reshaped how society views the relationship between humans and the environment. In this class, students will explore how race, class, and gender influence how we experience our environment. Using case studies from rural, urban, and Indigenous reservation communities across the United States, this class will explore how power, inequality, and nature intersect. This course can be counted towards the Environmental Humanities certification.

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: (WRIT 101 or WRIT 101G or WRIT 101S) and (AMST 114 or DBTU 114 or AVIS 101 or AVIS 198 or AMST 198 or DBTU 198) [Min Grade: D-]

Schedule Type: Hybrid, Lecture, On-Line

American Studies (AMST)

AMST 198: Transfer American Studies

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

Animation (ANIM)

ANIM 3XX: Animation Designated Elective

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture

ANIM 201: Introduction to Animation

This course will introduce students to the practice of animation and the various techniques employed in its production. Short exercises involving hand-drawn, stop-motion and other non-digital means will serve to expose students to the fundamental concepts involved. Students will then apply these concepts to their digital toolkit in order to create a longer final project.

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture, Studio

ANIM 202: Storytelling/Storyboarding

This course will seek to give students a strong foundation in storytelling. Emphasis will be placed on visual storytelling, as the storyboard is the script for animation. In addition to story structure, students will explore screen composition and editing as means of relating narrative content. The class will consist of several storyboard exercises, culminating in the production of an animatic, a filmed version of the storyboard with a soundtrack.

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture, Studio

ANIM 204: Design Essentials Digital Media

This course is an introduction to the necessary graphic design methods, materials and vocabulary used in the animation and digital media professions. This studio emphasizes concepts in design including color theory, typography, visual abstraction & visual metaphor. Students also get a foundation understanding of Adobe Illustrator, InDesign and Photoshop. Prerequisite : DSGNFND- 203 VSDS-101 ADFND-102 or INDD-102; Minimum grade C;

Credits: 4

College: School of Design & Engineering

Schedule Type: Studio

ANIM 206: Typo & Icon for Digital Media

This course emphasizes visual design, typography, iconography and technologies for on-screen design. Students in this course have a primary focus on type and icons and how shape, size, and style convey deep meaning in a digital user experience. Additionally, students explore in-depth issues with screen sizes, resolution, color variance, and use of typography and iconography in motion. Students will demonstrate an understanding of properly licensing and creating fonts & icons using modern technology platforms for integration into digital products.

Credits: 4

College: School of Design & Engineering

Schedule Type: Lecture, Lecture/Studio Combination, Studio

ANIM 301N: Motion Graphics I

This major studio course explores time and motion in the creation of primarily graphic narratives. The techniques of abstraction, motion typography and musical synchronization are studied in the context of increasingly complex projects. A major aspect of the course will be the screening of both abstract films and reels from contemporary motion graphics films.

Credits: 4

College: School of Design & Engineering

Schedule Type: Lecture, Lecture/Studio Combination, Studio

ANIM 301Z: Motion Graphics I

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture, Studio

ANIM 302: Intro to VR Design

This studio course focuses on exploring the basics of virtual reality including understanding virtual environments and how users interact within a virtual space. Two major components of the class are contemporary practical examples and tutorials with new and emerging technologies. Student projects will provide a space for a hands on learning experience. Class discussion portions of the course will allow for further explorations on current and future VR implementations and their significance in the digital era.

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture, Lecture/Studio Combination

ANIM 303: History of Animated Cinema

WRITING INTENSIVE: This class will expose students to the range of animated cinema, from the early days of film to contemporary computer-generated work. Class will consist of screening and discussing a range of short and feature-length films. During the semester, students will be expected to write responses to the films as well as conduct further research into the medium and its history. [Writing Intensive]

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture

ANIM 305: Comics & Graphic Narrative

An introduction to the creation and marketing of comic strips, comic books and graphic novels, this course will emphasize graphic narrative theory and structure, the creation of characters and stories suited for the medium, strategies for monetizing the work in the real world and the development of each student's individual style.

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture

ANIM 307: 3D Modeling

This course will give students a foundation in the concepts and techniques of 3D modeling and rendering. Specific attention will be paid to modeling environments, objects and characters. Students will explore polygonal, NURBS and subdivision-surface modeling and their respective workflows.

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture, Lecture/Studio Combination, Studio

ANIM 308N: 3D Animation

This course builds upon the concepts learned in 3D modeling to include animation and character setup. Special attention will be given to applying the techniques of traditional character animation to this contemporary medium. Projects will range from short animation exercises to a longer, character-driven piece. In addition, the class will view and discuss current and classic animated film.

Credits: 4

College: School of Design & Engineering

Prerequisites: ANIM 307 [Min Grade: C]

Schedule Type: Lecture, Studio

ANIM 308Z: 3D Animation

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture, Studio

ANIM 310: Digital Audio Production

This course introduces students to intermediate digital audio concepts and skills for use in a broad array of multimedia including instructional applications. Students will generate a variety of professional grade digital audio artifacts using industry-standard software and processes; instruction will focus on common elements of digital audio production to allow transfer of knowledge to various tools and platforms rather than focusing solely on the mastery of a single tool. Prerequisite: DIGD-318 Media Production

Credits: 3

College: School of Design & Engineering

Prerequisites: DIGD 318 [Min Grade: D]

Schedule Type: Lecture, Lecture/Studio Combination, Studio

ANIM 312: Motion Graphics II

This class explores the concepts covered in Motion Graphics I but with the introduction of 3D graphics and video as elements of motion graphics. In addition, the mediums of dance, photography, architecture and painting will be discussed as possible inspirations.

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture, Studio

ANIM 318: 3D Animation II

Credits: 3

College: School of Design & Engineering

Schedule Type: Studio

ANIM 398: Animation Designated Elective

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture

ANIM 407N: Advanced Topic in 3D Animation

This class will allow students to delve deeper into areas covered in prior 3D classes. Topics include advanced modeling techniques, character setup, special effects, dynamics, lighting and rendering. The creation of a character interacting with its environment will drive the projects in this class.

Credits: 4

College: School of Design & Engineering

Prerequisites: ANIM 308N [Min Grade: B-]

Schedule Type: Lecture, Lecture/Studio Combination, Studio

ANIM 407Z: Advanced Topic in 3D Animation

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture, Studio

ANIM 497N: Animation Capstone I

WRITING INTENSIVE: This course focuses on preparing the student to create a short film in the Spring. The pre-production phase includes conceptualizing the story, writing the script and creating storyboards. In the process of preparing, students will also learn to schedule, budget and distribute their film. Before the end of the semester, students will have all necessary materials to begin production on their short film.

Credits: 6

College: School of Design & Engineering

Prerequisites: ANIM 312 and ANIM 308N [Min Grade: D]

Schedule Type: Lecture, Lecture/Studio Combination, Studio

ANIM 497Z: Animation Capstone I

Credits: 4

College: School of Design & Engineering

Schedule Type: Lecture, Studio

ANIM 499: Digital Anim. Capstone Project

This course represents the culminating experience for Digital Animation students. Students are required to produce and deliver a short film, realizing the concepts they developed in the previous semester and synthesizing the knowledge and skills from the preceding courses. In addition, students will be required to produce a finished portfolio appropriate to the industry in which they will be pursuing further work. Pre-requisite: ANIM-497: Digital Animation Capstone Project Preparation, ANIM-407: Advanced Topics in 3D Animation.

Credits: 5

College: School of Design & Engineering

Prerequisites: ANIM 497 [Min Grade: D]

Schedule Type: Lecture

Anthropology (ANTH)

Applied Business Analytics (ABA)

ABA 201: Intro to Business Analytics

Descriptive statistical measures and probability theory are combined to provide the basis for statistical and analytic based decision-making techniques. Software is introduced for data visualization techniques and for analytics on spreadsheets. Topics covered: data analytics using spreadsheets; data presentation and visualization; measures of central tendency and variability; basic probability laws; binomial, 't,' and normal distributions; confidence intervals.

Credits: 3

College: School of Business

Schedule Type: Lecture, On-Line

ABA 202: Statistical Data Analytics

The Statistical Data Analytics course uses statistical methods to analyze data in the areas of estimation, inference and prediction. This includes applications of confidence intervals and hypothesis testing, simple and multiple linear regression analysis to estimate relationships between variables and make predictions, models for time series forecasting and variance and chi-square tests. Excel and more advanced statistical software will be utilized to analyze data.

Credits: 3

College: School of Business

Prerequisites: ABA 201 or STAT 201 [Min Grade: D]

Schedule Type: Lecture, On-Line

ABA 301: Data Mining & Predic Analytics

Utilizing MS Excel and Database Access, as well as IBM Analytics (SPSS) software, students will: become acquainted with essential data mining and machine learning concepts, practice regression, cluster, classification and decision tree analysis methods; learn data unsupervised and supervised learning models, and apply them through the course project.

Credits: 3**College:** School of Business**Prerequisites:** ABA 201 or STAT 201 [Min Grade: D]**Schedule Type:** Lecture**ABA 398: ABA Transfer Credit****Credits:** 3**College:** School of Business**Schedule Type:** Lecture**ABA 401: Operations and Data Analytics**

This course introduces the student to various Operations and Supply Chain Management tools and quantitative decision making models. Quantitative decision making adds value to data by building models that aid the prescriptive decision-making process. This course focuses on model formulation and the rationale behind the quantitative tools and techniques without delving deep into the mathematical theory. Topics in this course include Forecasting, Statistical Process Control, Scheduling, Decision Analysis, and various Optimization models such as Linear and Integer Programming.

Credits: 3**College:** School of Business**Prerequisites:** ABA 201 or STAT 201 [Min Grade: D]**Schedule Type:** Lecture, On-Line

Arch & Interiors History (AHST)

AHST 205: Built Environ: Global Origins

By tracing significant historical themes, this course spotlights canonic examples of Western and non-Western architecture, interiors, and landscape design from Ancient times to the Medieval period. Major monuments of Europe, Asia, Africa, and the Americas are examined as solutions to technical problems, utilizing available materials, and as spatial and structural embodiments of cultural belief systems. Students acquire a working vocabulary for both analyzing and evaluating the built environment and material culture.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Prerequisites:** WRIT 101 or WRIT 101G or WRIT 101S [Min Grade: D]**Schedule Type:** Lecture**AHST 206: Built Env in Age of Exploration**

Focusing upon global changes relative to patterns of patronage, and the intersection of church and state, this course highlights significant examples of Western and non-Western architecture and interiors produced from the 14th through the mid-18th centuries. Each case study is situated within a broad historical context and understood as paradigmatic of a period's values and aspirations that are given concrete form through available materials, construction methods, and technologies. Students acquire a working vocabulary for both analyzing and evaluating architecture, interiors, and material culture.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Prerequisites:** AHST 205 [Min Grade: D]**Schedule Type:** Lecture**AHST 305: Early Mod Arch&Int 3**

History III: Early Modern Architecture and Interiors (1750-1930) This course chronicles the impact of Enlightenment thinking and of the shifting definitions of modernity upon architecture and interior design by tracing the transition from Historicism to the International Style. New notions of progress and evolution; industrialization and urbanization; and debates concerning the role of the machine and the meaning of ornament are set against major technological advances. Students examine key theoretical texts and accomplish archival research on an historic structure in the Philadelphia area. [Writing Intensive]

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Prerequisites:** AHST 206 [Min Grade: D]**Schedule Type:** Lecture**AHST 306: Hist 4 Modn/Contmp Arch & Int**

History IV: Modern/Contemporary Architecture and Interiors (1930-Present) This course analyzes major movements and theoretical constructs that have dominated architecture and interior design from the post-World War II period until the present. Discussion focuses upon societal and environmental aspects? politics, economics, science and technology, psychology, etc. ? that shape the greater context for architecture, interiors and the allied arts. Students examine key theoretical texts to evaluate current thinking relative to issues such as sustainability, critical regionalism, phenomenology and the role of the digital in contemporary practice. [Writing Intensive]

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Prerequisites:** AHST 305 [Min Grade: D]**Schedule Type:** Lecture

Architectural Engineering (AREN)

AREN 200: Architect Engineering Design**Credits:** 4**College:** School of Design & Engineering**Schedule Type:** Lab**AREN 301: Structural Analysis I**

Structural Analysis I provides the basis and serves as a foundation for subsequent advanced Structural Analysis courses. Assumptions, principles of equilibrium in determining structures Reactions, bending moments and shear diagrams will be discussed. Additionally, analysis of plane and space trusses. Influence lines. Computer analysis of determinate trusses. Optimization in structural systems. Approximate methods of analysis for indeterminate structures. Determination of displacements by virtual work. Castiglione's theorem and moment area theorems.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture**AREN 303: Struct. Design Compres Element****Credits:** 3**College:** School of Design & Engineering**Prerequisites:** AREN 301 [Min Grade: D]**Schedule Type:** By Appointment - 1 student, Lecture

AREN 305: Struct Design Tensile Elements

The main objective of this course is to provide students with a rational basis of the design of tensile members, elements and structures through advanced understanding of material and structural behavior. The subject will be approached by looking into the behavior of steel, timber and fabrics at different levels; material level, element level, and structural and systems level.

Credits: 3

College: School of Design & Engineering

Prerequisites: AREN 301 [Min Grade: D]

Schedule Type: Lecture

AREN 307: Soil Mechanics

Credits: 3

College: School of Design & Engineering

Prerequisites: ENGR 301 [Min Grade: D]

Schedule Type: Lecture

AREN 400: Mech & Engr Sys for Buildings

This course will introduce basic principles, types and applications of mechanical and electrical systems for buildings. Topics include air conditioning, heating, fire protection, electrical power, and electrical lighting. Students will learn various design methods that impact building environment and indoor air quality.

Credits: 3

College: School of Design & Engineering

Prerequisites: ENGR 322 [Min Grade: D]

Schedule Type: By Appointment, Lecture

Architectural Studies (ARST)

ARST 221: Contemporary Preservation

This course introduces the multi-faceted field of contemporary preservation, examining fundamental principles and practices used today by historians, architectural conservators, designers, archaeologists, non-profit museum directors, and professional advocates, with attention given to issues of sustainability and adaptive reuse. Students learn through guest lectures, case studies, class discussion, field trips and "hands-on" projects.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Prerequisites: AHST 206 [Min Grade: D]

Schedule Type: Lecture

ARST 221AC: Contemporary Preservation

This course introduces the multi-faceted field of contemporary preservation, examining fundamental principles and practices used today by historians, architectural conservators, designers, archaeologists, non-profit museum directors, and professional advocates, with attention given to issues of sustainability and adaptive reuse. Students learn through guest lectures, case studies, class discussion, field trips and "hands-on" projects.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: By Appointment - 1 student, Lecture

ARST 266: Building Conservation

Through site visits, demonstrations, laboratory exercises, guided research, and discussions, this course provides a comprehensive overview of historic building materials and the ongoing processes of material deterioration, contemporary approaches to treatment, and sustainability concepts of embodied energy and life cycle analysis as these pertain to building conservation. Topics include: investigative techniques for historic structures; diagnosing existing conditions, including non-destructive and laboratory testing methods; and designing appropriate interventions to remedy observed problems. Students will collect, present, critically review findings and formulate recommendations for conservation.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Prerequisites: ARCH 102 or INTD 102 or LARC 102 [Min Grade: D]

Schedule Type: Lecture, Lecture/Studio Combination, Studio

ARST 300: Exhibition Desg & Planning

The renaissance of museums, product display, and exhibitions has made the making of exhibitions a significant, recognizable, and highly valued skill as well as profession. This course covers the fundamentals of exhibition design, as well as its history, theory and practice. Through the use of lecture based case studies, field trips to exhibitions, and studio work, students will not only learn to develop, design, build, and document exhibitions, but to prepare written design proposals, didactic exhibition material, and exhibition critiques. Emphasis will be on the narrative used to create exhibitions, employing scale, color, materials, lighting, sound, and graphics.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Prerequisites: INTD 102 or LARC 102 or INDD 102 or DSGF 203 [Min Grade: D]

Schedule Type: Lecture, Studio

ARST 302: Unco the Past:Tools,Methods&St

Buildings are silent witnesses to the past. Rediscovering the "stories" of a building's many lives relies upon piecing together archival, physical, and ethnographic evidence. This course affords in-depth study of the techniques, strategies, and resources employed to track down data, using written, graphic, and oral sources. Field trips to key archival repositories provide students with first-hand experience in collecting and interpreting documentary evidence to develop historical narratives.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Prerequisites: AHST 206 [Min Grade: D]

Schedule Type: Lecture

ARST 324: Arch Forensics and Documentati

In this course students decode a building's past by deciphering and recording the physical evidence of its evolution. Students learn the fundamentals of professional field techniques used to document and interpret historic structures and places, utilizing sketching and technical drawing via hand drafting and computer modeling. Through field work and labs, students survey, sketch, draft, and annotate comprehensive, technically proficient drawings that represent the salient aspects of historic structures and sites. Procedures and techniques for analyzing historic buildings to determine original appearance and the nature, extent, and chronology of physical change which has occurred over their history are introduced.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Prerequisites: ARCH 102 or INTD 102 or LARC 102 [Min Grade: D]

Schedule Type: Lab, Lecture, Lecture/Lab

ARST 341: American Architecture

What makes the built environment in America unique? How has American design changed over the generations? What were architects, clients, and critics thinking? Where will American architecture go in the future? Using history, sociology, and the humanities, we will address these types of questions as we examine American architecture according to themes such as the iconic American home, public buildings, buildings for work and play, and American architectural practice.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Prerequisites:** AHST 206 or LARC 206 [Min Grade: D]**Schedule Type:** Lecture**ARST 403: Rest & Rehab of Modernist Bldgs**

Preservation of modern and mid-century modern buildings and sites is the next frontier within the profession as the significance of this architectural period is recognized and materials with which they were built reach the end of their serviceable lives. Working in track-based teams, students collaborate to determine historical significance and identify character-defining features of a building in the Philadelphia region, assess its condition, and prepare design solutions for adaptive reuse while preserving historic character.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Prerequisites:** AHST 305 [Min Grade: D]**Schedule Type:** Lecture/Lab**ARST 404: Conserv Historic Build Interiors**

Complementing the Building Conservation course this course provides a comprehensive overview of interior materials used in historic building interiors and the ongoing processes of their material deterioration, contemporary approaches to their treatment, and sustainability concepts of embodied energy and life cycle analysis as these pertain to building conservation. Through site visits, demonstrations, laboratory exercises, guided research, and discussions the course explores investigative techniques specific to historic interiors; diagnosis of existing conditions, including non-destructive and laboratory testing methods; and design of appropriate interventions to remedy observed problems. Students will collect, present, critically review findings and formulate recommendations for conservation and treatment of historic interior materials.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Lecture/Lab**ARST 409: The Great American City****Credits:** 3**College:** Jefferson Coll of Architecture & Built Environment**Prerequisites:** AHST 206 or LARC 411 [Min Grade: D]**Schedule Type:** Lecture**ARST 410: Vernacular Architecture**

This elective course provides the groundwork for the study of architecture built without architects or in some other way, unlike the buildings that comprise the standard architectural canon. Scholars estimate that 95 percent of buildings fall into this category. Depending on faculty expertise, focus will be on national and regional traditions, non-Western traditions or a combination of the two. Examples of vernacular architecture will be examined in the context of their materials, building technology, climate and culture.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Prerequisites:** AHST 206 or LARC 206 [Min Grade: D]**Schedule Type:** Lecture**ARST 412: Adaptive Reuse & Urban Regener**

The greenest building is the one already built! Working with a site and community-based client in the Philadelphia area, students engage in the process of adaptive reuse of historic buildings and the philosophical motives behind reuse, including the tenets of sustainable design and urban regeneration. Through the interplay of history, historical significance, and the constraints of a program for reuse, students develop solutions for buildings to serve a new purpose while still relaying their unique character. Students research a structure, provide a written statement of the philosophical approach to reuse, develop a concept for adaptive reuse and create a final spatial solution.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Prerequisites:** LARC 300 or ARCH 214 or INTD 202 [Min Grade: D]**Schedule Type:** On-Line, Studio**ARST 422: Issues in Contemporary Arch**

Through discussion and field trips, this seminar investigates selected topics that have dominated architectural thinking during the 20th and 21st centuries. The course focuses upon major issues that continue to influence both the meaning and practice of contemporary architecture, such as: the relationship of architecture to the region and culture-at-large; the impact of technology and the digital realms; patterns of settlement and the city; the spatial and sensory experience of a building; sustainable design; and the role of adaptive reuse and historic preservation, to name a few. Students will critique contemporary theory and practice to develop their own architecture and design theory.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Prerequisites:** AHST 305 [Min Grade: D]**Schedule Type:** Lecture**ARST 425: Meaning in Arch Ornamentation**

This elective course raises some theoretical questions that are relevant to contemporary practice. What is ornament? How and why have attitudes toward architectural ornamentation changed through history? Is ornament essential to architecture? Lectures will be presented following a reconstructed chronology of theoretical topics; from the things (res materialis) of which architecture consists; to the 'rules' and 'abuses' of classical ornament; to the role of imitation; to the effects of the Industrial and Post-industrial Revolutions on theories of ornament. The relationship between the forms and the materials of ornament will be examined in lecture and group discussions.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Prerequisites:** AHST 206 or LARC 411 [Min Grade: D]**Schedule Type:** Lecture

ARST 428: Restoration/Rehab Interiors

This is an elective lecture/lab course in which students work with period and historic spaces. The course introduces students to theories and techniques of adaptation and preservation of period spaces, preserving their historical integrity. The course will deal with applicable building codes, National Park Service standards of rehabilitation, designing within ADA guidelines and use of appropriate materials and lighting.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Prerequisites: AHST 305 or LARC 307 [Min Grade: D]

Schedule Type: Lecture, Studio

ARST 434: Water and Architecture

The rich architecture of public water in urban and rural contexts is a key to the cultural landscape. From the gravity systems of a Roman city, through the rich world of medieval water, and concluding with water powered by outside energy, we will study Western, Arab and Asian water systems. Through architecture, the course will link the technology of water cycles, purity, collection and storage with the aesthetics and rituals of culture

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Prerequisites: (GDIV 200 or GDIV 201 or GDIV 202 or GDIV 203 or GDIV 204 or GDIV 205 or GDIV 208 or GDIV 210 or GDIV 220 or GDIV 221 or GDIV 223 or GDIV 225 or GDIV 226 or GDIV 227 or GDIV 229 or GDIV 231 or GDIV 233 or GDIV 234 or GDIV 235 or GDIV 236 or GDIV 298) or (GCIT 200 or GCIT 208 or GCIT 210 or GCIT 211 or GCIT 212 or GCIT 214 or GCIT 215 or GCIT 216 or GCIT 217 or GCIT 225 or GCIT 298 or GCIT 398) [Min Grade: D]

Schedule Type: Lecture

ARST 471: Design Theory: Special Topics

This upper-level course is organized to take advantage of faculty members' expertise and the interests of the student body. All topics chosen require that students have completed basic courses in architectural history and theory, so that this course can focus on (1) an advanced analysis of theoretical texts in architecture, literary texts and buildings; and (2) an examination of architecture as a cultural discipline that seeks to accommodate contemporary human needs and natural situations.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Prerequisites: AHST 306 or LARC 411 [Min Grade: D]

Schedule Type: Lecture

ARST 499: Arch Studies Capstone Project

The Architectural Studies Capstone Project provides an opportunity for students to engage in high-level inquiry, focusing upon an area of specialization within the student's track—Historic Preservation, Real Estate Development, UX Gaming Environment—or from a synthesis of the student's two declared minors. Capstone projects are research and practice-centered and draw upon areas of interest to the student. Prerequisite: Senior status and permission of program director

Credits: 4

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: Lecture

Architecture Design (ARDS)

ARDS 102: Design 2: Interd Found Studies

This foundation design studio is a synthesis of fundamental design principles, an introduction to programmatic research, and an in-depth study of design process, methodologies and craft. Additional focus is placed on the analysis of human interactions and real-world sites in relation to spatial organizations, and environmental qualities. Prerequisite ARFD-101 Design 1: Interdisciplinary Foundation Studies (Minimum Grade C)

Credits: 4

College: Jefferson Coll of Architecture & Built Environment

Prerequisites: ARFD 101 [Min Grade: C]

Corequisites: ARDS 108

Schedule Type: Studio

ARDS 106: Topics in Built Environment 2

Building on ARFD-104 Topics in the Built Environment 1, this course introduces students to central themes in the 21st century design practices. Through short talks, exposure to varied multimedia references (film, podcast, etc.), and group discussions, students explore key themes relevant to the built environment including: experience, culture, technology, preservation, sustainability, community, and more.

Credits: 1

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: On-Line

ARDS 108: Visualization 2

This course focuses on the continued development of drawing and modeling skills as a means for analysis, design development, and communication. Students learn intermediate to advanced techniques of representation and making, further their experience with industry standard software packages and fabrication techniques, and explore ways to move from one tool or medium to another in agile and effective ways. Prerequisite ARFD-103 Visualization 1 (Minimum Grade C)

Credits: 2

College: Jefferson Coll of Architecture & Built Environment

Prerequisites: ARFD 103 [Min Grade: C]

Corequisites: ARDS 102

Schedule Type: Studio

ARDS 199: Topics in the Built Environment

Credits: 1

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: Lecture

ARDS 208: Visual 3: Digital Mod for Arch

The primary intent of this course is to establish the computer as an effective tool in the design and presentation process. The course will focus on two primary areas in this regard: visualizing design concepts in three dimensions and communicating those concepts in a manner consistent with studio level work. Methods include digital model construction, creating and applying surface materials, lighting, rendering, and post-processing.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Prerequisites: ARCH 102 or LARC 102 or INTD 102 [Min Grade: C]

Schedule Type: Lab, Lecture, Lecture/Lab, Lecture/Studio Combination, On-Line

ARDS 210: Tech 1: Materials and Methods

This course focuses on the presentation of the technical factors of construction that affect a building's structure. Students are introduced to and compare the nature and structural characteristics of the major construction systems of wood, masonry, steel and concrete. Structural principles, as well as building and zoning codes, are introduced and their influence on form and choice of materials is emphasized.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Prerequisites:** ARCH 102 or INTD 102 or AREN 200 [Min Grade: C]**Schedule Type:** Lab, Lecture, Lecture/Lab**ARDS 212: Color: Theory and Practice**

This course focuses on the presentation of the technical factors of construction that affect a building's structure. Students are introduced to and compare the nature and structural characteristics of the major construction systems of wood, masonry, steel and concrete. Structural principles, as well as building and zoning codes, are introduced and their influence on form and choice of materials is emphasized.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Prerequisites:** DSGF 203 or (ARFD 102 or INTD 102) [Min Grade: D]**Schedule Type:** Lecture, Studio**ARDS 214: Model Building**

This elective course focuses on the visualization of ideas in three dimensions. Fundamentals of model building are studied from a perspective that stresses the relationship between the design process and the application of current model-building techniques. Assignments emphasize the development of skills necessary to construct models and the ability to budget for time and materials. Mock-ups, quick sketch models and final presentation models are stressed.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Prerequisites:** ARFD 101 [Min Grade: C]**Schedule Type:** Lecture, Studio**ARDS 300: ST: Study Tour Course**

This course provides an opportunity to explore unique topics in architecture not developed in other required or elective courses through study tours. Students may take this course more than once as the topics differ each time it is offered. Course may run alongside, and in conjunction with, another course such as a design studio or independent study. Courses will be scheduled with course name and section number to distinguish it from other special topics courses. Multiple ARDS 300/ 600 courses may be scheduled concurrently. The course may be administratively controlled by the TJU Study Away Office in association with international or domestic associated travel and TJU policies and procedures. The Study Away office, in such cases, will require application and approval for students to take the course.

Credits: 0.5-6**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Lecture, Study Abroad**ARDS 381: Ind Study in Arch, Intd & Land**

For further details, see general description of Independent Study in ""University Academic Policies and Procedures: Common Academic Policies for All Students"" section. Permission required. See appropriate form online at the University Registrar's webpage www.philau.edu/registrar/ for more information.

Credits: 3-6**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** By Appointment - 1 student, Independent Study

Architecture Foundations (ARFD)

ARFD 101: Design 1

This basic foundation course is required in the Architecture, Interior Design and Landscape Architecture curricula. It is an introduction to fundamental design principles and vocabulary, process methodologies and problem-solving strategies. Lectures and demonstrations will stress abstraction as a primary building block for future design studios.

Credits: 4**College:** Jefferson Coll of Architecture & Built Environment**Corequisites:** ARFD 103**Schedule Type:** By Appointment - 1 student, Studio**ARFD 103: Visualization 1**

This course introduces basic drawing to develop an understanding of form as applied to two- and three- dimensional space. The student works from nature, still life, the human figure, and the built environment in a variety of media; exploring qualities of line, texture, light and space representation. Students begin to explore subjects and visualization methodologies applicable to ideation for design majors.

Credits: 2**College:** Jefferson Coll of Architecture & Built Environment**Corequisites:** ARFD 101**Schedule Type:** By Appointment, Lecture, Lecture/Lab, Lecture/Studio Combination, Studio**ARFD 104: Topics in the Built Environment**

This course introduces students to central themes in the practices of landscape architects, interior designers, and architects in the 21st century. Through short talks, exposure to varied multimedia references (film, podcast, etc.), and group discussions, students will familiarize themselves with key themes relevant to the built environment including sustainability, equity, health, culture, technology, ethics, empathy, preservation, and more. Graded Credit/No Credit.

Credits: 1**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** By Appointment, Lecture, On-Line**ARFD 110: Painting From Perception**

Building on the foundation of the introductory drawing course, this elective course allows students to work from perception as they learn painting skills using acrylic and other water-based media. The course explores issues of composition with color and develops the student's sensibility toward the use of color. Subject matter includes still life, portraiture, figure, interiors and landscape.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Prerequisites:** DRAW 101 and (ARFD 101 or DSGF 103) [Min Grade: D]**Schedule Type:** Lecture, Studio

ARFD 112: Technics of Communication

The designed object is tangible, but it is always first an image. The image, the product of visualization, is most fundamentally communicated through the techniques of twodimensional modeling we call drawing. Today's designer is privileged to own a vast range of technologies, ancient and modern, to devise comprehensive strategies for visualizing and communicating ideas. By integrating techniques the student will learn the appropriate tool to employ at any given point in the design process to effectively communicate to self and to others.

Credits: 3
College: Jefferson Coll of Architecture & Built Environment
Prerequisites: ARFD 101 and (ARFD 103 or DRAW 101) [Min Grade: D]
Schedule Type: Lab, Lecture

ARFD 120: Design Ldrsp: Leader as Pract

Credits: 3
College: Jefferson Coll of Architecture & Built Environment
Schedule Type: Lecture

ARFD 150: History Takes Form

This elective course examines the effect of environmental, societal and cultural issues on the evolution of form in architecture and design. Students will be engaged in an active, exploratory process, using research and site visits as a means to inform contemporary design decisions. Specific historical periods will be studied on site and the corresponding design movements prior to and following these periods will be compared and contrasted.

Credits: 3
College: Jefferson Coll of Architecture & Built Environment
Schedule Type: Lecture

Area Studies (ASTU)

ASTU 198: Transfer Area Studies

Credits: 3
College: Jefferson College of Humanities & Sciences
Schedule Type: Lecture

ASTU 199: Transfer Area Studies II

Credits: 3
College: Jefferson College of Humanities & Sciences
Schedule Type: Lecture

ASTU 201: Contemporary Europe

Credits: 3
College: Jefferson College of Humanities & Sciences
Schedule Type: Lecture

ASTU 201S: Contemp Europe (Study Abroad)

Credits: 3
College: Jefferson College of Humanities & Sciences
Schedule Type: Lecture

ASTU 202: Latin America

Credits: 3
College: Jefferson College of Humanities & Sciences
Schedule Type: Lecture

ASTU 205: East Asia

Credits: 3
College: Jefferson College of Humanities & Sciences
Prerequisites: WRIT 101 and (HIST 112 or HIST 113 or HIST 198 or HIST 199) [Min Grade: D]
Schedule Type: Lecture

ASTU 208: Africa

Credits: 3
College: Jefferson College of Humanities & Sciences
Schedule Type: Lecture

ASTU 210: Middle East

Credits: 3
College: Jefferson College of Humanities & Sciences
Schedule Type: Lecture

ASTU 220: Great Britain

Credits: 3
College: Jefferson College of Humanities & Sciences
Schedule Type: Lecture

ASTU 226: Italy: Study Abroad Prep

Credits: 3
College: Jefferson College of Humanities & Sciences
Schedule Type: Lecture

ASTU 227: India and South Asia

Credits: 3
College: Jefferson College of Humanities & Sciences
Schedule Type: Lecture

ASTU 383: Independ Study in Area Studies

Credits: 3
College: Jefferson College of Humanities & Sciences
Schedule Type: Independent Study

Art & Science of Healthcare (ASH)

ASH 100: Art and Science of Healthcare

Credits: 0.5-3
College: Jefferson College of Life Sciences
Schedule Type: Lecture, Practicum, Seminar

Art (ART)

ART 101: Art Appreciation

Credits: 3
College: Jefferson College of Humanities & Sciences
Schedule Type: Independent Study, Lecture

Art History (ARTH)

ARTH 101: History of Art I

The evolution of painting, sculpture and architecture from pre-history to the 16th century is covered. A thorough foundation in art and ideas with special emphasis on styles is presented as inspiration for designers.

Credits: 3
College: School of Design & Engineering
Schedule Type: Lecture

ARTH 102: History of Western Art II

The evolution of painting, sculpture and architecture from the 16th century to the present is covered with the same emphasis on styles.

Credits: 3
College: School of Design & Engineering
Schedule Type: Lecture, On-Line

ARTH 103: A Survey of the History of Art

A broad survey of art, from pre-history to contemporary work, will be covered. A thorough foundation, giving context to the interrelationships of various movements across time with a more global perspective, with special emphasis on styles is presented as inspiration for designers. This course carries a mutual exclusion with the following courses; you may not enroll in it if you have completed any of the following with a passing grade: ARTH 101, ARTH 102 3.000 Credit hours

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture**ARTH 314: History of Textiles & Costumes**

A multi-faceted survey of textiles and costumes from ancient cultures to the present, technical- and visual-design aspects of the textile arts, the influence of trade on design trends, styles in period costume and the sociological implications of dress are all incorporated. [Writing Intensive]

Credits: 3**College:** School of Design & Engineering**Prerequisites:** FASD 252 or DSGN 423 or VDES 101 [Min Grade: D]**Schedule Type:** Lecture**ARTH 315: The History & Art of Color**

This course will review the basic concepts of color science, theory and language. Exploration of nine different categories of color will include the color's history, anthropology, symbolism and psychology; how the color is made using various media; and how the color is used across a spectrum of applications. Industry specific content includes color standardization and sustainability; analysis and understanding of color forecasting and trend; application and consumption of color by market; and palette and colorway development.

Credits: 3**College:** School of Design & Engineering

Prerequisites: GDIV 200 or GDIV 221 or GDIV 229 or GDIV 231 or GDIV 198 or GDIV 233 or GDIV 235 or GDIV 333 or FREN 101 or FREN 201 or FREN 301 or FREN 401 or GER 101 or GER 201 or ITAL 101 or ITAL 201 or ITAL 301 or ITAL 401 or JAPN 101 or JAPN 201 or JAPN 301 or JAPN 401 or SPAN 101 or SPAN 201 or SPAN 301 or SPAN 401 or SPAN 202 or SPAN 302 [Min Grade: D]

Schedule Type: Lecture**ARTH 398: Art History Transfer Elective****Credits:** 3**College:** School of Design & Engineering**Schedule Type:** Lecture

Arts & Culture (ARCU)

ARCU 101: Integrative Design Process

Design thinking is a shared process and key component of innovation for all fields within the College of Design, Engineering and Commerce. In this course, students will develop and refine abilities to construct, analyze and use the process of designing within an interdisciplinary, team based environment. Integrative Design Process is a part of the DEC core and is a mandatory course for all students in the College of Design, Engineering and Commerce. This course also fulfills the Arts and Cultures requirement of the College Studies Program for students enrolled in the majors in the School of Business Administration and for students enrolled in majors in the College of Science, Health, and the Liberal Arts.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture, Lecture/Studio Combination, Studio**ARCU 105: Music****Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**ARCU 120: The Performing Arts****Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**ARCU 123: Ideas and Images****Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture

Arts (Online) (ARTX)

ARTX 101: Art History I**Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** On-Line**ARTX 102: Art History II****Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** On-Line

Athletic Admin Certificate (CAAC)

Basic Textiles (CBST)

Behavior Health (Online) (BHTX)

BHTX 341: Behavioral Health & Neurorehab**Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** On-Line**BHTX 499: Applied Project in Neurorehab****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** By Appointment - 1 student, By Appointment - 3 students, On-Line

Behavioral Health (BHLT)

BHLT 290: Clinical Inter/Behavioral Hlth

This course builds on communication and clinical skills learned throughout other coursework and provides the student with a framework for the development of critical thinking skills and patient centered care perspectives within a variety of healthcare settings. Clinical reasoning skills such as patient triage, hierarchy of needs, short term and long term goal setting, and advanced assessment will be covered.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** By Appointment - 1 student, Lecture, On-Line

BHLT 341: Behavioral Health & Neurorehab

Focusing on the needs of clients and patients in specific environments, this course integrates behavioral and health sciences in the description of a range of interventions. Students will study specialized services used in the delivery of neuropsychology, rehabilitation nursing, occupational therapy and a variety of other fields.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: By Appointment - 3 students, Lecture, On-Line

BHLT 499: Applied Project in Neurorehab

Using the principles learned in CPS Core coursework, and/or applied psychology, neurorehabilitation, or behavioral health, this course requires students to design and develop a program directed toward addressing the health needs of an individual client/patient or group of individuals. Students are encouraged to apply their project to the future work environment where they plan to apply their expertise. Portfoliobased assessment allows students to demonstrate proficiency through display of artifacts related to their plan along with the presentation of documents that either assess the design of the project or describe project implementation.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: By Appointment - 2 students, By Appointment - 3 students, Lecture, Online By Appointment 8 Week, On-Line

Behavioral Health Services (BHS)

BHS 351: Behavioral Hlth Pol&Services

This course covers the various behavioral health services and programs for adults, children, and youth, and the roles that practitioners perform. Promotion, prevention, treatment and rehabilitation services to the mentally ill, developmentally disabled, learning disabled, and substance abuse populations will be surveyed. The historical context of services and how the mentally ill have been historically stigmatized and conceptualized will be reviewed, so that students will be able to develop critical thinking about mental health services. Contemporary policy issues, legislation, ethical issues, controversies, social movements, and trends affecting services to those with mental illness and mental disorders will be discussed.

Credits: 3

College: Jefferson College of Health Professions

Prerequisites: (PSYC 100 or PSYX 100 or PSYC 101 or PSYC 101AC) and (PSYC 251 or PSYX 251 or PSYC 201AC) [Min Grade: D]

Schedule Type: By Appointment - 1 student, By Appointment - 2 students, Lecture, On-Line

BHS 353: Human Services Administration

Provides an overview of the human service agency from management and leadership perspectives. Management topics include exploring opportunities for career advancement in human services, transitioning from service provider to manager, exploring theories of organization, strategic planning, assessing community needs, marketing, writing grant proposals, developing human resources, managing finances, designing and using information systems, and evaluating human service programs. Leadership topics include leadership theories, leading and changing human service organizations, and the learning organization.

Credits: 3

College: Jefferson College of Health Professions

Prerequisites: (PSYC 100 or PSYC 101 or PSYX 100) and (PSYC 253 or PSYX 253) and (BHS 351 or BHSX 351) [Min Grade: D]

Schedule Type: By Appointment - 1 student, Lecture, On-Line

BHS 361: Applic of Beh Hlth Research

This course introduces research design, data acquisition, and data analysis, and covers quantitative and qualitative research methods. Focuses on developing students' skills in interpreting research studies in a critical manner to inform evidence-based practice and to begin original research.

Credits: 3

College: Jefferson College of Health Professions

Prerequisites: (PSYC 100 or PSYC 101 or PSYX 100) and (PSYC 251 or PSYX 251) and (PSYC 253 or PSYX 253) and (PSYC 254 or PSYX 254) and (PSYC 262 or PSYX 262) and (PSYC 263 or PSYX 263) and (BHS 351 or BHSX 351) and (BHS 353 or BHSX 353) and (STAT 211 or STAX 211) [Min Grade: D]

Schedule Type: By Appointment - 1 student, Lecture, On-Line

BHS 498: Behavioral Hlth Svcs Capstone

This course serves as a capstone course in the Behavioral and Health Services program. Students complete the SCPS Portfolio they have been assembling throughout their program. The portfolio provides students with an opportunity to look at the past, present, and future. Students reflect on personal growth and development during their program of study. Students apply the knowledge and skills acquired in their courses to a specific problem or issue. The portfolio concludes with a professional development plan wherein students identify goals for continued professional growth and lifelong learning.

Credits: 3

College: Jefferson College of Health Professions

Prerequisites: (CLC 310 or CLCX 310) and (CLC 320 or CLCX 320) and (CLC 330 or CLCX 330) and (CLC 340 or CLCX 340) and (CLC 350 or CLCX 350) and (BHS 361 or BHSX 361) [Min Grade: D]

Schedule Type: By Appointment - 1 student, Lecture, On-Line

Behavioral Health Services ONL (BHSX)

BHSX 351: Behavioral Hlth Pol&Services

This course covers the various behavioral health services and programs for adults, children, and youth, and the roles that practitioners perform. Promotion, prevention, treatment and rehabilitation services to the mentally ill, developmentally disabled, learning disabled, and substance abuse populations will be surveyed. The historical context of services and how the mentally ill have been historically stigmatized and conceptualized will be reviewed, so that students will be able to develop critical thinking about mental health services. Contemporary policy issues, legislation, ethical issues, controversies, social movements, and trends affecting services to those with mental illness and mental disorders will be discussed.

Credits: 3

College: Jefferson College of Health Professions

Prerequisites: (PSYC 100 or PSYC 101 or PSYC 101 or PSYC 100) and (PSYC 251 or PSYC 251) [Min Grade: D]

Schedule Type: By Appointment - 1 student, By Appointment - 2 students, By Appointment - 3 students, On-Line

BHSX 353: Human Services Administration

Provides an overview of the human service agency from management and leadership perspectives. Management topics include exploring opportunities for career advancement in human services, transitioning from service provider to manager, exploring theories of organization, strategic planning, assessing community needs, marketing, writing grant proposals, developing human resources, managing finances, designing and using information systems, and evaluating human service programs. Leadership topics include leadership theories, leading and changing human service organizations, and the learning organization.

Credits: 3

College: Jefferson College of Health Professions

Prerequisites: (PSYC 100 or PSYC 101 or PSYC 101 or PSYC 100) and (PSYC 253 or PSYC 253) and (BHS 351 or BHSX 351) [Min Grade: D]

Schedule Type: By Appointment - 1 student, Lecture, On-Line

BHSX 361: Applic of Beh Hlth Research

This course introduces research design, data acquisition, and data analysis, and covers quantitative and qualitative research methods. Focuses on developing students' skills in interpreting research studies in a critical manner to inform evidence-based practice and to begin original research.

Credits: 3

College: Jefferson College of Health Professions

Prerequisites: (PSYC 100 or PSYC 101 or PSYC 101 or PSYC 100) and (PSYC 251 or PSYC 251) and (PSYC 253 or PSYC 253) and (PSYC 254 or PSYC 254) and (PSYC 262 or PSYC 262) and (PSYC 263 or PSYC 263) and (BHS 351 or BHSX 351) and (BHS 353 or BHSX 353) and (STAT 211 or STAT 211) [Min Grade: D]

Schedule Type: By Appointment - 1 student, On-Line

BHSX 498: Behavioral Hlth Srvcs Capstone

This course serves as a capstone course in the Behavioral and Health Services program. Students complete the SCPS Portfolio they have been assembling throughout their program. The portfolio provides students with an opportunity to look at the past, present, and future. Students reflect on personal growth and development during their program of study. Students apply the knowledge and skills acquired in their courses to a specific problem or issue. The portfolio concludes with a professional development plan wherein students identify goals for continued professional growth and lifelong learning.

Credits: 3

College: Jefferson College of Health Professions

Prerequisites: (CLC 310 or CLCX 310) and (CLC 320 or CLC 360 or CLCX 360 or CLCX 320) and (CLC 330 or CLCX 330) and (CLC 340 or CLCX 340) and (CLC 350 or CLCX 350) and (BHS 361 or BHSX 361) [Min Grade: D]

Schedule Type: By Appointment - 1 student, By Appointment - 2 students, On-Line

Biology (BIOL)

BIOL 2XX: Biology Designated Elective

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lecture

BIOL 3X1: Writing Intensive Elective

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lecture

BIOL 3XX: Designated Elective

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lecture

BIOL 101: Current Topics in Biology

(for non-science majors) Explore contemporary biological topics that you hear and read about or that are part of your daily life and learn the fundamental scientific concepts that underlie them. Topics will cover molecules to cells and organisms to populations as well as inheritance, development, infectious disease and what constitutes well-supported science. The course utilizes projects, hands-on activities, online discussions and group work to illustrate concepts.

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lecture, Lecture/Lab

BIOL 101AC: Current Topics in Biology

(for non-science majors) Explore contemporary biological topics that you hear and read about or that are part of your daily life and learn the fundamental scientific concepts that underlie them. Topics will cover molecules to cells and organisms to populations as well as inheritance, development, infectious disease and what constitutes well-supported science. The course utilizes projects, hands-on activities, online discussions and group work to illustrate concepts.

Credits: 3

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Lab, Lecture, On-Line

BIOL 102: Introduction to Botany

This course will review botanical topics including ecology and diversity, form, growth and reproduction, selective breeding and genetic modification and other newsworthy botanical topics that arise during the semester. These topics provide a foundation for those interested in agriculture and horticulture, plants in nutrition and pharmaceuticals, and alternative energy production. Class time will be a combination of lectures, discussions, hands-on activities, laboratory exercises, and field work. Pre-requisites: none Co-requisites: none

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lab, Lecture, Lecture/Lab

BIOL 103: Biology I

(required for Science majors) The objective of this course is to gain an understanding of the cellular, molecular and genetic basis of life. Students will be introduced to the physical and chemical principles involved in biological processes, the microscopic world of the cell, regulation of gene expression and the laws that govern inheritance. This course and BIOL-104 and BIOL-104L Biology II are the introductory courses for science majors.

Credits: 3

College: Jefferson College of Life Sciences

Corequisites: BIOL 103L

Schedule Type: Lab, Lecture, On-Line

BIOL 103L: Biology I Lab

This laboratory course reinforces the understanding of cellular, molecular and genetic processes learned in Biology I lecture. Exercises include microscopic examination of cells and tissues, biochemical analysis of enzyme activity, osmosis, cellular respiration and genetic investigation, including electrophoretic analysis of mutation.

Credits: 1

College: Jefferson College of Life Sciences

Corequisites: BIOL 103

Schedule Type: Lab, On-Line

BIOL 104: Biology II

(for science majors) In this course students will apply the principles learned in Biology I to the structure and function of organisms. Physiological processes that will be examined include nutrition, gas exchange, transport and regulation of body fluids, chemical and nervous control, and reproduction.

Credits: 3

College: Jefferson College of Life Sciences

Prerequisites: (BIOL 103 and BIOL 103L) or (BIOL 112 and BIOL 112L) [Min Grade: C-]

Corequisites: BIOL 104L

Schedule Type: Lecture, On-Line

BIOL 104L: Biology II Lab

(for science majors) In this course students will apply the principles learned in Biology I to the structure and function of organisms. Physiological processes that will be examined include nutrition, gas exchange, transport and regulation of body fluids, chemical and nervous control, and reproduction.

Credits: 1

College: Jefferson College of Life Sciences

Prerequisites: (BIOL 103 and BIOL 103L) or (BIOL 112 and BIOL 112L) [Min Grade: C-]

Corequisites: BIOL 104

Schedule Type: Lab, On-Line

BIOL 105: Environmental Issues

In this course, students will explore the ecological, chemical, social, economic and political implications of critical global environmental issues including water pollution, pesticides, energy, acid rain, global warming, waste management, biodiversity loss and population growth. Alternative solutions proposed to address these experimental issues will be explored from multiple perspectives

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lecture

BIOL 107: Science, Art, and Society

This course will explore the interconnections of science with the arts across various subfields of the Biological Sciences, including contemporary and historical examples. The course's scientific subject matter will be organized around the theme of "Patterns and Trends". The course will begin by describing the general process of how patterns and trends are identified and described in science and move on to specific examples from a variety of biological fields including climate science, plant and animal development, neurobiology, and genetics. Each scientific example will be placed in a social context that emphasizes how society uses that scientific knowledge for the purpose of interpreting the world around them and for predicting the future. Finally, we will explore how the citizen science and SciArt communities integrate scientific knowledge with artistic and social endeavors. The course will culminate with a student created SciArt project and exhibition.

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lecture

BIOL 110: Human Anatomy & Physiology I

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lab, Lecture, On-Line

BIOL 111: Human Anatomy & Physiology II

Credits: 3

College: Jefferson College of Health Professions

Prerequisites: BIOL 110 [Min Grade: D]

Schedule Type: Lab, Lecture, On-Line

BIOL 112: Core Concepts of Biology

Students in this course will gain a working knowledge of the core concepts of biology necessary for further studies in biology and the health sciences. These concepts include the relationship of structure and function across scales of biological organization, the flow of energy and information through biological systems, and an introduction to animal physiology in a systems context. This course is the introductory course for students in the health sciences and is a prerequisite for BIOL 201 and 202.

Credits: 3

College: Jefferson College of Life Sciences

Corequisites: BIOL 112L

Schedule Type: Lecture, On-Line

BIOL 112L: Core Concepts of Biol Lab

This laboratory course reinforces the understanding of cellular, molecular and genetic processes learned in Biology 112 lecture. Exercises include microscopic examination of cells and tissues, biochemical analysis of enzyme activity, osmosis, cellular respiration and genetic investigation, including electrophoretic analysis of mutation.

Credits: 1**College:** Jefferson College of Life Sciences**Corequisites:** BIOL 112**Schedule Type:** Lab, On-Line**BIOL 113: Human Anatomy & Physio I Lab****Credits:** 1**College:** Jefferson College of Health Professions**Prerequisites:** BIOX 110 [Min Grade: D]**Schedule Type:** Lab, On-Line**BIOL 114: Human Anatomy & Physio II Lab****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Lab, On-Line**BIOL 120: Concepts in Biology**

This survey course assists students in understanding the basic and unifying principles of life. Students focus on a wide variety of topics including structure and function, organization, diversity, biochemistry, evolution, behavior, ecology, and population dynamics.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, On-Line**BIOL 121: Biology I**

(required for Science majors) The objective of this course is to gain an understanding of the cellular, molecular and genetic basis of life. Students will be introduced to the physical and chemical principles involved in biological processes, the microscopic world of the cell, regulation of gene expression and the laws that govern inheritance. This course and BIOL-104 and BIOL-104L Biology II are the introductory courses for science majors.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, On-Line**BIOL 122: Biology I Lab**

This laboratory course reinforces the understanding of cellular, molecular and genetic processes learned in Biology I lecture. Exercises include microscopic examination of cells and tissues, biochemical analysis of enzyme activity, osmosis, cellular respiration and genetic investigation, including electrophoretic analysis of mutation.

Credits: 1**College:** Jefferson College of Health Professions**Schedule Type:** Lab, On-Line**BIOL 123: Biology II****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, On-Line**BIOL 124: Biology II Lab****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Lab, On-Line**BIOL 201: Human Anatomy and Physiology I**

This course is the first of a two-semester sequence. This course will examine anatomical and physiological aspects of the following systems of humans: tissues, integumentary, musculoskeletal and neurologic. A close correlation between lecture and laboratory topics will be maintained. During lecture, both anatomy and physiology will be discussed however greater emphasis will be placed on the physiology of each system while during the laboratory session, greater emphasis will be placed on anatomy.

Credits: 3**College:** Jefferson College of Life Sciences**Prerequisites:** (BIOL 104 and BIOL 104L) or (BIOL 112 and BIOL 112L) [Min Grade: C-]**Corequisites:** BIOL 201L**Schedule Type:** Lecture, On-Line**BIOL 201L: Human Anat & Physiology I Lab**

The A&P laboratory sessions will provide students with hands-on learning opportunities to help conceptualize content discussed in lecture. During lab, students will work on problem sets, examine and dissect organs and/or anatomical models, use microscopes, perform basic physiological experiments and examine cadaver specimens. During laboratory sessions of the first half of this two-semester course, emphasis will be placed on the anatomy of the relevant system.

Credits: 1**College:** Jefferson College of Life Sciences**Prerequisites:** (BIOL 104 and BIOL 104L) or (BIOL 112 and BIOL 112L) [Min Grade: C-]**Corequisites:** BIOL 201**Schedule Type:** Lab, On-Line**BIOL 202: Human Anatomy & Physiology II**

This course is the second of a two semester sequence. This course will examine anatomical and physiological aspects of the following systems of humans: sensory, endocrine, circulation, respiration, nutrition-digestion, excretion and reproductive. During lecture, both anatomy and physiology will be discussed. While some lab sessions will focus mainly on the anatomy of the current system, most laboratory sessions will involve physiological experiments to provide students with greater insight into the physiology of the current system. A close correlation between lecture and laboratory topics will be maintained.

Credits: 3**College:** Jefferson College of Life Sciences**Prerequisites:** BIOL 201 and BIOL 201L [Min Grade: C-]**Corequisites:** BIOL 202L**Schedule Type:** Lecture, On-Line**BIOL 202L: Human Anat & Physiology II Lab**

The A&P laboratory sessions will provide students with hands-on learning opportunities to help conceptualize content discussed in lecture. During lab, students will work on problem sets, examine and dissect organs and/or anatomical models, use microscopes, perform basic physiological experiments and examine cadaver specimens. While some lab sessions will focus mainly on the anatomy of the current system, most laboratory sessions will involve physiological experiments to provide students with greater insight into the physiology of the current system.

Credits: 1**College:** Jefferson College of Life Sciences**Prerequisites:** BIOL 201 and BIOL 201L [Min Grade: C-]**Corequisites:** BIOL 202**Schedule Type:** Lab, On-Line

BIOL 204: Cell Biology

This course focuses on both structure and function of cellular components. Cellular structure is investigated from the molecular level to macromolecular assemblies and organelles with the major emphasis on how these structures function to form a dynamic cell interacting with its environment. Cell growth, reproduction and communication are discussed. Cells studies include single cells to those organized into tissues in multicellular organisms.

Credits: 3

College: Jefferson College of Life Sciences

Prerequisites: BIOL 104 and BIOL 104L [Min Grade: C-]

Corequisites: BIOL 204L

Schedule Type: Lecture

BIOL 204L: Cell Biology Lab

Credits: 1

College: Jefferson College of Life Sciences

Prerequisites: BIOL 104 and BIOL 104L [Min Grade: C-]

Corequisites: BIOL 204

Schedule Type: Lab

BIOL 205: Plant Biology

Credits: 3

College: Jefferson College of Life Sciences

Prerequisites: BIOL 104 and BIOL 104L [Min Grade: C-]

Corequisites: BIOL 205L

Schedule Type: Lecture

BIOL 205L: Plant Biology Lab

Credits: 1

College: Jefferson College of Life Sciences

Prerequisites: BIOL 104 and BIOL 104L [Min Grade: C-]

Corequisites: BIOL 205

Schedule Type: Lab

BIOL 207: Principles of Genetics

This course will consider Mendelian genetics and the contributions of other early research on our present knowledge. Included will be crossover consequences, gene mapping, sex linkage, statistical genetics, mutation, chromosome abnormalities and human genetics.

Credits: 3

College: Jefferson College of Life Sciences

Prerequisites: (BIOL 104 and BIOL 104L) or (BIOL 112 and BIOL 112L) [Min Grade: C-]

Corequisites: BIOL 207L

Schedule Type: Lecture

BIOL 207L: Principles of Genetics Lab

This is the laboratory course which must be taken to complete the genetics requirement. The laboratory exercises use current techniques of DNA technology as applied to disease diagnosis, forensic determinations and the isolation and structural examination of the DNA molecule.

Credits: 1

College: Jefferson College of Life Sciences

Prerequisites: (BIOL 104 and BIOL 104L) or (BIOL 112 and BIOL 112L) [Min Grade: C-]

Corequisites: BIOL 207

Schedule Type: Lab

BIOL 208: Biodiversity

The purpose of this course is to explore what is known about the abundance and distribution of all species on earth, what threatens and supports these species and what efforts humans have taken both in the United States and globally to destroy and conserve biodiversity. Genetic variability, demographic and population dynamics, environmental variation, economic value and legal status will be compared for the design of captive breeding programs, protected areas management and sustainable use alternatives.

Credits: 3

College: Jefferson College of Life Sciences

Prerequisites: BIOL 104 and BIOL 104L [Min Grade: C-]

Schedule Type: Lecture

BIOL 209: Medicinal Plants

This writing-intensive course focuses on the use of plants and plant products in human health. Topics include a survey of plants and plant families with medicinal properties, their cultivation and conservation, physiological effects of plant extracts, plant-derived drugs, historical and cultural aspects of medicinal plant use.

Credits: 3

College: Jefferson College of Life Sciences

Prerequisites: (BIOL 104 Min Grade: C- and BIOL 104L Min Grade: C-) or (BIOL 112 Min Grade: C- and BIOL 112L Min Grade: C-) and (WRIT 201 Min Grade: D or WRIT 202 Min Grade: D or WRIT 211 Min Grade: D or WRIT 215 Min Grade: D or WRIT 217 Min Grade: D)

Corequisites: BIOL 209L

Schedule Type: Lab, Lecture, Lecture/Lab

BIOL 209L: Medicinal Plants Lab

Credits: 1

College: Jefferson College of Life Sciences

Corequisites: BIOL 209

Schedule Type: Lab

BIOL 221: Microbiology

This course provides an introduction to environmental, industrial, food and medical microbiology. An understanding of the methods by which microbes produce disease as well as interact with body surfaces to maintain human health is also discussed. [Writing Intensive]

Credits: 3

College: Jefferson College of Life Sciences

Prerequisites: (BIOL 104 and BIOL 104L) or BIOL 112 and BIOL 112L [Min Grade: C-]

Corequisites: BIOL 221L

Schedule Type: Hybrid, Lecture, On-Line

BIOL 221L: Microbiology Lab

Laboratories are designed to complement and expand information from lectures. Students will gain experience in classical techniques used by environmental and clinical microbiologists for determining unknown bacteria and molds. Practical studies will also compare historical and current methods for physical and chemical removal of microbes.

Credits: 1

College: Jefferson College of Life Sciences

Prerequisites: (BIOL 104 and BIOL 104L) or (BIOL 112 and BIOL 112L) [Min Grade: C-]

Corequisites: BIOL 221

Schedule Type: By Appointment - 4 students, Lab, On-Line

BIOL 256: Molecular Genetics

This lecture/lab course reviews the structure and function of the macromolecules that manifest genetic information. Topics include DNA and chromatin structure, replication, recombination, repair, RNA structure transcription, regulation of transcription and downstream processes and current investigative technologies. The lab enables students to have hands-on experience with handling and analysis of macromolecules. Students prepare lab reports and seminar presentations typical of real-world dissemination methods. Prerequisite: grade of "C-" or better in BIOL 104 and BIOL 104L

Credits: 3**College:** Jefferson College of Life Sciences**Prerequisites:** BIOL 104 and BIOL 104L [Min Grade: C-]**Corequisites:** BIOL 256L**Schedule Type:** By Appointment - 1 student, By Appointment - 2 students, By Appointment - 3 students, Lecture**BIOL 256L: Molecular Genetics Lab**

This lecture/lab course reviews the structure and function of the macromolecules that manifest genetic information. Topics include DNA and chromatin structure, replication, recombination, repair, RNA structure transcription, regulation of transcription and downstream processes and current investigative technologies. The lab enables students to have hands-on experience with handling and analysis of macromolecules. Students prepare lab reports and seminar presentations typical of real-world dissemination methods.

Credits: 1**College:** Jefferson College of Life Sciences**Prerequisites:** BIOL 104 and BIOL 104L [Min Grade: C-]**Corequisites:** BIOL 256**Schedule Type:** By Appointment - 1 student, By Appointment - 3 students, Lab**BIOL 299: Biology Transfer****Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture**BIOL 301: Ecology**

This course quantitatively measures the relationship between organisms and their environment at the population, community, landscape and global level. Critical ecological controversies will be explored. Field data for both flora and fauna will be collected, analyzed and presented following guidelines from professional scientific journals.

Credits: 3**College:** Jefferson College of Life Sciences**Prerequisites:** BIOL 104 and BIOL 104L [Min Grade: C-]**Corequisites:** BIOL 301L**Schedule Type:** Lab, Lecture, Lecture/Lab**BIOL 301L: Ecology Lab****Credits:** 1**College:** Jefferson College of Life Sciences**Prerequisites:** BIOL 104 and BIOL 104L [Min Grade: C-]**Corequisites:** BIOL 301**Schedule Type:** Hybrid, Lab**BIOL 302: Medical Genetics**

The course in medical genetics deals with the definition of the role of genetic variation and mutation in predisposing to disease, modifying the course of disease, or causing the disease itself. It will cover single gene defects caused by a critical error in the information carried by a single gene, diseases due to an excess or deficiency of the genes contained in whole chromosomes or segments of chromosomes, and multifactorial inheritance diseases which result of more than one genes which can act together to produce or predispose to a serious defect. The course will also introduce the method collection and interpretation of a family history as an integral tool in medical genetics, and integrate this in all aspects of the presentation.

Credits: 3**College:** Jefferson College of Life Sciences**Prerequisites:** BIOL 207 Min Grade: D and BIOL 207L Min Grade: C-**Schedule Type:** Lecture**BIOL 303: Histology**

Histology provides students with an integrated perspective of how adaptations in physiology, biochemistry and morphology allow cellular organization into human organs and support systems. Laboratory studies will introduce students to abnormal embryology, which is the core of many aspects of disease, especially those affecting children. As well as analysis of prepared slides, students will learn to interpret and present abnormal histology/embryology in the form of case histories.

Credits: 3**College:** Jefferson College of Life Sciences**Prerequisites:** BIOL 202 Min Grade: D and BIOL 202L Min Grade: C-**Corequisites:** BIOL 303L**Schedule Type:** Lab, Lecture, Lecture/Lab**BIOL 303L: Histology Lab****Credits:** 1**College:** Jefferson College of Life Sciences**Prerequisites:** BIOL 202 Min Grade: D and BIOL 202L Min Grade: C-**Corequisites:** BIOL 303**Schedule Type:** Lab**BIOL 305: Preventative Medicine**

This upper-level biology elective course examines the scientific, physiological, behavioral and policy dynamics associated with preventative medicine and effective outreach to different patient populations. Students will design experiments to measure their own prevention practices in a series of hands-on interactive laboratory exercises while comparing their results to national level demographic, epidemiological, historical trends and current intervention alternatives for the nation's leading health issues. Client case studies will be used to engage students in problem-solving scientifically sound interventions that examine the environmental, socio-cultural, behavioral, and biological determinants of success preventative practices.

Credits: 3**College:** Jefferson College of Life Sciences**Prerequisites:** PSYC 103 Min Grade: C or (BIOL 104 Min Grade: C- and BIOL 104L Min Grade: C-) or (BIOL 112 Min Grade: C- and BIOL 112L Min Grade: C-)**Corequisites:** BIOL 305L**Schedule Type:** Hybrid, Lab, Lecture, Lecture/Lab

BIOL 305L: Preventative Medicine Lab

This laboratory experience supports evaluation of the demographic, epidemiological and historical trends to intervention of the nation's leading health issues with hands-on measurements, analysis, synthesis and comparison to current environmental, socio-cultural, behavioral, and biological norms for whole person healthcare.

Credits: 1

College: Jefferson College of Life Sciences

Corequisites: BIOL 305

Schedule Type: Hybrid, Lab

BIOL 307: Developmental Genetics

This course is an elective for students who have completed BIOL 104/104L and required for those in the genetics minor. It will consider animal embryology from gametogenesis (of sperm and egg) to organogenesis (development of organs) and specification with emphasis placed the genes controlling these processes. The course includes cytogenesis (development of cells) and morphogenesis (genes which control change in body form) of the developing embryo.

Credits: 3

College: Jefferson College of Life Sciences

Prerequisites: BIOL 104 and BIOL 104L [Min Grade: C-]

Schedule Type: Lab, Lecture

BIOL 308: Tropic Field Studies Costa Ri

Credits: 3

College: Jefferson College of Life Sciences

Prerequisites: BIOL 104 and BIOL 104L [Min Grade: C-]

Schedule Type: Lab, Lecture, Study Abroad

BIOL 309: App in Molecular Bio/Bioinform

In this upper level biology course students will take a hands-on approach to applied molecular biology and genetics. In the first part of the semester students will learn to extract, amplify, and sequence DNA from a target organism. In the second half of the class students will apply bioinformatics techniques to characterize and analyze their sequences with the tools of bioinformatics. Along the way students will be introduced to numerous additional techniques in applied molecular biology.

Credits: 3

College: Jefferson College of Life Sciences

Prerequisites: BIOL 104 Min Grade: C- and BIOL 104L Min Grade: C- and CHEM 104 Min Grade: D and CHEM 104L Min Grade: D

Corequisites: BIOL 309L

Schedule Type: Hybrid, Lecture, On-Line

BIOL 309L: App in Molecular Bio/Bioin Lab

The laboratory component of Applications in Molecular Biology and Bioinformatics. In the laboratory component of this course students will spend time in the biology laboratory and working in the computer lab. This lab is closely integrated with the lecture activities.

Credits: 1

College: Jefferson College of Life Sciences

Prerequisites: BIOL 104 Min Grade: C- and BIOL 104L Min Grade: C- and CHEM 104 Min Grade: D and CHEM 104L Min Grade: D

Corequisites: BIOL 309

Schedule Type: Hybrid, Lab, Online Lab

BIOL 311: Applic in Molec Bio & Bioinfor

This course is an upper-level elective for Biology majors and may count towards the Genetics minor. Other students who have completed General Biology and General Chemistry may also take this course. To get the most out of this course, it is suggested that students complete Principles of Genetics (BIOL 207) or Molecular Genetics (BIOL 256).

Credits: 3

College: Jefferson College of Life Sciences

Prerequisites: BIOL 104 and BIOL 104L and CHEM 104 and CHEM 104L and BIOL 311L [Min Grade: C-]

Schedule Type: Lecture

BIOL 311L: Applic in Molec Bio & Bioinfor

The laboratory component of Applications in Molecular Biology and Bioinformatics. In the laboratory component of this course students will spend time in the biology laboratory and working in the computer lab. This lab is closely integrated with the lecture activities.

Credits: 1

College: Jefferson College of Life Sciences

Prerequisites: BIOL 104 and BIOL 104L and CHEM 104 and CHEM 104L and BIOL 311 [Min Grade: C-]

Schedule Type: Lab

BIOL 312: Biostatistics

Credits: 3

College: Jefferson College of Life Sciences

Prerequisites: MATH 111 or MATH 112 [Min Grade: C]

Schedule Type: Lecture

BIOL 315: Microbiology Lecture

(writing intensive) The objective of this course is to introduce students to the innate mechanisms by which the human body prevents infection, as well as those involved in specifically acquired immunity. Topics include the structural, functional and genetic aspects of a fully competent immune system that can successfully prevent attack by millions of microorganisms each day. Exploration of the many medical conditions which result from hyperactive- or impaired-immune responses including allergy, autoimmunity, cancer and AIDS are studied.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: By Appointment - 1 student, Lecture, On-Line

BIOL 316: Microbiology Lab

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: By Appointment - 1 student, Lab, On-Line

BIOL 317: Experimental Field Ecology

Credits: 4

College: Jefferson College of Life Sciences

Prerequisites: BIOL 301 and BIOL 301L [Min Grade: D]

Schedule Type: Lab, Lecture

BIOL 318: Urban Ecology, Restoration & Planning

Natural lands and natural systems occur in densely populated areas and because of the human impacts present vast challenges to the landscape architects and environmental planners who are entrusted with their protection and enhancement. This course studies in detail urban ecological systems, and the human impacts that shape them. The student will also be exposed to current restoration techniques, which are being utilized in the urban setting to restore natural ecological functioning to the city.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** BIOL 104 and BIOL 104L [Min Grade: C-]**Schedule Type:** Lecture**BIOL 319: Oceanography**

An introduction to the biological, chemical, geological and physical aspects of the ocean environment with particular emphasis on the importance of the oceans to human beings and the impact we have on them. Students may participate in an optional field trip highlighting estuarine/coastal biodiversity, aquacultural techniques and oceanographic sampling techniques.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** SCI 101 or SCI 102 or BIOL 101 or BIOL 103 or CHEM 101 or CHEM 103 or PHYC 101 or PHYC 201 [Min Grade: D]**Schedule Type:** By Appointment - 1 student, Lecture**BIOL 320: Intro to Biotechnology**

This course is an introduction to the field of biotechnology, one of the major technologies of the twenty-first century. Its wide-ranging, multi-disciplinary activities include recombinant DNA techniques, cloning, and the application of microbiology to the production of goods from bread to antibiotics. This course introduces both the principles and applications of Recombinant DNA technology to animals, plants and microbial organisms. Basic biotechnology, biology and bioprocessing topics will be combined to provide a complete overview of biotechnology. Students engage in ethical debate surrounding biotechnology. Students review employment and careers in the biotechnology and biopharmaceutical industries.

Credits: 4**College:** Jefferson College of Life Sciences**Prerequisites:** (CHEM 104 Min Grade: D and CHEM 104L Min Grade: D) and (BIOL 104 Min Grade: C- and BIOL 104L Min Grade: C-)**Schedule Type:** Lab, Lecture**BIOL 321: Immunology**

(writing intensive) The objective of this course is to introduce students to the innate mechanisms by which the human body prevents infection, as well as those involved in specifically acquired immunity. Topics include the structural, functional and genetic aspects of a fully competent immune system that can successfully prevent attack by millions of microorganisms each day. Exploration of the many medical conditions which result from hyperactive- or impaired-immune responses including allergy, autoimmunity, cancer and AIDS are studied.

Credits: 3**College:** Jefferson College of Life Sciences**Prerequisites:** (BIOL 104 Min Grade: C- and BIOL 104L Min Grade: C-) or (BIOL 112 Min Grade: C- and BIOL 112L Min Grade: C-) and (WRIT 201 Min Grade: D or WRIT 202 Min Grade: D or WRIT 217 Min Grade: D)**Schedule Type:** Lecture**BIOL 321L: Immunology Lab****Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** Lab**BIOL 322: Wildlife Ecology & Conservation**

This course is an international overview of current strategies used for wildlife conservation of mammals, birds, fish and other vertebrate species. Population ecology, habitat, disease, foraging and behavior will be covered in depth. Students will research the historical, legal and economic foundation for current best-management practices. Through intensive field studies, students will compare and contrast scientific-field techniques used in wildlife management.

Credits: 4**College:** Jefferson College of Life Sciences**Prerequisites:** BIOL 104 [Min Grade: C-]**Schedule Type:** Lab, Lecture, Lecture/Lab**BIOL 371: Selected Topics in Biology**

This course provides an opportunity to explore topics in biology not developed in other courses. Examples include specialized areas of organismal biology, conservation biology, developmental and molecular biology. Students may take this course more than once as the topics differ each time it is offered.

Credits: 3**College:** Jefferson College of Life Sciences**Prerequisites:** (BIOL 104 and BIOL 104L) or (BIOL 112 and BIOL 112L) [Min Grade: C-]**Schedule Type:** Hybrid, Lab, Lecture, Lecture/Lab**BIOL 371L: Selected Topics in Bio Lab****Credits:** 1**College:** Jefferson College of Life Sciences**Prerequisites:** BIOL 371**Schedule Type:** Lab**BIOL 391: Research in Biology I**

Independent research is taken under the guidance of a faculty member. The research will include a written proposal prior to initiation of the project, a literature search, experimental work, a written abstract and report upon completion of the semester and an oral presentation of the work. Guidelines for approval and for final evaluation are available in the College of Life Sciences office.

Credits: 3**College:** Jefferson College of Life Sciences**Schedule Type:** By Appointment - 1 student, By Appointment - 2 students, By Appointment - 3 students, By Appointment - 4 students, By Appointment - 5 students, Independent Study**BIOL 392: Research in Biology II**

Continuation of BIOL-391.

Credits: 3**College:** Jefferson College of Life Sciences**Prerequisites:** BIOL 391 [Min Grade: D]**Schedule Type:** By Appointment - 1 student, By Appointment - 2 students, By Appointment - 3 students, Independent Study**BIOL 398: Biology Designated Elective****Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture**BIOL 400: Kaplan MCAT Prep Course****Credits:** 0**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture, On-Line

BIOL 402: Genetics Seminar

This writing intensive course will expose the student to the fields of population genetics and several emerging and important subdisciplines (behavioral, conservation, and evolutionary genetics). Human health will be a recurring theme. The seminar format will encourage an independent learning experience. Papers and presentations will build research, communication, and critical thinking skills. [Writing Intensive]

Credits: 3

College: Jefferson College of Life Sciences

Prerequisites: (BIOL 207 and BIOL 207L) and (WRIT 211 or WRIT 215 or WRIT 201 or WRIT 202) [Min Grade: D]

Schedule Type: By Appointment - 1 student, By Appointment - 2 students, By Appointment - 3 students, By Appointment - 4 students, By Appointment, Lecture, On-Line

BIOL 404: Neuroscience and Anatomy

This course will guide the student through the working dynamics of the nervous system at chemical, cellular, and anatomic levels. The connections to disease states, behavioral health, and our clinical intervention methods will be a recurring theme. Learning assessment tools will include exams, research papers, and presentations. Models and radiological images will substitute for dissection and preserved specimens.

Credits: 3

College: Jefferson College of Life Sciences

Prerequisites: BIOL 202 and BIOL 202L [Min Grade: B-]

Schedule Type: Lecture

BIOL 405: Human Gross Anatomy

This is a gross anatomy course that will be taught using a regional approach. Five major regions of the body (back, arm, leg, thorax and abdominopelvic, and head and neck regions) will be covered each semester, with each body region being a unit in the course. Each unit will start with the bones of that particular region, then muscles, articulations, nerves, arteries and veins. For the units covering the thorax and abdomen and head and neck, organ systems will be discussed. When applicable, the anatomical basis for common conditions (herniated discs, bulging discs, carpal tunnel syndrome, sciatic etc.) will be discussed to show real world applications for the content being discussed.

Credits: 3

College: Jefferson College of Life Sciences

Prerequisites: BIOL 201 and BIOL 201L and BIOL 202 and BIOL 202L [Min Grade: B]

Corequisites: BIOL 405L

Schedule Type: Lecture

BIOL 405L: Human Gross Anatomy Lab

This laboratory course supplements the BIOL 405 lecture course with hands on learning using cadaveric remains and virtual cadavers. Bones, muscles, arteries, veins, nerves, and organ systems will be studied using a regional approach. Pre-requisites: BIOL 201 and BIOL 201L and BIOL 202 and BIOL 202L with a minimum grade of B. Co-requisite: BIOL 405.

Credits: 1

College: Jefferson College of Life Sciences

Prerequisites: (BIOL 201 and BIOL 201L) and (BIOL 202 and BIOL 202L) [Min Grade: B]

Corequisites: BIOL 405

Schedule Type: Lab

BIOL 407: Comparative Vertebrate Anatomy

A comparative study of the structure, function and evolutionary relationships of the major vertebrate groups.

Credits: 4

College: Jefferson College of Life Sciences

Prerequisites: BIOL 104 and BIOL 104L [Min Grade: C-]

Schedule Type: Lab, Lecture

BIOL 409: Cellular Analysis

This course will teach fundamental methods of contemporary cellular and biotechnology. Laboratory exercises focus on microscopic, biochemical and molecular analysis of cells and cell structures.

Credits: 4

College: Jefferson College of Life Sciences

Prerequisites: BIOL 204 and BIOL 204L [Min Grade: D]

Schedule Type: Lab, Lecture

BIOL 411: Life Science Seminar

The course covers recent advances in the biological and medical sciences by way of formal presentations and discussions involving both students and invited faculty. In addition, students will learn techniques for the preparation of a research project involving a literature search. Students will be required to carry out a research project and present a formal seminar on this work to their peers.

Credits: 3

College: Jefferson College of Life Sciences

Prerequisites: BIOL 104 and BIOL 104L [Min Grade: C-]

Schedule Type: Lecture

BIOL 413: Pathology

Pathology represents an integrated perspective of how disease results from a series of common, underlying changes resulting from initial and continued cell stresses. Students will relate disease processes to the symptoms and signs reported by patients and interpreted by physicians through the use of case history presentation and will acquire a variety of light microscopy techniques routinely used in hospitals for the diagnosis and monitoring of abnormal pathology.

Credits: 3

College: Jefferson College of Life Sciences

Prerequisites: BIOL 202 and BIOL 202L [Min Grade: D]

Corequisites: BIOL 413L

Schedule Type: Hybrid, Lab, Lecture, Lecture/Lab

BIOL 413L: Pathology Lab

Pathology represents an integrated perspective of how disease results from a series of common, underlying changes resulting from initial and continued cell stresses. Students will relate diseases processes to the symptoms and signs reported by patients and interpreted by physicians through the use of case history presentation and will acquire a variety of light microscopy techniques routinely used in hospitals for the diagnosis and monitoring of abnormal pathology.

Credits: 1

College: Jefferson College of Life Sciences

Corequisites: BIOL 413

Schedule Type: Lab

BIOL 415: Natural Resource Management

This course explores the existing state of the world's natural resources including forests, fisheries, rangeland, soil, water, wildlife, air and energy. Management options for each resource will be explored in depth. Field trips will compare cost, impact and implementation of different approaches used by environmental agencies. Students will write and present a resource-management plan for a key issue.

Credits: 3**College:** Jefferson College of Life Sciences**Prerequisites:** BIOL 301 and BIOL 301L [Min Grade: D]**Schedule Type:** Lecture**BIOL 416: Advanced Physiology****Credits:** 3**College:** Jefferson College of Life Sciences**Prerequisites:** BIOL 202 or BIOL 207 or BCHM 313 [Min Grade: C]**Corequisites:** BIOL 416L**Schedule Type:** Lecture**BIOL 416L: Advanced Physiology Lab****Credits:** 1**College:** Jefferson College of Life Sciences**Prerequisites:** BIOL 202 or BIOL 207 or BCHM 313 [Min Grade: C]**Corequisites:** BIOL 416**Schedule Type:** Lab**BIOL 417: Science Seminar****Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture**BIOL 493: Preceptorship I**

The preceptorship experience is designed to enhance the student's knowledge, technical skills and problem-solving abilities within the biomedical science realm. These studies will be performed off campus under the supervision of biomedical professionals and other practitioners in the medical sciences, previously approved by the program director. Designed to be taken as summer classes between the sophomore and junior years. A minimum of 54-hours required, preferably as six, one-week periods of nine hours per week.

Credits: 3**College:** Jefferson College of Life Sciences**Schedule Type:** Internship 3 Credits, Lecture, On-Line**BIOL 494: Preceptorship II**

The preceptorship experience is designed to enhance the student's knowledge, technical skills and problem-solving abilities within the biomedical science realm. These studies will be performed off campus under the supervision of biomedical professionals and other practitioners in the medical sciences, previously approved by the program director. Designed to be taken as summer classes between the sophomore and junior years. A minimum of 54-hours required, preferably as six, one-week periods of nine hours per week.

Credits: 3**College:** Jefferson College of Life Sciences**Schedule Type:** Internship 3 Credits, Lecture, On-Line

Biology (Online) (BIOX)

BIOX 110: Human Anatomy & Physiology I**Credits:** 3**College:** Jefferson College of Health Professions**Corequisites:** BIOX 113**Schedule Type:** On-Line**BIOX 111: Human Anatomy & Physiology II****Credits:** 3**College:** Jefferson College of Health Professions**Prerequisites:** BIOX 110 or BIOL 110 [Min Grade: D]**Corequisites:** BIOX 114**Schedule Type:** On-Line**BIOX 113: Human Anatomy & Physio I Lab****Credits:** 1**College:** Jefferson College of Health Professions**Corequisites:** BIOX 110**Schedule Type:** On-Line**BIOX 114: Human Anatomy & Physio II Lab****Credits:** 1**College:** Jefferson College of Health Professions**Prerequisites:** BIOL 110 or BIOX 110 [Min Grade: D]**Corequisites:** BIOX 111**Schedule Type:** On-Line**BIOX 120: Concepts of Biology**

This survey course assists students in understanding the basic and unifying principles of life. Students focus on a wide variety of topics including structure and function, organization, diversity, biochemistry, evolution, behavior, ecology, and population dynamics.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** On-Line**BIOX 121: Biology I****Credits:** 3**College:** Jefferson College of Health Professions**Corequisites:** BIOX 122**Schedule Type:** On-Line**BIOX 122: Biology I Lab****Credits:** 1**College:** Jefferson College of Health Professions**Corequisites:** BIOX 121**Schedule Type:** On-Line**BIOX 123: Biology II****Credits:** 3**College:** Jefferson College of Health Professions**Prerequisites:** BIOL 121 or BIOX 121 [Min Grade: D]**Corequisites:** BIOX 124**Schedule Type:** On-Line**BIOX 124: Biology II Lab****Credits:** 1**College:** Jefferson College of Health Professions**Prerequisites:** BIOX 121 or BIOL 121 [Min Grade: D]**Corequisites:** BIOX 123**Schedule Type:** On-Line

BIOX 215: Microbiology Lecture

(writing intensive) The objective of this course is to introduce students to the innate mechanisms by which the human body prevents infection, as well as those involved in specifically acquired immunity. Topics include the structural, functional and genetic aspects of a fully competent immune system that can successfully prevent attack by millions of microorganisms each day. Exploration of the many medical conditions which result from hyperactive- or impaired-immune responses including allergy, autoimmunity, cancer and AIDS are studied.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: On-Line

BIOX 216: Microbiology Lab

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: On-Line

Biology (P4) (BIO)

BIO 101: Biology I

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lab, Lecture, Lecture/Lab

BIO 102: Biology II

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lab, Lecture, Lecture/Lab, On-Line

BIO 103: Biology I Laboratory

Credits: 1

College: Jefferson College of Life Sciences

Schedule Type: Lab, On-Line

BIO 104: Biology II Laboratory

Credits: 1

College: Jefferson College of Life Sciences

Schedule Type: Lab, On-Line

BIO 201: Anatomy&Physiology I

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Clinical, Lab, Lecture, Lecture/Lab

BIO 202: Anatomy&Physiology I Lab

Credits: 1

College: Jefferson College of Life Sciences

Schedule Type: Clinical, Lab, Lecture

BIO 203: Anatomy & Physiology II

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Clinical, Lab, Lecture

BIO 204: Anatomy & Physiology II Lab

Credits: 1

College: Jefferson College of Life Sciences

Schedule Type: Clinical, Lab, Lecture

BIO 205: Basic Biostatistics

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lab, Lecture, On-Line

BIO 206: Discussions in Medical Ethics

Credits: 1

College: Jefferson College of Life Sciences

Schedule Type: Lab, Lecture, Lecture/On-Line, On-Line

BIO 301: Intro to Microbiology

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Clinical, Lab, Lecture, Lecture/Lab, On-Line, Seminar

BIO 302: Intro to Genetics

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lecture, Lecture/On-Line, Seminar

BIO 303: Intro to Microbiology Lab

Credits: 1

College: Jefferson College of Life Sciences

Schedule Type: Lab

BIO 401: Intro to Human Pathology

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Clinical, Lab, Lecture, Lecture/Lab, On-Line, Seminar

BIO 402: Adv Top in Anat & Cadav Dissec

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lecture/Lab

BIO 403: Fundamentals of Neuroscience

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lecture, Lecture/On-Line, On-Line

BIO 2016: Discussions in Medical Ethics

Credits: 1

College: Jefferson College of Life Sciences

Schedule Type: Lab, Lecture

Biology/Chemistry (BCHM)

BCHM 312: Biochemistry: Proteins

Proteins reviews fundamental protein synthesis, structure/function relationship, consequences of mutations, equilibrium binding, use of antibodies as investigative tools, catalytic mechanisms, kinetics, and regulation of enzymes. Direct application of course content to health and biotechnology are emphasized. Corequisite: BCHM 312
Prerequisite: grade of "C-" or better in BIOL 104 and BIOL 104L, and grade of "C-" or better in CHEM 202 and CHEM 202L

Credits: 3

College: Jefferson College of Life Sciences

Prerequisites: (BIOL 104 and BIOL 104L) and (CHEM 202 and CHEM 202L) [Min Grade: C-]

Corequisites: BCHM 312L

Schedule Type: Hybrid, Lecture

BCHM 312L: Biochemistry: Proteins Lab

This lab introduces some common, basic techniques used routinely the study of proteins. The techniques learned include spectrophotometric, chromatographic, electrophoretic, and enzymatic analysis. Students prepare lab reports and seminar presentations typical of real-world dissemination methods. Corequisite: BCHM 312 Prerequisite: grade of "C-" or better in BIOL 104 and BIOL 104L, and grade of "C-" or better in CHEM 202 and CHEM 202L.

Credits: 1**College:** Jefferson College of Life Sciences**Prerequisites:** (BIOL 104 and BIOL 104L) and (CHEM 202 and CHEM 202L) [Min Grade: C-]**Corequisites:** BCHM 312**Schedule Type:** Lab**BCHM 313: Biochemistry:Metabolism**

Biochemistry II: Metabolism reviews the structures and metabolic transformations of carbohydrates, lipids, amino acids, and nucleotides. The regulation of metabolism by principles of protein function reviewed in BCHM 312 is thematic throughout the course. Direct application of course content to health and biotechnology are emphasized. Corequisite: BCHM 313L Prerequisite: grade of "C-" or better in BIOL 104 and BIOL 104L, and grade of "C-" or better in CHEM 202 and CHEM 202L.

Credits: 3**College:** Jefferson College of Life Sciences**Prerequisites:** (BIOL 104 and BIOL 104L) and (CHEM 202 and CHEM 202L) [Min Grade: C-]**Corequisites:** BCHM 313L**Schedule Type:** By Appointment - 1 student, By Appointment - 2 students, Lecture**BCHM 313L: Biochemistry: Metabolism Lab**

This lab includes analysis of metabolites and the regulation of metabolism by proteins. The techniques learned include spectrophotometric, chromatographic, electrophoretic, and enzymatic analysis. Students prepare lab reports and seminar presentations typical of real-world dissemination methods. Corequisite: BCHM 313 Prerequisite: grade of "C-" or better in BIOL 104 and BIOL 104L, and grade of "C-" or better in CHEM 202 and CHEM 202L.

Credits: 1**College:** Jefferson College of Life Sciences**Prerequisites:** (BIOL 104 and BIOL 104L) and (CHEM 202 and CHEM 202L) [Min Grade: C-]**Corequisites:** BCHM 313**Schedule Type:** By Appointment - 1 student, By Appointment - 2 students, Lab

Bioprocessing (BP)

BP 401: Bas Engineering for Scientists**Credits:** 2**College:** School of Design & Engineering**Schedule Type:** Lecture**BP 402: Bas Biochem & Bio for Engineer**

This course introduces students to the underlying principles and applications of key concepts in microbiology, biochemistry, and biology to highlight the importance of cells, genes and proteins as the basis of disease and as therapeutics. The course will cover basic recombinant DNA technology as used in the production of therapeutic proteins and monoclonal antibodies. The course will also cover basic properties of amino acids, peptides, proteins and monoclonal antibodies, structure-function of proteins and DNA, and cellular reactions involved in cell growth and metabolism, translation, transcription, and replication. Topics will cover different expression systems, basic design of vectors, cell transfection and protein expression and associated analytical methods and techniques.

Credits: 2**College:** School of Design & Engineering**Schedule Type:** Lecture**BP 403: Intro to Biopharm Processing****Credits:** 2**College:** School of Design & Engineering**Schedule Type:** Lecture**BP 404: Intro to Downstream Unit Oper****Credits:** 4**College:** School of Design & Engineering**Schedule Type:** Lecture/Lab**BP 405: Intro to Upstream Unit Oper****Credits:** 4**College:** School of Design & Engineering**Schedule Type:** Lecture/Lab**BP 406: Basics of Analytic Tech**

This course is intended for participants with no prior knowledge of analytical bioprocess operations in a manufacturing setting. The course prepares participants for entry-level positions in analytical / bioanalytical through hands-on sessions in the state-of-the art pilot-scale facility at Jefferson's institute for Bioprocessing (JIB). Classroom seminars, presentations, discussions and laboratory training activities introduce students to the basic analytical techniques used in biopharmaceutical industry along with regulatory guidelines and quality control strategies. The intent is to introduce students to the challenges and opportunities in biomanufacturing of a new biologic / biosimilar with a specific focus on using analytical instruments such as HPLC, Capillary Electrophoresis, Mass Hunter Software for LCMS data analysis etc.

Credits: 2**College:** School of Design & Engineering**Prerequisites:** BP 407 and BP 408 [Min Grade: D]**Schedule Type:** Lecture/Lab

BP 407: Princp of Downstream Bio Manuf

This course is intended for participants with no prior knowledge of bioprocess operations in a manufacturing setting. The course prepares participants for entry-level positions in bio manufacturing through hands-on sessions in the state-of-the art pilot-scale facility at Jefferson’s institute for Bioprocessing (JIB). Classroom seminars, presentations and discussions and laboratory training activities introduce students to the basic methods and techniques used by industry practitioners in downstream functional areas including chromatography, buffer exchange and product concentration operations. The intent is to introduce students to the challenges and opportunities in bio manufacturing of a new biologic with the focus specifically on downstream process operations, from the clarified cell free medium to formulated final Active Pharmaceutical Ingredient (API).

Credits: 2

College: School of Design & Engineering

Prerequisites: BP 406 and BP 408 [Min Grade: D]

Schedule Type: Lecture/Lab

BP 408: Princip of Upstream Bio Manufa

This introductory course is intended for participants with no prior knowledge of bioprocess operations in a manufacturing setting. The course prepares participants for entry-level positions in biomanufacturing through hands-on sessions in the state-of-the art pilot-scale facility at Jefferson’s institute for Bioprocessing (JIB). Classroom seminars, presentations, discussion and laboratory training activities introduce students to the basic methods and techniques used by industry practitioners in upstream functional areas. The intent is to introduce students to the challenges and opportunities in biomanufacturing of a new biologic with the focus specifically in this course on upstream process operations, from a removing a cryovial from the Dewar vessel to seeding and expansion through shake flasks and wave bags to production bioreactors and harvesting operations.

Credits: 2

College: School of Design & Engineering

Prerequisites: BP 406 and BP 407 [Min Grade: D]

Schedule Type: Lecture/Lab

Biotechnology (BT)

BT 302: Molec & Immuno Tech

Credits: 4

College: Jefferson College of Health Professions

Prerequisites: LS 302

Schedule Type: Lab

BT 303: Molecular Prep Techniques

Basic aspects of biotechnology laboratory work gel preparation, buffer composition, media preparation, streaking and isolating bacteria. Lecture and laboratory.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lab, Lecture, Lecture/Lab

BT 305: Survey of Biotech Applications

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

BT 310: Fundamental Molec Techniques

Discussion, demonstration and practice of basic molecular techniques including DNA/RNA isolation, restriction digest, gel electrophoresis and blotting techniques. Lecture and laboratory. Co-requisite: BT 303/503

Credits: 4

College: Jefferson College of Health Professions

Schedule Type: Lab, Lecture, Lecture/Lab

BT 320: Cell and Tissue Culture

This course offers basic technique training to handle in vitro cell culture as well as cellular and molecular biological techniques. You will be introduced to the procedures and the underlying scientific principles of cell culture and recombinant protein expression in a variety of cell systems including yeast, insect, and mammalian cell lines. In addition, you will learn techniques to analyze cell phenotype and function (immunohistochemistry, immunofluorescence)

Credits: 4

College: Jefferson College of Health Professions

Schedule Type: Lab, Lecture, Lecture/Lab

BT 323: Biotechnical Chemistry

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lab, Lecture

BT 325: Product Development&Management

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, Lecture/On-Line

BT 401: Systems Biology

Credits: 2

College: Jefferson College of Health Professions

Prerequisites: LS 302

Schedule Type: Lecture

BT 403: Human Genetics

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, Lecture/On-Line

BT 405: Appld Microbial Biotechnology

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

BT 406: Intro to Bioinformatics

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture, Lecture/On-Line

BT 410: Molecular Diagnostic Technique

Laboratory course introducing the student to clinical/diagnostic applications of molecular and biochemical techniques. Laboratory sessions include discussion, demonstration and hands on practice of: isolation of nucleic acids from biological samples, use of hybridization based assays in diagnostic procedures, preparation of probes, clinical application of PCR and RT-PCR, Western blot analyses, protein truncation test, electrophoretic and microarray analysis of genetic polymorphisms; next gen sequencing and proteomics utilization in diagnosis/prognoses determination of disease. An emphasis will be placed on students learning to follow procedures from the literature. Lecture content will provide students with an introduction to the theory and standards of practice of the molecular diagnostic laboratories as well as molecular pathology as it pertains to the development of diagnostic tests

Credits: 4**College:** Jefferson College of Health Professions**Prerequisites:** BT 310**Schedule Type:** Lecture, Lecture/Lab**BT 411: Protein Purification & Charact**

Course covers current methods and theories pertaining to fractionation and purification of proteins from cellular and recombinant sources; including ion exchange, affinity, and size-exclusion based methods. Methods of protein analysis are also discussed including various spectroscopic methods: NMR, fluorescence, mass-spectroscopy, and circular dichroism. Current topics in proteomics are discussed including methods for understanding protein-protein and protein-ligand interactions are covered. Applications in clinical, research and pharmaceutical areas will be discussed. Course will have both lecture and hands-on components

Credits: 3**College:** Jefferson College of Health Professions**Prerequisites:** BT 310**Schedule Type:** Lecture, Lecture/Lab**BT 412: Biotechnology Practicum I****Credits:** 3**College:** Jefferson College of Health Professions**Prerequisites:** BT 320 and BT 410 and BT 411**Schedule Type:** Practicum**BT 416: Comprehensive Exam****Credits:** 0**College:** Jefferson College of Health Professions**Schedule Type:** Exam, On-Line, Seminar**BT 422: Biotechnology Practicum II****Credits:** 3**College:** Jefferson College of Health Professions**Prerequisites:** BT 320 and BT 411**Schedule Type:** Clinical, Practicum**BT 432: Biotechnology Practicum III****Credits:** 3**College:** Jefferson College of Health Professions**Prerequisites:** BT 320 and BT 411 and BT 410**Schedule Type:** Clinical, Practicum**BT 442: Biotechnology Practicum IV****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Practicum

Building Construction Studies (BCS)

BCS 498: Blding & Constr Stds Capstone

This course serves as a capstone course in the Building and Construction Studies program. Students complete the SCPS Portfolio they have been assembling throughout their program. The portfolio provides students with an opportunity to look at the past, present, and future. Students reflect on personal growth and development during their program of study. Students also demonstrate ability to apply knowledge and skills acquired throughout the programs by completing construction-related case analyses. The portfolio concludes with a professional development plan wherein students identify goals for continued professional growth and lifelong learning. The capstone course brings together the student's educational experience to apply the knowledge and skills obtained throughout the major to address real-world business and organizational challenges in today's competitive workforce.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Prerequisites:** (CLC 310 and CLC 320 and CLC 330 and CLC 340 and CLC 350) and (FIN 201 or FIN 323) and (ARCH 204 and ARST 221 and CMGT 104 and CMGT 208 and CMGT 302 and CMGT 404) [Min Grade: D]**Schedule Type:** By Appointment - 1 student, By Appointment - 2 students, Lecture, On-Line

Business (BUS)

BUS 200: Intro to Sports Business

This course will provide students with an overview of the sports management. The topics covered include the following: history of sport management, sports marketing, youth, community and scholastic sport and recreation, sports industry opportunities, professional and international sports

Credits: 3**College:** School of Business**Schedule Type:** Hybrid, Lecture, On-Line**BUS 300: Business Tools for Healthcare**

Students learn and apply current business perspectives and tools in order to address issues and problems in healthcare and the healthcare industry. The course leverages teamwork and innovative problem-solving approaches. Future curriculum development plans include adding additional electives to the minor and creating seamless pathways to relevant graduate programs in the spirit of offering opportunities for lifelong learning.

Credits: 3**College:** School of Business**Prerequisites:** (WRIT 201 or WRIT 202) and HSCI 313 [Min Grade: D]**Schedule Type:** Lecture

BUS 498: Business Management Capstone

This course serves as a capstone course in the Business Management program. Students complete the SCPS Portfolio they have been assembling throughout their program. The portfolio provides students with an opportunity to look at the past, present, and future. Students reflect on personal growth and development during their program of study. Students also demonstrate ability to integrate knowledge and skills acquired throughout the programs by completing a strategic analysis of a company. The portfolio concludes with a professional development plan wherein students identify goals for continued professional growth and lifelong learning.

Credits: 3**College:** School of Business**Prerequisites:** (ACCT 111 or ACCX 111) and (ACCT 112 or ACCX 112) and (BLAW 211 or BLWX 211) and (ECON 231 or ECNX 231) and (MGMT 212 or MGTX 212) and (MKTG 211 or MKTX 211) and (MIS 211 or MISX 211) and (FIN 323 or FINX 323) and (MGMT 321 or MGTX 321) and (MGMT 322 or MGTX 322) and (PHIL 222 or PHLX 222) [Min Grade: D]**Schedule Type:** By Appointment - 1 student, By Appointment, Lecture, On-Line**BUS 499: Business Capstone Seminar**

The process and techniques of strategy formulation, implementation and evaluation are studied and applied. Case studies of domestic and international companies and not-for-profit organizations will be used to integrate strategic management concepts with knowledge acquired in other classes. This course will include extensive written individual and team assignments and oral presentations.

Credits: 3**College:** School of Business**Prerequisites:** (MGMT 401 or MGMT 321 or MGMT 401AC) and (MKTG 102 or MKTG 211 or MKTG 102AC) and (ACCT 102 or ACCT 102AC) and (ACCX 111 or ACCT 101 or ACCT 112 or ACCT 111 or ACCT 101AC) [Min Grade: D]**Schedule Type:** By Appointment - 1 student, By Appointment - 2 students, By Appointment - 3 students, By Appointment - 4 students, Lecture, Online By Appointment 8 Week, On-Line

Business (Online) (BUSX)

BUSX 498: Business Management Capstone

This course serves as a capstone course in the Business Management program. Students complete the SCPS Portfolio they have been assembling throughout their program. The portfolio provides students with an opportunity to look at the past, present, and future. Students reflect on personal growth and development during their program of study. Students also demonstrate ability to integrate knowledge and skills acquired throughout the programs by completing a strategic analysis of a company. The portfolio concludes with a professional development plan wherein students identify goals for continued professional growth and lifelong learning.

Credits: 3**College:** School of Business**Prerequisites:** (ACCT 111 or ACCX 111) and (ACCT 112 or ACCX 112) and (BLAW 211 or BLWX 211) and (ECON 231 or ECNX 231) and (MGMT 212 or MGTX 212) and (MKTG 211 or MKTX 211) and (MIS 211 or MISX 211) and (FIN 323 or FINX 323) and (MGMT 321 or MGTX 321) and (MGMT 322 or MGTX 322) and (PHIL 222 or PHLX 222) [Min Grade: D]**Schedule Type:** By Appointment - 1 student, By Appointment, On-Line**BUSX 499: Business Capstone Seminar****Credits:** 3**College:** School of Business**Schedule Type:** By Appointment - 1 student, By Appointment - 4 students, On-Line

Business Law (BLAW)

BLAW 211: Business Law

This course provides an overview of the legal and regulatory environment of business in the U.S. Topics include forms of business organization, contracts, torts and product liability, real property, intellectual property, and employment law.

Credits: 3**College:** School of Business**Prerequisites:** ENGL 101 or WRIT 101 or ENGX 101 or ENGL 110 or ENGX 110 [Min Grade: D]**Schedule Type:** By Appointment - 1 student, Lecture, On-Line**BLAW 301: Business Law**

Lecture, class discussion and case problems emphasizing legal principles on the following topics: the legal environment, government regulation of business, contracts, personal property, environmental liability as it relates to business transactions, bankruptcy, employment and human resources, and current legal issues. The legal environment as it impacts business decision making is addressed. [Writing Intensive]

Credits: 3**College:** School of Business**Prerequisites:** WRIT 101 or WRIT 101G or WRIT 101S [Min Grade: D]**Schedule Type:** Lecture, On-Line

Business Law (Online) (BLWX)

BLWX 211: Business Law

This course provides an overview of the legal and regulatory environment of business in the U.S. Topics include forms of business organization, contracts, torts and product liability, real property, intellectual property, and employment law.

Credits: 3**College:** School of Business**Prerequisites:** ENGL 101 or ENGX 101 or WRIT 101 or ENGX 110 [Min Grade: D]**Schedule Type:** By Appointment - 2 students, On-Line

CAD (Computer Aided Design) (CAD)

CAD 201: Intro to Digital Imaging

This course focuses on increasing the student's individual level of computer literacy through the exploration of the basic structure of the operating system, general internet skills and the fundamentals of both raster and vector based software. Course projects provide hands-on experience with Adobe Photoshop and Adobe Illustrator software.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lab, Lecture, Lecture/Lab, On-Line

CAD 204: Digital Fashion Design I

Computer-aided design is utilized in every segment of the fashion industry from concept development, fabric design and illustration to line development, technical drawing, and presentations. Students learn CAD software and gain skills utilized in a variety of industry-related projects.

Credits: 3**College:** School of Design & Engineering**Prerequisites:** FASD 252 and FASR 207 [Min Grade: D]**Schedule Type:** Lab, Lecture, On-Line**CAD 206: CAD I for Industrial Design**

The course introduces students to computer-aided design with a focus on the industrial design processes. In an intuitive fashion, students create and refine designs using a solids-modeling software package.

In order to recognize the critical role CAD plays in the development of designs, students will use designs created in design studio courses as the subject matter of the CAD activities. Design-control drawings, three-dimensional rendered drawings and perspective drawings will be the course's output.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lab, Lecture, On-Line**CAD 206N: CAD I for Industrial Design**

The course introduces students to computer-aided design with a focus on the industrial design processes. In an intuitive fashion, students create and refine designs using a solids-modeling software package.

In order to recognize the critical role CAD plays in the development of designs, students will use designs created in design studio courses as the subject matter of the CAD activities. Design-control drawings, three-dimensional rendered drawings and perspective drawings will be the course's output.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lab, Lecture, Lecture/Lab, On-Line**CAD 301: Adv Comp-Aided Textile Design****Credits:** 3**College:** School of Design & Engineering**Prerequisites:** CAD 201 [Min Grade: D]**Schedule Type:** Lab, Lecture**CAD 306: CAD II Dig Design Techniques**

This course will build upon principles introduced in introductory CAD courses. It is primarily a laboratory course in which students will learn to take their early design concepts through to the final presentation using advanced digital design techniques. Students will use multiple digital design software packages across computer platforms with an emphasis on CAID packages such as NURBS modelers and animation software, as well as vector-based, desktop-publishing programs and bitmap-based programs.

Credits: 3**College:** School of Design & Engineering**Prerequisites:** CAD 206 or CAD 206N [Min Grade: C-]**Schedule Type:** Lab, Lecture, Lecture/Lab, On-Line**CAD 401: Apparel CAD/CAM**

A comprehensive course that incorporates software widely used in the apparel industry where patterns are created then graded and made into markers. Industry standards and specifications are followed for each area. Students use software to solve problems and increase productivity. Prerequisites A grade of "C" or better in FASD 213 Pattern Development I

Credits: 3**College:** School of Design & Engineering**Prerequisites:** FASD 213 [Min Grade: C]**Schedule Type:** Lab, Lecture, Lecture/Studio Combination

Chemistry (CHEM)

CHEM 2XX: Advanced Chemistry Elective**Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture**CHEM 3XX: Advanced Chemistry Elective****Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture**CHEM 101: General Chemistry**

(for non-science majors) This course allows students to pursue further study of chemical issues as they relate to the consumer and to health. Students will become familiar with issues surrounding the use of everyday products such as laundry products, personal-care products, plastics, fibers and food additives. Also included are an introduction to organic chemistry, biochemistry and the chemistry of some health-related issues. Students should complete this course with an awareness of the complexities of the chemical structures in their daily lives and the issues involving their use and abuse, so that they may make more informed decisions.

Credits: 3**College:** Jefferson College of Life Sciences**Schedule Type:** Lab, Lecture, Lecture/Lab**CHEM 101L: General Chemistry I Lab****Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** Lab**CHEM 103: Chemistry I**

(required for Science and Engineering majors) An introduction to the fundamental laws and theories of chemistry, including the properties of matter, chemical reactions and stoichiometry, energy and thermochemistry, atomic structure, and the periodic table. Basic knowledge of algebra, geometry and trigonometry is presumed. Students enrolled in MATH-099 or MATH-100 may not take this course. This course is not recommended for students enrolled in the WRIT-100 fundamentals course.

Credits: 3**College:** Jefferson College of Life Sciences

Prerequisites: MATH 100 or Math Placement (Non-Science) with a score of 10 or Math Placement (Science) with a score of 10 [Min Grade: D]

Corequisites: CHEM 103L**Schedule Type:** Lecture, On-Line

CHEM 103L: Chemistry I Lab

required for Science and Engineering majors) This hands-on laboratory-based course highlights concepts covered in Chemistry I Lecture. Emphasis is placed on developing good laboratory and data analysis skills. Experiments include acid/base titrations, heat determination using calorimeters and oxidation/reduction reactions.

Credits: 1

College: Jefferson College of Life Sciences

Prerequisites: MATH 100 or Math Placement (Non-Science) with a score of 10 or Math Placement (Science) with a score of 10 [Min Grade: D]

Corequisites: CHEM 103

Schedule Type: By Appointment - 1 student, Lab, On-Line

CHEM 104: Chemistry II

(required for science majors) Continuation of CHEM 103 Chemistry I. that provides an introduction to chemical bonding and molecular geometry, property of gases, intermolecular attractions, solutions, kinetics, chemical equilibrium, acids, bases and thermodynamics.

Credits: 3

College: Jefferson College of Life Sciences

Prerequisites: (CHEM 103 or CHEM 113) and (CHEM 103L or CHEM 113L) [Min Grade: C-]

Corequisites: CHEM 104L

Schedule Type: Independent Study, Lecture, On-Line

CHEM 104L: Chemistry II Lab

(required for science majors) This hands-on laboratory-based course highlights concepts covered in Chemistry II Lecture. Analytical and data interpretation/ presentation skills are honed through a series of experiments including aspirin synthesis and determination of vitamin C content.

Credits: 1

College: Jefferson College of Life Sciences

Prerequisites: (CHEM 103 or CHEM 113) and (CHEM 103L or CHEM 113L) [Min Grade: C-]

Corequisites: CHEM 104

Schedule Type: Lab, On-Line

CHEM 105: Intro to Research Methods

Credits: 1

College: Jefferson College of Life Sciences

Schedule Type: Lecture

CHEM 110: General Chemistry I

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lab, Lecture, On-Line

CHEM 111: General Chemistry I Lab

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: Lab, On-Line

CHEM 112: General Chemistry II Lab

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: Lab, Online Lab, On-Line

CHEM 113: Chemistry I

An introduction to the fundamental laws and theories of chemistry, including properties of matter, chemical reactions and stoichiometry, energy and thermochemistry, atomic structure and the periodic table.

Credits: 3

College: Jefferson College of Life Sciences

Prerequisites: MATH 100 or Math Placement (Non-Science) with a score of 10 or Math Placement (Science) with a score of 10 [Min Grade: D]

Corequisites: CHEM 113L

Schedule Type: Lecture

CHEM 113L: Chemistry I Lab

This course provides hands-on experience with topics addressed in lecture, and includes lab exercises illustrating the fundamental laws and theories of chemistry, including properties of matter, chemical reactions and stoichiometry, energy and thermochemistry, atomic structure and the periodic table. Completion of lab exercises/experiments will provide useful reinforcement of topics presented in the lecture course component and provide valuable experience with lab techniques.

Credits: 1

College: Jefferson College of Life Sciences

Corequisites: CHEM 113

Schedule Type: Lab

CHEM 114: Chemistry II

An introduction to chemical bonding and molecular geometry, intermolecular attractions, properties of solutions, kinetics, chemical equilibrium, acids, bases, buffers, and thermodynamics.

Credits: 3

College: Jefferson College of Life Sciences

Prerequisites: CHEM 113 and CHEM 113L [Min Grade: C-]

Corequisites: CHEM 114L

Schedule Type: Lecture

CHEM 114L: Chemistry II Lab

This course provides hands-on experience with topics addressed in lecture, and includes lab exercises illustrating the fundamental laws and theories of chemistry, including properties of solutions, equilibrium and kinetics in chemical reactions, and equilibrium conditions of other aqueous solutions. Completion of lab exercises/experiments will provide useful reinforcement of topics presented in the lecture course component and provide valuable experience with lab techniques.

Credits: 1

College: Jefferson College of Life Sciences

Prerequisites: CHEM 113 and CHEM 113L [Min Grade: C-]

Corequisites: CHEM 114

Schedule Type: Lab

CHEM 201: Organic Chemistry I

First semester in a 2-semester lecture series on Organic Chemistry. Topics include origin and history of organic chemistry; chemical bonding, structure and properties of organic compounds; structure, properties and nomenclature of the alkanes; stereochemistry, and a comprehensive discussion of the substitution and elimination reactions of alkyl halides.

Credits: 3

College: Jefferson College of Life Sciences

Prerequisites: (CHEM 104 and CHEM 104L) or (CHEM 114 and CHEM 114L) [Min Grade: C-]

Corequisites: CHEM 201L

Schedule Type: Lecture, On-Line

CHEM 201L: Organic Chemistry I Lab

First semester in a 2-semester companion course to Organic Chemistry Lecture. Topics include practical instruction in basic organic chemistry laboratory techniques such as recrystallization, distillation, extraction, reflux, thin-layer chromatography, gas chromatography, and IR spectroscopy. Utilizing these techniques, the synthesis and characteristic reactions of alkyl halides are explored.

Credits: 1**College:** Jefferson College of Life Sciences**Prerequisites:** (CHEM 104 and CHEM 104L) or (CHEM 114 and CHEM 114L) [Min Grade: C-]**Corequisites:** CHEM 201**Schedule Type:** Lab**CHEM 202: Organic Chemistry II**

Second semester in a 2-semester lecture series on Organic Chemistry. Topics include the structure, nomenclature, synthesis and characteristic reactions of alkenes, alkynes, alcohols, aldehydes, ketones & aromatic compounds.

Credits: 3**College:** Jefferson College of Life Sciences**Prerequisites:** CHEM 201 and CHEM 201L [Min Grade: C-]**Corequisites:** CHEM 202L**Schedule Type:** Lecture, On-Line**CHEM 202L: Organic Chemistry II Lab**

Second semester in a 2-semester companion course to Organic Chemistry Lecture. Utilizing techniques learned in first semester, the synthesis and characteristic reactions of alkenes, alcohols, aromatics and aldehydes/ketones are studied.

Credits: 1**College:** Jefferson College of Life Sciences**Prerequisites:** CHEM 201 and CHEM 201L [Min Grade: C-]**Corequisites:** CHEM 202**Schedule Type:** Lab**CHEM 206: Forensic Chemistry**

Students will become acquainted with the various sub-disciplines of forensic science with emphasis on the chemical principles used to collect, process, identify, quantify and qualify crime scene/victim evidence. Through lectures and case studies, the scientific foundations for the examination of physical, chemical, and biological evidence will be explored. Laboratory sessions will provide hands on experience with modern forensic techniques used to analyze physical evidence such as blood, glass, and fibers. The course will culminate with a mock trial in which students present the results of their analytical investigations to a jury.

Credits: 3**College:** Jefferson College of Life Sciences**Corequisites:** CHEM 206L**Schedule Type:** By Appointment, Lab, Lecture**CHEM 206L: Forensic Chemistry Lab****Credits:** 1**College:** Jefferson College of Life Sciences**Corequisites:** CHEM 206**Schedule Type:** Lab**CHEM 214: Bioorganic Chemistry**

This course is a one-semester overview of organic chemistry and biochemistry for PA majors and open to those who meet the prerequisites. After introduction to different functional groups, the course provides a systematic study of the biologically important compounds, including amino acids, proteins, nucleic acids, enzymes, carbohydrates and lipids. Emphasis will be placed upon the structure, properties and functions of these compounds. The course will culminate in an overarching discussion of the intricacies of metabolism of some of these biomolecules.

Credits: 3**College:** Jefferson College of Life Sciences**Prerequisites:** (CHEM 104 and CHEM 104L) or (CHEM 114 and CHEM 114L) [Min Grade: C-]**Schedule Type:** Lecture, On-Line**CHEM 304: Biochemistry****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Independent Study, Lecture**CHEM 305: Physical Chemistry I**

Fundamental topics in thermodynamics are covered, emphasizing the first three laws of thermodynamics. Applications of these principles and chemical equilibrium to ideal gases, real gases, solutions and solids are discussed. Chemical kinetics is covered in detail. A brief examination of the field of chemical dynamics is included. Where appropriate, current research in these areas will be discussed. The laboratory will emphasize using chemistry techniques such as FTIR, UV-Vis, GC and computational programs to examine fundamental physical processes.

Credits: 3**College:** Jefferson College of Life Sciences**Prerequisites:** (CHEM 202 and CHEM 202L) or (PHYC 203 and PHYC 203L) and MATH 112 [Min Grade: D]**Corequisites:** CHEM 305L**Schedule Type:** Lecture, Lecture/Lab**CHEM 305L: Physical Chemistry 1 Lab****Credits:** 1**College:** Jefferson College of Life Sciences**Corequisites:** CHEM 305**Schedule Type:** By Appointment - 1 student, Lab**CHEM 306: Physical Chemistry II**

Quantum mechanics is the fundamental theory underlying the description of atoms. It details how atoms can interact on the microscopic level. Quantum mechanics will be used to understand the observed spectroscopic properties of atoms and molecules. Statistical mechanics, which connects the macroscopic world of thermodynamics and kinetics with quantum mechanics, will also be covered. The laboratory is a continuation of CHEM-305 with an emphasis on spectroscopy.

Credits: 3**College:** Jefferson College of Life Sciences**Prerequisites:** CHEM 305 and MATH 331 [Min Grade: D]**Corequisites:** CHEM 306L**Schedule Type:** Lab, Lecture, Lecture/Lab**CHEM 306L: Physical Chemistry II Lab****Credits:** 1**College:** Jefferson College of Life Sciences**Corequisites:** CHEM 306**Schedule Type:** Lab

CHEM 309: Inorganic Chemistry

An advanced course in modern inorganic chemistry that covers structure and bonding, symmetry, thermodynamics and mechanisms; along with a systematic discussion of reactions and properties of representative main group and transition metal elements. This course will also illustrate some of the relationships between inorganic chemistry and other areas of chemistry, including biochemistry. The laboratory covers a variety of synthetic techniques and physical and analytical methodologies that are particularly applicable to inorganic compounds.

Credits: 3

College: Jefferson College of Life Sciences

Prerequisites: CHEM 202 and CHEM 202L [Min Grade: D]

Corequisites: CHEM 309L

Schedule Type: Lab, Lecture, Lecture/Lab

CHEM 309L: Inorganic Chemistry Lab

Credits: 1

College: Jefferson College of Life Sciences

Corequisites: CHEM 309

Schedule Type: Lab

CHEM 310: Intro to Pharmaceutical Industry

The goal of this course is to give a broad understanding of Pharmaceutical Industry and the many areas of the business. The course will cover the lifecycle overview of drug development and the organization that support each step of the lifecycle. This course will give an overview of drug development and a career in the pharma industry.

Credits: 3

College: Jefferson College of Life Sciences

Prerequisites: CHEM 202 and CHEM 202L [Min Grade: C-]

Schedule Type: Hybrid, Independent Study, Lecture

CHEM 311: Basic Pharmacology

Credits: 3

College: Jefferson College of Life Sciences

Prerequisites: (CHEM 201 and CHEM 201L) or CHEM 214 [Min Grade: C-]

Schedule Type: Lecture

CHEM 323: Instrumental Meth of Analysis

WRITING INTENSIVE: This course provides an overview of the variety of analytical and instrumental methods for quantitative and qualitative chemical analysis. Topics include gravimetric and volumetric analysis; ultraviolet, infrared, and visible spectroscopy; gas and liquid chromatography; and mass spectrometry. Laboratory sessions hone students' analytical- and criticalthinking skills. Students are required to work on a group research project and present their findings at a local/regional scientific conference. [Writing Intensive]

Credits: 3

College: Jefferson College of Life Sciences

Prerequisites: CHEM 202 and CHEM 202L [Min Grade: D]

Corequisites: CHEM 323L

Schedule Type: Lab, Lecture, Lecture/Lab

CHEM 323L: Instrmntl Meth of Analysis Lab

Credits: 1

College: Jefferson College of Life Sciences

Corequisites: CHEM 323

Schedule Type: Lab

CHEM 371: Selected Topics in Chemistry

A study of a specialized topic and/or recent developments in one of the fields of chemistry. Sample topics might include theoretical organic chemistry, spectroscopy, photochemistry, stereo-chemistry and computational chemistry.

Credits: 3

College: Jefferson College of Life Sciences

Prerequisites: CHEM 202 and CHEM 202L [Min Grade: D]

Schedule Type: By Appointment - 5 students, Independent Study, Lecture

CHEM 371L: Selected Topics in Chem Lab

Credits: 1

College: Jefferson College of Life Sciences

Prerequisites: CHEM 371

Schedule Type: Lab

CHEM 391: Research in Chemistry I

Students interested in pursuing independent research in any field of chemistry or biochemistry under faculty supervision must submit a proposal to the dean of the School of Science and Health for approval at least two weeks before pre-registration. The research will include both literature search and experimental work in any current field of chemistry or biochemistry. At the end of the semester, students will be expected to do an oral presentation to the faculty during reading days and prepare a comprehensive written report as mandated by the American Chemical Society.

Credits: 3

College: Jefferson College of Life Sciences

Prerequisites: CHEM 202 and CHEM 202L [Min Grade: D]

Schedule Type: By Appointment - 1 student, By Appointment - 2 students, By Appointment - 3 students, By Appointment - 4 students, By Appointment, Independent Study

CHEM 392: Research in Chemistry II

Continuation of CHEM-391

Credits: 3

College: Jefferson College of Life Sciences

Prerequisites: CHEM 391 [Min Grade: D]

Schedule Type: By Appointment - 1 student, By Appointment - 2 students, Independent Study

CHEM 398: Chemistry Transfer Elective

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lecture

CHEM 405: Advanced Organic Chemistry

Credits: 3

College: Jefferson College of Life Sciences

Prerequisites: CHEM 202 and CHEM 202L [Min Grade: D]

Schedule Type: Lecture

CHEM 410: Polymer Chemistry

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lecture

CHEM 417: Environmental Chemistry

Credits: 3

College: Jefferson College of Life Sciences

Prerequisites: (CHEM 104 and CHEM 104L) or (CHEM 114 and CHEM 114L) and CHEM 417L [Min Grade: C-]

Schedule Type: Lab, Lecture, Lecture/Lab

CHEM 417L: Environmental Chem Lab**Credits:** 1**College:** Jefferson College of Life Sciences**Prerequisites:** CHEM 417**Schedule Type:** Lab

Chemistry (Online) (CHMX)

CHMX 110: General Chemistry I**Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lab, Lecture, On-Line**CHMX 111: General Chemistry Lab****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** By Appointment - 3 students, Lab, On-Line

Chemistry (P4) (CHE)

CHE 101: General Chemistry I**Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture, Lecture/Lab**CHE 102: General Chemistry II****Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Lab, Lecture, Lecture/Lab, Lecture/On-Line, On-Line**CHE 103: General Chemistry I Lab****Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** Lab, On-Line**CHE 104: General Chemistry II Lab****Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** Lab, On-Line**CHE 201: Organic Chemistry I****Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Lab, Lecture, Lecture/Lab, Lab/Lecture/Online, Lecture/On-Line, On-Line**CHE 202: Organic Chemistry II****Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Lab, Lecture, Lecture/Lab, On-Line, Seminar**CHE 203: Organic Chemistry I Lab****Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** Lab**CHE 204: Organic Chemistry II Lab****Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** Lab, On-Line**CHE 301: Biochemistry****Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Clinical, Lab, Lecture**CHE 302: Biochemistry Laboratory****Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** Lab, Lecture/Lab, On-Line

College Studies (CLST)

CLST 499: Contemporary Perspectives

(writing intensive) The capstone seminar of the College Studies program, this writing intensive-course examines the origins and impact of current international trends with an emphasis on the period since World War II. Students also address questions of intercultural understanding at the global, regional and local level. A final research paper requires students to connect these global trends with issues in their profession.

Credits: 4**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture

Communication (Online) (COMX)

COMX 204: Technologies of Communication

The social media course that's an essential component of the major. Students will consider communication technologies and how and what people communicate using those technologies. We'll examine the role of communication technologies in society and culture, with an emphasis on how they function in the information age. This will include both the social and cultural influences that have shaped the development of various emerging media, information, and communication technologies.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** By Appointment - 2 students, By Appointment - 4 students, Lecture, Online By Appointment 8 Week, On-Line**COMX 220: Speak to Lead in Digital Age**

In this course you will learn to merge the basics of effective public speaking with visual technology, allowing you to make effective and professional quality presentations. You will intensively practice speaking in front of an audience. In addition, you will study the standards of professional presentation for different audiences. These skills will not only be useful in larger, formal public speaking settings, but also for small group and interpersonal communications, and for constructing, analyzing and criticizing claims, arguments and rhetorical techniques more generally.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** By Appointment - 2 students, On-Line**COMX 240: The Blog**

COMX 240 is an on-line course that explores various forms of social media and helps students identify both the positive and negative aspects of using these media. Students will build a plan for developing a useful, safe online footprint.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** By Appointment - 3 students, On-Line

COMX 304: Film: The Reel Experience

This course deals with the elements of film including the script, filming techniques, direction, acting, editing, art and set design, costume and makeup, and historical development. Examples from various genres are viewed for analysis. Prerequisite: ENG207

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: By Appointment - 6 students, On-Line

COMX 307: Public Relations & Media Wrtg.

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

COMX 320: Professional Comm Skills

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: On-Line

COMX 375: Public Relations

This course focuses on the role of managed communications in public relations. It includes definitions and concepts, history, potential careers, and research methods.

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: By Appointment - 3 students, On-Line

COMX 404: Prof Comm Capst Portfolio Proj

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: COMM 206 or COMM 307 [Min Grade: D]

Schedule Type: By Appointment - 1 student, By Appointment - 2 students, On-Line

Communications & Media Studies (COMS)

COMS 101: Intro to Comm & Media Studies

This course introduces students to the history, theory, practices, institutions, and impact of modern communications media. We will examine both print and non-print media and address the media's impact on society, how audiences respond to media, how people produce and consume media, and media industries and careers. Students will apply what they learn by composing in multiple mediums and other means of communication integral to contemporary communications.

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

COMS 102: Introduct to Public Speaking

This course is designed to expand your public speaking "tool box". By preparing and performing a range of speaking assignments, engaging in in-class activities, and reading the assigned textbook, each student should leave this course with an increased comfort in expressing ideas before various audiences. These skills will not only be useful in larger, formal public speaking settings, but also for small group and interpersonal communications, and for constructing, analyzing and criticizing claims, arguments and rhetorical techniques more generally.

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

COMS 200: Visual Media

Students will analyze various visual genres (e.g., philosophy, graphics, videos, films, television shows) to learn how the visual elements of texts affect understanding. Students will produce a multimedia project and final research project.

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: WRIT 101 or WRIT 101G or WRIT 101S [Min Grade: D]

Schedule Type: Lecture

COMS 201: Intercultural Communication

An experiential approach to developing intercultural awareness. Presents three aspects of intercultural communication: (1) knowledge of culture and cultural differences; (2) attitudes and feelings about those who are culturally different; and (3) skills or new behaviors to improve effective communication when living and/or working with people of other cultures. Uses videos, classroom guests and field trips to ethnic museums, restaurants and festivals, as well as in-class exercises, readings and discussions.

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

COMS 202: Responsible News&Research

This course introduces students to the basics of quality social scientific research, in addition to the basics of responsible newsgathering. Students in this course analyze and design interview plans, survey instruments, polls, samples, and other quantitative and qualitative research methods. Students learn about the ethics of research, especially as regards human subjects.

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

COMS 203: Digital Communication & Culture

Students will consider communication technologies and how and what people communicate using those technologies. We'll examine the role of communication technologies in society and culture, with an emphasis on how they function in the information age. This will include both the social and cultural influences that have shaped the development of various emerging media, information, and communication technologies.

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture, On-Line

COMS 204: Intro to Video Production

This course is designed to help students think about and experiment with the components of documentary video production. Throughout the course, students will develop the skills to produce, film, and edit video for promotional, news, or documentary purposes.

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

COMS 206: PR/Strategic Communication

The tools and tactics of strategic communication are changing dramatically as a result of the constantly transforming digital media environment. Because of this, organizations in both the for-profit and non-profit world find themselves constantly facing the challenge of determining what communication strategies and products will set them apart? This course incorporates lecture, class speakers and a significant group project for an outside organization to provide students with an overview of what's involved in the strategic communications industries, how the campaign development process works, and some of the challenges facing the field.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**COMS 300: Audio Production: Podcasting**

This course provides a brief introduction to the principles, tools, and techniques of digital audio recording, editing and production. Through discussion, demonstrations, and hand-on experiences in the studio and the field, students will gain an understanding of the nature of sound, basic microphone usage, digital audio recording equipment and techniques, digital sound editing, writing, narration, and production techniques used in news, podcasting, and audio documentaries.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**COMS 306: Social Media Strategies**

This course investigates how social media platforms and personal digital technologies have radically shifted the way that businesses, politicians, and other meaning makers circulate their messages. Students will work on a social media messaging campaign, carefully tailoring the content and form of the message to the appropriate audience and social media platforms.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**COMS 307: Media Writing**

Students in this course learn the fundamentals of writing for multiple public audiences in multiple communication formats and genres. Students will also learn to judge the importance of information as well as set priorities and tailor writing to meet the needs of different audiences.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**COMS 312: Fashion Communication**

Fashion is one of the fundamental ways in which humans communicate about themselves and their desired self-image. Students will examine the intersection between fashion, media, personal identity, and image management in today's society. They will learn how the fashion industry creates powerful and persuasive messages through channels, and how those images are reinforced through media. Guest speakers, industry-based learning projects, and field trips will aid students in transforming theory into fashion communication practice.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**COMS 314: Sports Communication**

In today's media based world there is little that divides the fields of Communication and Sports. Students will explore their intersection through examination of journalism, social media, media relations, sports information production and advertising. By critically analyzing actual media coverage of sporting events, addressing social and ethical issues involved in college and professional sports, meeting professionals in the field and developing an understanding of sports promotion and advertising processes, students gain an in-depth understanding of not only the professional issues involved in sports communication, but their larger importance in our society.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**COMS 316: Multimedia Journalism**

Students will learn reporting and storytelling techniques across several media including text, video, audio, and social platforms. They will also learn how to utilize digital sources to gather and verify information.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** COMM 300 or COMS 300 or COMM 204 or COMS 204 [Min Grade: D]**Schedule Type:** Lecture**COMS 318: Crisis Communication**

Crises are a fact of life in organizations, whether it is in business, fashion, politics, sports or others, and being able to navigate through them is a crucial skill for all communication professionals. Building on much of what students have learned in their previous communication classes, this course will be an introduction to crisis communication theory and application. The class time and readings will cover crisis management approaches, classic cases and the influence of culture on crisis communication. Additionally, throughout the semester students will engage in group simulations, field trips and individual projects to master the tools of the trade.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** COMM 101 and COMM 206 [Min Grade: D]**Schedule Type:** Lecture**COMS 322: Writing for Non-Profit**

While academic writing courses are designed to prepare you for the writing required as a university student, this course prepares students for writing and communication in a professional setting. In particular, this course focuses on the specific demands of communicating and writing for non-profit organizations. We study the audiences you may encounter in the field and the diverse writing tasks that you may be asked to complete. The numerous writing workshops and peer group tasks make this a very collaborative course and will prepare students for a career at a non-profit organization. Therefore, the course will run, as much as is possible, as a non-profit writing consultancy.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture

COMS 402: Prof Ethics in Communication

This course, designed for the senior in Professional Communication, will focus on important ethical issues facing the profession and its practitioners. The course will not advocate for particular ethical standards, but it will strive to motivate students to critically and analytically think about standards are germane to their personal and professional lives, to consider reasons why current standards are in place, and to evaluate whether current ethical standards are sufficient, workable, and understood by communication professionals.

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

COMS 404: Professional Comm Capstone

This course, designed for the senior in Professional Communication, will focus on integrating your college course work through developing a capstone project portfolio. By working on a capstone project that draws on prior course work and that culminates in an oral presentation and a written project, students will use critical thinking skills in synthesizing previous course work to extend and develop original ideas.

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

Communications (COMM)

COMM 201: Intercultural Communic

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

COMM 214: Technologies of Communication

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture, On-Line

COMM 220: Speak to Lead in Digital Age

In this course you will learn to merge the basics of effective public speaking with visual technology, allowing you to make effective and professional quality presentations. You will intensively practice speaking in front of an audience. In addition, you will study the standards of professional presentation for different audiences. These skills will not only be useful in larger, formal public speaking settings, but also for small group and interpersonal communications, and for constructing, analyzing and criticizing claims, arguments and rhetorical techniques more generally. This course is a hybrid, meaning our in-class work will be supplemented by online assignments. These are indicated by an ONLINE in the syllabus and on our Canvas course site. We will not meet in our classroom that week, but will submit the assigned work for that day online. This work will expand and support our in-class discussions.

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: By Appointment - 2 students, By Appointment - 3 students, By Appointment - 4 students, Lecture, On-Line

COMM 240: The Blog

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: By Appointment - 1 student, Lecture, On-Line

COMM 301: Rhetoric and Debate

Credits: 2,3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

COMM 304: Film: The Reel Experience

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture, On-Line

COMM 305: Multimedia Presentations

Students in this course learn to marry the basics of effective public speaking with visual technology, to allow them to make effective and professional quality presentations. Students will master these technologies and intensively practice speaking in front of an audience. In addition, students will study the standards of professional presentation that befit different audiences.

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture, On-Line

COMM 310: Communication Theory & Dynamics

This course is designed to provide viable frameworks in communication and organizational theories and dynamics. Diagnostic criteria and delivery techniques will also be explored, within both theoretical and pragmatic realms. The class will be conducted in an interactive seminar format.

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: By Appointment - 4 students, Lecture

COMM 320: Professional Comm Skills

This General Education Core course requires students to analyze, produce, and revise professional communication in a variety of written, oral, and multi-model formats. Students produce individual and group projects in print and multimedia settings as they explore how economic, social and political perspectives apply to workplace communications, the professions and the professionals themselves.

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: By Appointment - 3 students, By Appointment - 4 students, Lecture, On-Line

COMM 375: Public Relations

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture, On-Line

Community & Trauma Counseling (CTC)

CTC 200: Relatn Trauma to Childhd Dev.

This course integrates an understanding of typical processes and stages of childhood growth and development with an appreciation for the impact interactions by caregivers can have on the development of healthy/positive physical, intellectual, emotional, social and relational outcomes for infants, toddlers and children. Exploring what can influence positive outcomes opens minds to new awareness that in turn leads to discussions around the potential for negative outcomes, such as those connected with adverse childhood experiences and other forms of trauma. Students will identify and understand some causes of trauma and the impact of trauma on the growth, development and functioning of the brain. Discussion provides an overview of practices that influence healthy growth and development to inspire and inform such practices that can lead to the prevention of adverse experiences in childhood. An additional focus is the preparation for future exploration around the causes and impact of childhood adversity, and appropriate interventions for children and families who have experienced adversity.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

CTC 202: Enhancing Trauma Awareness

This course provides vital information on the causes of trauma, the complexity of trauma's presentation in children, and the impact of trauma on development. Common trauma-related responses in children will be explored, and suggestions for trauma-sensitive behaviors on the part of professionals and others who serve as caregivers of children will be provided. This course aims to develop a greater awareness of the potential impact of trauma on a myriad of related developmental processes.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

CTC 204: Apply Trauma Princ in Practice

This course focuses on trauma knowledge and skill acquisition, coupled with reflective practice to enhance students' progression toward trauma competence. Special attention is paid to the application of trauma principles within real-life situations to promote transfer of training.

Prerequisites: CTC 200 & CTC-202

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

CTC 230: Enhan App of Trauma Principles

Enhancing Practical Application of Childhood Trauma Principles This course builds upon previous learning in childhood trauma, and expands upon the practical application of childhood trauma knowledge and skills through a practicum approach. Students engage in observations, planning, implementation and evaluation, and participate in Reflective Processing to enhance their development and competence.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

Computation (COMP)

COMP 101: Introduction to Coding

This course is designed to introduce students to the process of coding. It assumes no background in programming or computer science and is intended for students of all majors who want to learn more about computation. Students will learn the basic syntax of the python programming language and apply that syntax to basic coding problems involving text and data manipulation. Students will learn to solve their own coding problems by consulting online resources and will take the first steps towards learning how to define a computational problem.

Credits: 1

College: Jefferson College of Humanities & Sciences

Schedule Type: Lab, Lecture

COMP 102: Intro to Scientific Computing

This course is designed to introduce students to scientific computing in python. It assumes some prior experience with the python language and is intended for students of all majors who want to learn more about scientific computing. Students will learn to use common python libraries for working with data. Students will solve instructor-provided scientific problems by first defining those problems computationally and then applying tools from the aforementioned libraries to solve the problems and visualize the results.

Credits: 1

College: Jefferson College of Humanities & Sciences

Prerequisites: COMP 101 or ENGR 104 [Min Grade: B-]

Schedule Type: By Appointment - 1 student, Lab, Lecture

COMP 103: Data Analysis & Visualization

This course is designed to facilitate continued development of student scientific computing skills in the field of data visualization and analysis. It assumes some prior experience with the python language and its scientific computing libraries. The course will provide an introduction to parametric statistical techniques including the calculation of variance and variance ratios, the implementation and interpretation of correlation and regression analysis, the student t-test, and Chi-square analysis. Students analyze instructor-provided data sets by summarizing data using computational techniques and applying visualization tools in order to communicate the results.

Credits: 1

College: Jefferson College of Humanities & Sciences

Prerequisites: COMP 102 [Min Grade: B-]

Schedule Type: Lab, Lecture

Computer (Online) (CISX)

CISX 112: Introduction to Computing

This course strives to meet the high level of computer literacy required of all students earning a degree from the university. Special emphasis is placed on the ethical use of computer technology for information analysis and communications. Computer units introduce the Internet, Windows, word processing, database analysis, spreadsheets, and presentation software.

Credits: 3

College: School of Business

Schedule Type: By Appointment - 1 student, By Appointment - 4 students, On-Line

Computer Studies (CMST)

CMST 101: Essentials of Computing

Credits: 3

College: School of Business

Schedule Type: Lecture, Lecture/Lab

Construction Management (CMGT)

CMGT 1XX: Construction Mgmt Elective

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: Lab, Lecture

CMGT 3XX: Construction Mgmt Elective

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: Lecture

CMGT 101: Construction Graphics

CMGT 101 Construction Graphics (2-2-3) An introduction to the nature and vocabulary of graphical expression used in construction drawings, details, and sketches to include, architectural, structural, civil, mechanical, electrical, disciplines. Students develop an appreciation for the importance of effective graphical documentation and interpret drawings in terms of form, size, distance, quantity and interrelation of elements. Emphasis is placed on effective sketched, verbal, and written expression of drawing interpretations to audiences not familiar with construction drawings.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: Hybrid, Lab, Lecture, Lecture/Lab, On-Line

CMGT 102: Intro the Constructn Industry

Through analysis of relevant case studies, this course examines construction management concepts and principles as applied to contemporary practice and investigates the intersecting roles of construction manager, architect, client, and general contractor. Topics include planning, programming and documentation from pre-construction to project close-out; legal aspects relative to environmental protection, public and worker safety, contract documents, insurance and bonds; labor relations and inspection; project control, total quality management and ethics in construction management.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: Hybrid, Lecture, On-Line

CMGT 104: Intro to Estimating and Schdl

Utilizing pertinent case studies, this course focuses upon the planning and scheduling stages of the building process, with particular emphasis upon reading construction documents and basic estimating principles applied to small-scale, residential and commercial projects. Construction site procedures as well as techniques for estimating unit quantities and costs of materials, labor and equipment, are introduced, and given industry application utilizing building specifications and computer software.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Prerequisites: CMGT 102 [Min Grade: D]

Schedule Type: Lecture, On-Line

CMGT 104AC: Intro to Estimating and Schdl

This course teaches the methodology, procedures, and organizational techniques involved in the preparation of a competitive bid and schedule. Conceptual and detailed estimates are prepared based on real construction documents. The course is structured in laboratory modules that cover the Project Development Process. The intent is to pull the process together in a single course to provide a strong understanding of preliminary design, estimation, scheduling and analysis.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: By Appointment - 3 students, Lecture

CMGT 200: Const Proj Plann & Scheduling

A study and application of the tools and concepts used in planning and controlling construction projects. Students employ the Critical Path Method (CPM) of project scheduling, resource leveling, and time-cost analysis using manual and computer-based solution methods to develop and maintain working project schedule models.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Prerequisites: CMGT 104 [Min Grade: D]

Schedule Type: Lab, Lecture

CMGT 202: Const Cost Estimatr & Budgtn

This experiential course familiarizes students with manual and computer aided techniques of contract document quantity surveys, estimated cost calculations, and the development and maintenance of purchase and management budgets.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Prerequisites: CMGT 104 [Min Grade: D]

Schedule Type: Lab, Lecture, Lecture/Lab

CMGT 204: Behavior of Materials

This course familiarizes students with the mechanical behavior of materials and systems in equilibrium using Newton's laws of motion. Students will examine the principles of force equilibrium, construct free-body diagrams, and model the effect on various structural shapes and materials under load.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Prerequisites: (MATH 103 or MATH 111) and PHYC 101 [Min Grade: D]

Schedule Type: Hybrid, Lecture

CMGT 206: Building Systems

This course introduces students to the foundation, structural, envelope, Mechanical, electrical, plumbing, and automation systems and their interaction in a functioning building facility. Emphasis is placed on value achieved through constructability, performance, and sustainability characteristics.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Prerequisites: CMGT 104 [Min Grade: D]

Schedule Type: Lecture

CMGT 208: Materials & Mthds of Construc

This course is an introduction to the materials, assemblies and methodologies of general construction organized around Construction Specifications Institute division format. Topics include site-work and excavation techniques and proceed through basic building systems in concrete, masonry, wood, plastic and steel along with interior and exterior finishes. Emphasis is placed on achieving design intent through appropriate construction techniques and sequencing. Case studies, site visits, ongoing project examples are an integral part of the course.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Prerequisites:** CMGT 104 [Min Grade: D]**Schedule Type:** By Appointment - 1 student, Lecture**CMGT 208AC: Materials & Mthds of Construc**

This course is an introduction to the materials, assemblies and methodologies of general construction organized around Construction Specifications Institute division format. Topics include site-work and excavation techniques and proceed through basic building systems in concrete, masonry, wood, plastic and steel along with interior and exterior finishes. Emphasis is placed on achieving design intent through appropriate construction techniques and sequencing. Case studies, site visits, ongoing project examples are an integral part of the course. Weekly Blackboard activities will account for 10 hours of work outside of the classroom setting.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** By Appointment - 1 student, Lecture**CMGT 220: Intro to Construction Drawings**

This course introduces the graphical language of construction and design documents. Students will learn to read construction plans and understand the terminology and functions of Computer Aided Design (CAD) and Building Information Modeling (BIM) software applications. Instruction will be through a combination of interactive lecture and lab time.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** By Appointment - 1 student, Lecture**CMGT 220AC: Intro to Construction Drawings**

This course introduces the graphical language of construction and design documents. Students will learn to read construction plans and understand the terminology and functions of Computer Aided Design (CAD) and Building Information Modeling (BIM) software applications. Instruction will be through a combination of interactive lecture and lab time.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** By Appointment - 2 students, Lecture, On-Line**CMGT 300: Constructn Acct/Cost Control**

This course familiarizes students with construction cost accounting systems and reporting formats. Students will examine the sources of cost data and report generation and will evaluate performance based on analysis of data for labor, material, equipment, and subcontract cost. Emphasis is placed on the formulation of management decisions and the ongoing evaluation of their effectiveness.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Prerequisites:** CMGT 102 and ACCT 101 [Min Grade: D]**Schedule Type:** Lecture**CMGT 302: Construction Contract Admin.**

This course familiarizes students with the various forms of contract used in the construction industry and best practices for their administration and management. Through exploration of cases and current events, students will explore contract operation regarding rights, duties, responsibilities, claims management and assignment of risk. Emphasis is placed on the management of contracts as a means for the achievement of overall project success.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Prerequisites:** CMGT 102 [Min Grade: D]**Schedule Type:** Lecture**CMGT 302AC: Construction Contract Admin.**

This course familiarizes students with the various forms of contract used in the construction industry and best practices for their administration and management. Through exploration of cases and current events, students will explore contract operation regarding rights, duties, responsibilities, claims management and assignment of risk. Emphasis is placed on the management of contracts as a means for the achievement of overall project success.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** By Appointment - 3 students, Hybrid, Lecture, On-Line**CMGT 304: Construc Safety & Risk Magmt.**

This course familiarizes students with best practices for risk identification, assessment, and mitigation for construction businesses and projects. Students will examine case examples of construction industry businesses and construction project site conditions, identify and assess specific risks, and formulate management plans to mitigate and manage the risks. Particular emphasis is placed on OSHA compliance and worksite safety management.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Prerequisites:** CMGT 200 and CMGT 202 [Min Grade: D]**Schedule Type:** Lecture**CMGT 306: Construction Site Operations**

This course familiarizes students with methods, procedures, and practices required for the effective management of field operations preparing students to assess construction project sites and prepare comprehensive site management plans. The course explores aspects of site management such as layout, logistics, sustainable practices, administration, and false work in a hands-on collaborative environment.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Prerequisites:** CMGT 200 and CMGT 202 [Min Grade: D]**Schedule Type:** Lecture, Studio**CMGT 308: Construction Safety Lab****Credits:** 1**College:** Jefferson Coll of Architecture & Built Environment**Prerequisites:** CMGT 102 [Min Grade: D]**Schedule Type:** Lab

CMGT 310: Constructn Surveying

This course presents the basic surveying principles and their applications in construction. Students are introduced the use of surveying equipment to achieve horizontal and vertical distance measurement, horizontal and vertical angle measurement, and computation of coordinates. The course includes additional topics like field data collection for site mapping, such as topographic surveys, boundary surveys, feature location, ground survey control, and traverse computations in addition to construction layout practices with the use of digital instruments.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Lab, Lecture, Lecture/Lab**CMGT 398: CMGT Designated Elective****Credits:** 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Lecture**CMGT 401: Codes and Specifications**

The course offers an introduction to building code requirements and their application to the building design process. Students develop an appreciation for how building codes seek to ensure building performance and occupant safety. Emphasis is placed on learning a methodical approach to applying the codes to the design of different structures and occupancies.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Lecture, Lecture/Lab**CMGT 402: Special Topics in Construction**

This course addresses pertinent issues relative to construction. Special issues related to construction will be investigated by individual or groups of students based on a discussion with the instructor. The course is designed to broaden the Construction Management topics to include enhanced research opportunities.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Lecture**CMGT 403: Introduction to BIM**

This course introduces students with the basic concepts of Building Information Modeling (BIM) with practical applications of Autodesk Revit. The sequence will include starting a project, adding basic building elements, modifying elements as needed, and creating a 3D Revit model. Students will be able to get used to the Revit interface and explore how information and building components are integrated in BIM. The course will also introduce utilizing Revit for purposes in addition to modeling, such as estimating. Students will develop the Revit model of an actual building to strengthen their BIM knowledge.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Lecture/Lab, On-Line**CMGT 404: Special Topics in Construction**

This course addresses pertinent issues relative to construction. Special issues related to construction will be investigated by individual or groups of students based on a discussion with the instructor. 3.0 credits; lecture

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** By Appointment - 4 students, Hybrid, Lecture, On-Line**CMGT 410: Heavy Constr Princ & Practice**

This course is intended to provide students with an introduction to the principles and practices employed in heavy/civil infrastructure and marine construction. The course content is presented from a practical perspective focusing on the management of heavy/civil construction projects. The course is designed for construction management majors as well as those majoring in related fields and is intended to provide a broad understanding of heavy construction techniques and contracting.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Lecture**CMGT 450: Construction Mgmt Seminar**

This seminar course is an opportunity for upper-level construction management students to explore emerging trends in the construction industry while integrating the knowledge and skills developed through their previous coursework. Seminar discussions will respond to readings, guest lecturers and project reviews presented by industry partners. The course includes individual and group research projects the results of which are also discussed during seminar meetings. Material and discussions will include topics such as professional practice, integrated project delivery, industryspecific ethical challenges, sustainable practice, and career alternatives. [Writing Intensive]

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Prerequisites:** CMGT 302 and CMGT 300 [Min Grade: D]**Schedule Type:** By Appointment - 1 student, Hybrid, Lecture, On-Line**CMGT 499: Construction Capstone Project**

This course develops a higher level understanding of the construction process by examining the problem solving that begins with conception and progresses through the completion, start-up and maintenance of a project. Utilizing the technical design drawings that students completed in ARCH-324 Visualization: Experimental Modeling and generated through Building Information Modeling (BIM) software, this course provides an opportunity to simulate the progressive stages of a construction project, thereby synthesizing knowledge and skills acquired in previous coursework.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Hybrid, Lab, Lecture

Cont & Prof Studies (CPS)

Cont & Prof Studies (Online) (CPSX)

Cont. Studies Seminar (Online) (CSSX)

CSSX 101: Learning Across the Lifespan

This course provides theoretical bases and practical strategies for lifelong learning. Students will become aware of university resources, as well as the policies and procedures critical to success. Emphasis is placed on critical thinking, study skills, analytical reading, effective writing, reasoning, problem-solving, time management and strategies for college success necessary to support learning in a university environment. Students will analyze their own learning abilities and styles and develop effective practices for learning throughout their lifetime. Students will explore their motivations and the external determinants that affect their educational, personal, and career success. Students will learn the role of active learning in a successful life.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: On-Line

CSSX 200: Foundations of Lifelong Learning

This course provides practical strategies for lifelong learning in the digital age. Students will learn to apply concepts related to change, goal setting, self-directed learning, and academic self-efficacy. The course focuses on thinking creatively and critically, learning to learn, planning time, conducting library research, and writing effectively. Using digital information literacy skills, students will write an argumentative research paper. The course prepares students for the rigors of online, accelerated coursework and increases their confidence that they can be successful.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: On-Line

CSSX 499: Profess Studies Capstone Sem

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: By Appointment - 1 student, By Appointment - 4 students, On-Line

Contemporary Global Issues (CGIS)

CGIS 300: Contemporary Global Issues

Contemporary Global Issues is a writing-intensive course that examines current global social, political and economic trends from multiple competing perspectives, and evaluates their impacts on world societies. Students will complete individual and collaborative projects that explore the intercultural and ethical dimensions of today's most pressing international issues.

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: (WRIT 201 or WRIT 202) and (GDIV 200 or GDIV 221 or GDIV 229 or GDIV 231 or GDIV 233 or GDIV 234 or GDIV 235 or GDIV 236 or GDIV 333 or GCIT 200 or GCIT 210 or GCIT 211 or GCIT 214 or GCIT 215 or GCIT 216 or GCIT 217 or GCIT 218 or GCIT 225 or GER 101 or GER 201 or ITAL 101 or ITAL 201 or ITAL 301 or ITAL 401 or JAPN 101 or JAPN 201 or JAPN 301 or JAPN 401 or SPAN 101 or SPAN 102 or SPAN 201 or SPAN 301 or SPAN 401 or SPAN 202 or SPAN 302 or GCIT 398 or GDIV 398 or GCIT 198 or GDIV 198 or FREN 101 or FREN 201 or FREN 301 or FREN 401 or FREN 102 or FREN 202 or GER 102 or ITAL 102 or ITAL 202 or JAPN 102 or JAPN 202 or SPAN 110 or SPAN 210) [Min Grade: D-]

Schedule Type: Lecture, On-Line

CGIS 398: Transfer Contemp Global Issues

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

Continuing Studies Seminar (CSSE)

CSSE 101: Learning Across the Lifespan

This course provides theoretical bases and practical strategies for lifelong learning. Students will become aware of university resources, as well as the policies and procedures critical to success. Emphasis is placed on critical and creative thinking, study skills, analytical reading, effective writing, reasoning, problem-solving, time management and strategies for college success necessary to support learning in a university environment. Students will analyze their own learning abilities and styles and develop effective practices for learning throughout their lifetime. Students will explore their motivations and the external determinants that affect their educational, personal, and career success. Students will learn the role of active learning in a successful life.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: By Appointment - 3 students, Lecture, On-Line

CSSE 300: Professional Practice Seminar

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: By Appointment - 3 students, By Appointment - 4 students, Lecture

CSSE 400: Internship

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Hybrid

CSSE 401: Internship II**Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Hybrid**CSSE 402: Internship****Credits:** 6**College:** Jefferson College of Health Professions**Schedule Type:** Hybrid**CSSE 499: Profess Studies Capstone Sem****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** By Appointment - 2 students, Lecture, On-Line

Conversational Medical Chinese (CHI)

Creativity & Ldshp Core (ONL) (CLCX)

CLCX 310: Creativity Fnds & Applications

Covers leading creativity theorists and theories, creativity in many domains and fields, and characteristics of creative people, products, and processes; explores tools and techniques for enhancing creative strengths such as creative problem solving (CPS), Kepner-Tregoe Decision Matrix, de Bono's Six Thinking Hats, synerctics, and SCAMPER.

Credits: 3**College:** School of Business**Schedule Type:** On-Line**CLCX 320: Creativity in the Digital Age**

This course will focus on creativity in the digital era and will provide an introduction to artificial intelligence and the future of work. Students will use case studies to learn how to lead successful artificial intelligence initiatives by prioritizing opportunities, building a diverse team of experts and designing solutions to benefit organizations. Students also will learn techniques for decision making in the digital workplace, and will be exposed to the tools that are needed to improve performance and creativity in virtual teams.

Credits: 3**College:** School of Business**Prerequisites:** CLCX 310 [Min Grade: D]**Schedule Type:** On-Line**CLCX 330: Project Management**

Provides foundational and practical knowledge of project management principles and techniques. Identifies tools and processes for managing projects using both Waterfall and Agile methodologies.

Credits: 3**College:** School of Business**Schedule Type:** On-Line**CLCX 340: Leading Diverse Organizations**

Develops understanding of everyday bias and different levels (individual, interpersonal, and organization) of diversity, inclusion, equity, cultural competence and belonging with the goal of building awareness and skills for leaders to lead effectively in a multi-cultural world.

Credits: 3**College:** School of Business**Schedule Type:** On-Line**CLCX 350: Creative Leadership**

This course presents leadership as a powerful force for transforming change. Topics include the differences between leadership and management, leadership metaphors, and the history of leadership studies with a focus on visionary, ethical, and creative leadership. Presents key characteristics of creative people, cognitive and affective skills needed to lead change via creative problem solving, how to lead people with different creativity styles, and how to build a climate that is conducive to creativity.

Credits: 3**College:** School of Business**Schedule Type:** On-Line**CLCX 360: Leadership in the Digital Age**

Provides foundational knowledge, insights, and perspectives on the digital age including implications for leaders who are now responsible for using digital technologies (such as artificial intelligence [AI], Internet of Things [IoT], virtual reality/augmented reality [VR/AR]) to create new or modify existing products and services to meet customer expectations. This course identifies the tools, techniques, and processes leaders use to successfully navigate the challenges and opportunities of business transformation in the digital age.

Credits: 3**College:** School of Business**Schedule Type:** On-Line

Creativity & Leadership Core (CLC)

CLC 310: Creativity Fnds & Applications

Covers leading creativity theorists and theories, creativity in many domains and fields, and characteristics of creative people, products, and processes; explores tools and techniques for enhancing creative strengths such as creative problem solving (CPS), Kepner-Tregoe Decision Matrix, de Bono's Six Thinking Hats, synerctics, and SCAMPER.

Credits: 3**College:** School of Business**Schedule Type:** By Appointment - 3 students, Lecture, On-Line**CLC 320: Creativity in the Digital Age**

This course will focus on creativity in the digital era and will provide an introduction to artificial intelligence and the future of work. Students will use case studies to learn how to lead successful artificial intelligence initiatives by prioritizing opportunities, building a diverse team of experts and designing solutions to benefit organizations. Students also will learn techniques for decision making in the digital workplace, and will be exposed to the tools that are needed to improve performance and creativity in virtual teams.

Credits: 3**College:** School of Business**Prerequisites:** CLC 310 [Min Grade: D]**Schedule Type:** Lecture, On-Line**CLC 330: Project Management**

Provides foundational and practical knowledge of project management principles and techniques. Identifies tools and processes for managing projects using both Waterfall and Agile methodologies.

Credits: 3**College:** School of Business**Schedule Type:** By Appointment - 4 students, By Appointment - 5 students, Hybrid, Lecture, On-Line

CLC 340: Leading Diverse Organizations

Develops understanding of everyday bias and different levels (individual, interpersonal, and organization) of diversity, inclusion, equity, cultural competence and belonging with the goal of building awareness and skills for leaders to lead effectively in a multi-cultural world.

Credits: 3**College:** School of Business**Schedule Type:** By Appointment - 1 student, By Appointment - 2 students, By Appointment - 3 students, Hybrid, Lecture, Lecture/On-Line, On-Line**CLC 350: Creative Leadership**

This course presents leadership as a powerful force for transforming change. Topics include the differences between leadership and management, leadership metaphors, and the history of leadership studies with a focus on visionary, ethical, and creative leadership. Presents key characteristics of creative people, cognitive and affective skills needed to lead change via creative problem solving, how to lead people with different creativity styles, and how to build a climate that is conducive to creativity.

Credits: 3**College:** School of Business**Schedule Type:** Lecture, On-Line**CLC 360: Leadership in the Digital Age**

Provides foundational knowledge, insights, and perspectives on the digital age including implications for leaders who are now responsible for using digital technologies (such as artificial intelligence [AI], Internet of Things [IoT], virtual reality/augmented reality [VR/AR]) to create new or modify existing products and services to meet customer expectations. This course identifies the tools, techniques, and processes leaders use to successfully navigate the challenges and opportunities of business transformation in the digital age.

Credits: 3**College:** School of Business**Schedule Type:** Lecture, Lecture/On-Line, On-Line

Criminal Justice (CRJ)

CRJ 309: Police Admin & Management

The student is introduced to the basics of administering and managing law enforcement professionals. The focus is on particular issues faced in managing police officers-federal, state, or local. The course addresses relations with non-governmental community leaders. Budgeting and planning are also covered.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Hybrid, Lecture, On-Line

Criminal Justice (Online) (CRJX)

CRJX 309: Police Admin & Management

The student is introduced to the basics of administering and managing law enforcement professionals. The focus is on particular issues faced in managing police officers-federal, state, or local. The course addresses relations with non-governmental community leaders. Budgeting and planning are also covered.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** By Appointment - 1 student, By Appointment - 2 students, Online By Appointment 8 Week, On-Line

Cytogenetic Technology (CG)

CG 301: Medical Genetics**Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**CG 302: Cytogenetic Techniques****Credits:** 4**College:** Jefferson College of Life Sciences**Prerequisites:** CG 301**Schedule Type:** Lecture**CG 311: Medical Genetics Lab****Credits:** 1**College:** Jefferson College of Health Professions**Prerequisites:** CG 302**Schedule Type:** Lab**CG 401: Advanced Cytogenetics****Credits:** 3**College:** Jefferson College of Life Sciences**Prerequisites:** CG 301**Schedule Type:** Lecture**CG 402: Cytogenics Lab Practicum****Credits:** 4**College:** Jefferson College of Health Professions**Prerequisites:** CG 302**Schedule Type:** Clinical, Lab**CG 403: Prob Solving in Med Gen****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**CG 404: Adv Cytogenetic Problems****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**CG 411: Cytogenetics Clin Prac****Credits:** 4,12**College:** Jefferson College of Health Professions**Schedule Type:** Clinical**CG 412: Cytogenetics Clin Prac I****Credits:** 4**College:** Jefferson College of Health Professions**Prerequisites:** CG 402**Schedule Type:** Clinical**CG 413: Cytogenetic Clin Prac II****Credits:** 4**College:** Jefferson College of Health Professions**Prerequisites:** CG 412**Schedule Type:** Clinical**CG 414: Cytogenetic Clin Prc III****Credits:** 4**College:** Jefferson College of Health Professions**Prerequisites:** CG 413**Schedule Type:** Clinical

CG 415: Cytogenetic Clin Prac IV

Credits: 4

College: Jefferson College of Health Professions

Prerequisites: CG 414

Schedule Type: Clinical

Cytogenetic Technology (CTG)

CTG 301: Medical Genetics

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

CTG 302: Cytogenetics Techniques

Credits: 4

College: Jefferson College of Health Professions

Schedule Type: Lab

CTG 303: Problem Solving/Genetics

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture

CTG 311: Medical Genetics Laboratory

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: Lab

CTG 401: Advanced Cytogenetics

Credits: 2

College: Jefferson College of Health Professions

Prerequisites: CTG 301

Schedule Type: Lecture

CTG 402: Cytogenetics Lab Practicum

Credits: 4

College: Jefferson College of Health Professions

Prerequisites: CTG 302

Schedule Type: Clinical, Lab

CTG 403: Prob Solving in Med Gen

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture

CTG 411: Cytogenetics Clinical Practicum

Credits: 4,12

College: Jefferson College of Health Professions

Prerequisites: CTG 402

Schedule Type: Clinical

CTG 412: Cytogenetics Clin Prac I

Credits: 8

College: Jefferson College of Health Professions

Prerequisites: CTG 402

Schedule Type: Clinical

CTG 413: Cytogenetics Clinical Prac II

Credits: 8

College: Jefferson College of Health Professions

Prerequisites: CTG 412

Schedule Type: Clinical

Cytotechnology (CT)

CT 301: Principles of Cell Analysis

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lab, Lecture, Lecture/Lab

CT 302: Cytoprep Techniques

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: Lab, Lecture/Lab

CT 303: Histo & Elec Micros Tech

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lab, Lecture, Lecture/Lab

CT 304: General Histology

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture

CT 307: Cellular & Molecular Lab Techn

Credits: 4

College: Jefferson College of Health Professions

Schedule Type: Lecture/Lab

CT 310: Cyto&Surg Pathology Techniques

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lab, Lecture, Lecture/Lab

CT 311: Cytopathology I

Credits: 5

College: Jefferson College of Health Professions

Prerequisites: CT 301

Schedule Type: Lecture

CT 312: Cytopathology I Laboratory

Credits: 3.5

College: Jefferson College of Health Professions

Prerequisites: CT 301

Schedule Type: Lab

CT 315: Cytopathology II

Credits: 5

College: Jefferson College of Health Professions

Prerequisites: CT 311 and CT 312

Schedule Type: Lecture/Lab

CT 317: Cytopathology III

Credits: 5.5

College: Jefferson College of Health Professions

Prerequisites: CT 311 and CT 312

Schedule Type: Lecture, Lecture/Lab

CT 319: Nongyn Cyto/Histocor III

Credits: 4

College: Jefferson College of Health Professions

Prerequisites: CT 315 and CT 317

Schedule Type: Lecture, Lecture/Lab

CT 325: CellularMolecular&ImmunoDiagno

Credits: 3

College: Jefferson College of Health Professions

Prerequisites: CT 311 and CT 312

Schedule Type: Lab, Lecture, Lecture/Lab

CT 334: Female Genital Tract Lecture**Credits:** 4**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**CT 335: Female Genital Tract Lab****Credits:** 4**College:** Jefferson College of Health Professions**Schedule Type:** Lab**CT 340: Respiratory Tract Lecture****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**CT 341: Respiratory Tract Lab****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lab**CT 350: Urine and Breast Lecture****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**CT 351: Urine and Breast Lab****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Lab**CT 370: Gastrointestinal Tract Lecture****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**CT 371: Gastrointestinal Tract Lab****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Lab**CT 375: Cytotechnology Seminar****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Hybrid, Lab, Lecture, Lecture/Lab, On-Line**CT 382: Diagnostic Lab I****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Lab**CT 383: Diagnostic Lab II****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Lab**CT 403: Histopathology****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Lab**CT 412: Cytotechnology Practicum I****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Practicum**CT 413: Cytotechnology Practicum II****Credits:** 3**College:** Jefferson College of Health Professions**Prerequisites:** CT 325**Schedule Type:** Clinical, Lab, Lecture/Lab, Practicum**CT 414: Cytotechnology Practicum III****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Practicum**CT 415: Cytotechnology Practicum IV****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Practicum**CT 416: Comprehensive Exam****Credits:** 0**College:** Jefferson College of Health Professions**Schedule Type:** Exam, On-Line**CT 421: Clinical Practicum I****Credits:** 8**College:** Jefferson College of Health Professions**Schedule Type:** Clinical**CT 422: Clinical Practicum II****Credits:** 8**College:** Jefferson College of Health Professions**Schedule Type:** Clinical**CT 425: Cytotech Practicum IV****Credits:** 4**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Practicum**CT 431: Clinical Practicum III****Credits:** 8**College:** Jefferson College of Health Professions**Schedule Type:** Clinical**CT 432: Clinical Practicum I****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Clinical**CT 433: Clinical Practicum II****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Clinical**CT 434: Clinical Practicum III****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Clinical**CT 435: Clinical Practicum IV****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Clinical**CT 440: Pathology Lecture****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**CT 441: Pathology Lab****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Lab**CT 455: Senior Cytology Seminar****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Seminar

CT 460: Effusions Lecture**Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**CT 461: Effusions Lab****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Lab**CT 492: Senior Cytology Seminar****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Seminar**CT 493: Advanced Diagnostic Cytology****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**CT 495: Applied Cytopathology****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**CT 499: Independent Study****Credits:** 1-6**College:** Jefferson College of Health Professions**Schedule Type:** Independent Study

Cytotechnology Post Certificat (CTP)

CTP 431: Clinical Practicum I**Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Clinical**CTP 432: Clinical Practicum II****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Clinical**CTP 433: Clinical Practicum III****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Clinical**CTP 434: Clinical Practicum IV****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Clinical**CTP 435: Clinical Practicum IV****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Clinical

Debating Global Issues (DBTG)

DBTG 398: TR Debating Global Issues**Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture

Debating US Issues (DBTU)

DBTU 114: Debating U.S. Issues

This is intended as a first-year course, to be taken in either semester.

It is the first Touchstone course, where students will learn about the Hallmarks Folio process and review their first artifacts and reflections.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**DBTU 198: Transfer Debating U.S. Issues****Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture

DEC Frameworks (DECF)

DECF 102: Finding & Shaping Opportunity

This course introduces principles of design thinking as a key element of innovation. Students will learn how parts of traditional design process can be used to reveal opportunity, and how to shape that opportunity by critically and creatively evaluating its components as part of a larger system. As a culminating assignment, students will work collaboratively with peers from other disciplines to create real-world value in an economic, social, and environmental context by innovating a new model for business that is both desirable and viable. This course is designated as creativity intensive. This course replaces DECP-101 Integrative Design Process, DECF-200 Business Models, and DECG-200 Innovation Essentials, and should NOT be taken for credit by a current student who has previously completed ANY of those three courses.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture**DECF 200: Business Models****Credits:** 3**College:** School of Design & Engineering**Schedule Type:** Lecture**DECF 200X: Business Models****Credits:** 3**College:** School of Design & Engineering**Schedule Type:** Lecture/On-Line

DEC Generic Courses (DECG)

DECG 200: Innovation Essentials**Credits:** 3**College:** School of Design & Engineering**Schedule Type:** Lecture, Lecture/Online/Studio, On-Line, Studio**DECG 230: Dgn Proc Through Hist & Cultur****Credits:** 3**College:** School of Design & Engineering**Schedule Type:** Study Abroad**DECG 480: Interdisc Integrative Project****Credits:** 3**College:** School of Design & Engineering**Schedule Type:** By Appointment - 1 student, Lecture, Lecture/Studio Combination, Studio

DEC Methods (DECM)

DECM 300: Research Methods

This writing intensive course explores a range of research tools to analyze human belief, behavior, and cultural practices, and the systems which they drive and are affected by to inform planning and critical inquiry. Students will learn to formulate appropriate research strategies and questions for conducting quantitative and qualitative research to explore a variety of approaches that address contemporary issues around all aspects of sustainability (economic, social, environmental, technical). Students will consider ethical, empathetic, and contextual sensitivities at all stages of the research process, from planning through to analysis and interpretation and will convey their findings through multi-modal means of communication as appropriate to the content and purpose of their research. Prerequisite: 2 groups WRTG-211 WRTG-215 or WRTG217;SOC 2XX or WRIT-201 or WRIT 202 Subject from GDIV, GCIT 3.000 Credit hours

Credits: 3

College: School of Design & Engineering

Prerequisites: (WRIT 211 or WRIT 215 or WRIT 217 or WRIT 201 or WRIT 202) and (GDIV 200 or GDIV 221 or GDIV 229 or GDIV 231 or GDIV 233 or GDIV 234 or GDIV 235 or GDIV 236 or GDIV 333 or GCIT 200 or GCIT 210 or GCIT 211 or GCIT 214 or GCIT 215 or GCIT 216 or GCIT 217 or GCIT 218 or GCIT 225 or FREN 101 or FREN 201 or FREN 301 or FREN 401 or GER 101 or GER 201 or ITAL 101 or ITAL 201 or ITAL 301 or ITAL 401 or JAPN 101 or JAPN 201 or JAPN 301 or JAPN 401 or SPAN 101 or SPAN 102 or SPAN 201 or SPAN 301 or SPAN 401 or SPAN 202 or SPAN 302 or GCIT 208 or GDIV 203 or SOSC 201 or SOSC 204 or SOSC 208 or SOSC 211 or SOSC 225 or GDIV 198 or GCIT 398 or JSLA 370 or FREN 102 or FREN 202 or GER 102 or ITAL 102 or ITAL 202 or JAPN 102 or JAPN 202 or SPAN 110 or SPAN 210) [Min Grade: D-]

Schedule Type: By Appointment - 1 student, By Appointment, Lecture

DECM 300X: Ethnographic Research Methods

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture/On-Line

DEC Process (DECP)

DECP 101: Integrative Design Process

Design thinking is a shared process and key component of innovation for all fields within the College of Design, Engineering and Commerce. In this course, students will develop and refine abilities to construct, analyze and use the process of designing within an interdisciplinary, team based environment. Integrative Design Process is a part of the DEC core and is a mandatory course for all students in the College of Design, Engineering and Commerce. This course also fulfills the Arts and Cultures requirement of the College Studies Program for students enrolled in the majors in the School of Business Administration.

Credits: 3

College: School of Design & Engineering

Schedule Type: By Appointment - 2 students, Lecture, Lecture/Studio Combination, Studio

DECP 101X: Integrative Design Process

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture/On-Line, Online Studio

DEC Systems (DECS)

DECS 2XX: DECSYS Placeholder

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture

DECS 202: Materials Selection

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture

DECS 206: Biology for Design

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture

DECS 208X: Sustainability & Eco-Innovatn

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture/On-Line

DECS 209: Sys Thinking & Sustainability

The field of sustainability will be surveyed using the lens of Systems Thinking. Students will be introduced to the rate and scale of environmental impacts resulting from climate change, our industrial food system, and waste accumulation in linear models of production, with case studies considered from multiple perspectives and disciplines. Students will develop systems models to identify key feedbacks and interactions among factors. A final team-based inquiry-driven project will involve analysis of a focal area of choice, to characterize sustainability challenges and opportunities for focused interventions, with consideration of social equity dimensions and model limitations.

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture

Dental Hygiene (DH)

DH 314: Statistics & Research Methods

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

DH 422: Manage Change in Dental Hygien

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

Design Foundations (DSGF)

DSGF 103: Design Foundations I

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture, Studio

DSGF 203: Design Foundations II

Credits: 3

College: School of Design & Engineering

Prerequisites: DSGF 103 or VDES 101 [Min Grade: D]

Schedule Type: Lecture, Studio

DSGF 303: Design Foundations III

Credits: 3

College: School of Design & Engineering

Prerequisites: DSGF 203 [Min Grade: D]

Schedule Type: Lecture, Studio

DSGF 423: Design Concepts

Credits: 3

College: School of Design & Engineering

Prerequisites: FASM 101 [Min Grade: D]

Schedule Type: Lecture, Lecture/Studio Combination, Studio

Design, Engr. & Commerce (DEC)

DEC 398: DEC Elective Transfer Credit

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture

Diag Imag Computed Tomography (DIC)

DIC 400: CT Physics & Instrumentation

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

DIC 401: Cross Sectional Anatomy I

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

DIC 402: Cross Sec Anatomy II

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

DIC 411: CT Patient Care and Safety

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

DIC 412: Clin Computed Tomography I

Credits: 3

College: Jefferson College of Health Professions

Prerequisites: DI 411

Schedule Type: Clinical

DIC 413: Clinical CT II

Credits: 3

College: Jefferson College of Health Professions

Prerequisites: DIC 412

Schedule Type: Clinical

DIC 414: Clinical CT III

Credits: 4

College: Jefferson College of Health Professions

Prerequisites: DIC 413

Schedule Type: Clinical

DIC 431: CT Procedures I

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

DIC 432: CT Procedures II

Credits: 3

College: Jefferson College of Health Professions

Prerequisites: DIC 431

Schedule Type: Lecture

DIC 451: Digital Imaging

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture

DIC 473: Computed Tomography Seminar

Credits: 2

College: Jefferson College of Health Professions

Prerequisites: DI 411 and DIC 400 and DIC 401 and DIC 431

Corequisites: DI 402, DI 451, DIC 432, DIC 433

Schedule Type: Lecture

DIC 499: Computed Tomogr Indepen Study

Credits: 1-3

College: Jefferson College of Health Professions

Schedule Type: Lecture

Diag Imag Magnetic Resonance (DIM)

DIM 400: MRI Physics & Instrumentation

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

DIM 401: Cross Sectional Anatomy I

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

DIM 402: Cross Sec Anatomy II

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

DIM 411: MRI Patient Care and Safety

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

DIM 412: Clin Magnetic Reson Imag I

Credits: 3

College: Jefferson College of Health Professions

Corequisites: DI 411

Schedule Type: Clinical

DIM 413: Clinical MRI II

Credits: 3

College: Jefferson College of Health Professions

Prerequisites: DIM 412

Schedule Type: Clinical

DIM 414: Clinical MRI III

Credits: 4

College: Jefferson College of Health Professions

Prerequisites: DIM 413

Schedule Type: Clinical

DIM 431: MRI Procedures I**Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**DIM 432: MRI Procedures II****Credits:** 3**College:** Jefferson College of Health Professions**Prerequisites:** DIM 431**Schedule Type:** Lecture**DIM 451: Digital Imaging****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**DIM 473: MRI Seminar****Credits:** 2**College:** Jefferson College of Health Professions**Prerequisites:** DI 401 and DI 411 and DIM 400 and DIM 431**Corequisites:** DI 402, DI 451, DIM 432, DIM 433**Schedule Type:** Lecture**DIM 499: Magnetic Resonance Independent Study****Credits:** 1-4**College:** Jefferson College of Health Professions**Schedule Type:** Lecture

Diag Imag Nuclear Medicine (DIN)

DIN 400: Medical Nuclear Physics**Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**DIN 401: Cross Sectional Anatomy I****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**DIN 402: Cross Sectional Anatomy II****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**DIN 410: Intro to Radiobiology****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**DIN 411: NM Patient Care and Safety****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**DIN 420: Radiation Protection****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**DIN 425: Nuclear Med Chemistry****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**DIN 430: Nuclear Med Instrumentation****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**DIN 450: Nuclear Med Procedures I****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**DIN 451: Nuclear Med Procedures II****Credits:** 3**College:** Jefferson College of Health Professions**Prerequisites:** DIN 450**Schedule Type:** Lecture**DIN 452: Nuclear Med Procedures III****Credits:** 3**College:** Jefferson College of Health Professions**Prerequisites:** DIN 451**Schedule Type:** Lecture**DIN 460: Radiochemistry & Radiopharm****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**DIN 470: Clinical Nuclear Med I****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Clinical**DIN 471: Clinical Nuclear Med II****Credits:** 3**College:** Jefferson College of Health Professions**Prerequisites:** DIN 470**Schedule Type:** Clinical**DIN 472: Clinical Nuclear Med III****Credits:** 4**College:** Jefferson College of Health Professions**Prerequisites:** DIN 471**Schedule Type:** Clinical**DIN 499: Nuclear Med Review Seminar****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Independent Study

Diagnostic Imaging (DI)

DI 321: Intro to Radiologic Science**Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**DI 401: Cross Sectional Anatomy CT/MRI****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**DI 402: Cross Sectional Anatomy II****Credits:** 3**College:** Jefferson College of Health Professions**Prerequisites:** DI 401**Schedule Type:** Lecture

DI 411: Pat.Care/Safety CT/MRI
Credits: 3
College: Jefferson College of Health Professions
Schedule Type: Lecture

DI 451: Digital Imaging CT/MRI
Credits: 2
College: Jefferson College of Health Professions
Schedule Type: Lecture

DI 481: Contrast Media
Credits: 1
College: Jefferson College of Health Professions
Schedule Type: Lecture

Diagnostic Imaging Adv Plc (DIA)

DIA 409: Computers in Radiology
Credits: 1
College: Jefferson College of Health Professions
Schedule Type: Lecture

DIA 499: Independent Study
Credits: 1-4
College: Jefferson College of Health Professions
Schedule Type: Independent Study

Diagnostic Imaging Cardiovasc (DIV)

DIV 301: Intro to Cardiovas Tech
Credits: 3
College: Jefferson College of Health Professions
Schedule Type: Lecture

DIV 302: Noninvasiv Testing Prin & Proc
Credits: 2
College: Jefferson College of Health Professions
Schedule Type: Lecture

DIV 303: Clinical Noninvasive Testing
Credits: 2
College: Jefferson College of Health Professions
Schedule Type: Clinical

DIV 311: Cardiovascular Physiology
Credits: 2
College: Jefferson College of Health Professions
Schedule Type: Lecture

DIV 312: Cardiovascular Pathophysiology
Credits: 2
College: Jefferson College of Health Professions
Prerequisites: DIV 311
Schedule Type: Lecture

DIV 321: Cardiovascular Pharmacology
Credits: 2
College: Jefferson College of Health Professions
Schedule Type: Lecture

DIV 331: Cardiac Procedures I
Credits: 3
College: Jefferson College of Health Professions
Schedule Type: Lecture/Lab

DIV 332: Cardiac Procedures II
Credits: 3
College: Jefferson College of Health Professions
Prerequisites: DIV 331
Schedule Type: Lecture

DIV 335: Vascular Procedures I
Credits: 3
College: Jefferson College of Health Professions
Schedule Type: Lecture

DIV 336: Vascular Procedures II
Credits: 3
College: Jefferson College of Health Professions
Prerequisites: DIV 335
Schedule Type: Lecture/Lab

DIV 338: Invasive Procedures I
Credits: 3
College: Jefferson College of Health Professions
Schedule Type: Lecture

DIV 339: Invasive Procedures II
Credits: 3
College: Jefferson College of Health Professions
Prerequisites: DIV 338
Schedule Type: Lecture/Lab

DIV 342: Cardiac Instrumentation
Credits: 1
College: Jefferson College of Health Professions
Schedule Type: Lecture

DIV 344: Vascular Instrumentation
Credits: 1
College: Jefferson College of Health Professions
Schedule Type: Lecture

DIV 346: Radiation Physics and Safety
Credits: 1
College: Jefferson College of Health Professions
Schedule Type: Lecture

DIV 347: Invasive Instrumentation
Credits: 1
College: Jefferson College of Health Professions
Schedule Type: Lecture

DIV 351: Cardiac Principles I
Credits: 3
College: Jefferson College of Health Professions
Schedule Type: Lecture

DIV 352: Cardiac Principles II
Credits: 3
College: Jefferson College of Health Professions
Prerequisites: DIV 351
Schedule Type: Lecture

DIV 353: Vascular Principles I
Credits: 3
College: Jefferson College of Health Professions
Schedule Type: Lecture

DIV 354: Vascular Principles II
Credits: 3
College: Jefferson College of Health Professions
Prerequisites: DIV 353
Schedule Type: Lecture

DIV 357: Invasive Principles I**Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**DIV 358: Invasive Principles II****Credits:** 3**College:** Jefferson College of Health Professions**Prerequisites:** DIV 357**Schedule Type:** Clinical**DIV 411: Clinical Cardiac I****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Clinical**DIV 412: Clinical Cardiac II****Credits:** 3**College:** Jefferson College of Health Professions**Prerequisites:** DIV 411**Schedule Type:** Clinical**DIV 413: Clinical Cardiac III****Credits:** 4**College:** Jefferson College of Health Professions**Prerequisites:** DIV 412**Schedule Type:** Clinical**DIV 421: Clinical Vascular I****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Clinical**DIV 422: Clinical Vascular II****Credits:** 3**College:** Jefferson College of Health Professions**Prerequisites:** DIV 421**Schedule Type:** Clinical**DIV 423: Clinical Vascular III****Credits:** 4**College:** Jefferson College of Health Professions**Prerequisites:** DIV 422**Schedule Type:** Clinical**DIV 431: Clinical Invasive I****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Clinical**DIV 432: Clinical Invasive II****Credits:** 3**College:** Jefferson College of Health Professions**Prerequisites:** DIV 431**Schedule Type:** Clinical**DIV 433: Clinical Invasive III****Credits:** 4**College:** Jefferson College of Health Professions**Prerequisites:** DIV 432**Schedule Type:** Clinical**DIV 481: Cardiac Review Seminar****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**DIV 482: Vascular Review Seminar****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**DIV 483: Invasive Review Seminar****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Seminar**DIV 491: Spec Topics in Cardiac Sonogra****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**DIV 493: Spec Topics in Vascular Tech****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**DIV 495: Special Topics in Invasive****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Seminar**DIV 499: Independent Study****Credits:** 1-4**College:** Jefferson College of Health Professions**Schedule Type:** Independent Study

Diagnostic Imaging Med Sonog (DIS)

DIS 400: Ultrasound Physics I**Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**DIS 401: Sonograph Cross Sectional Anat****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**DIS 402: Abdominal Sonography I****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**DIS 403: Ultrasound Physics II****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**DIS 404: Pelvic Sonography****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**DIS 405: Obstetrical Sonography****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**DIS 407: Vascular Techniques****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture

DIS 408: Sonography Review Seminar
Credits: 2
College: Jefferson College of Health Professions
Schedule Type: Lecture

DIS 409: Echocardiography
Credits: 3
College: Jefferson College of Health Professions
Schedule Type: Lecture

DIS 411: Intro to Diag Med Sonography
Credits: 2
College: Jefferson College of Health Professions
Schedule Type: Lecture/Lab

DIS 412: Clinical Sonography I
Credits: 2
College: Jefferson College of Health Professions
Schedule Type: Clinical, Lab

DIS 413: Clinical Sonography II
Credits: 3
College: Jefferson College of Health Professions
Prerequisites: DIS 412
Schedule Type: Clinical

DIS 413L: Clinical Sonography II Lab
Credits: 0
College: Jefferson College of Health Professions
Schedule Type: Clinical

DIS 414: Clinical Sonography III
Credits: 4
College: Jefferson College of Health Professions
Prerequisites: DIS 413
Schedule Type: Clinical

DIS 415: Sonography Procedures I
Credits: 3
College: Jefferson College of Health Professions
Schedule Type: Lecture/Lab

DIS 416: High Resolution Sonography
Credits: 3
College: Jefferson College of Health Professions
Schedule Type: Lecture

DIS 417: Sonography Procedures II
Credits: 3
College: Jefferson College of Health Professions
Prerequisites: DIS 415
Schedule Type: Lecture

DIS 418: Clinical Sonography IV
Credits: 3
College: Jefferson College of Health Professions
Schedule Type: Clinical

DIS 419: Clinical Sonography V
Credits: 4
College: Jefferson College of Health Professions
Schedule Type: Clinical

DIS 420: Sonography Instrumentation
Credits: 1
College: Jefferson College of Health Professions
Schedule Type: Lecture/Lab

DIS 421: Clinical Sonography VI
Credits: 4
College: Jefferson College of Health Professions
Schedule Type: Clinical

DIS 422: Abdominal Sonography II
Credits: 2
College: Jefferson College of Health Professions
Prerequisites: DIS 402
Schedule Type: Lecture

DIS 498: Spec Topics in Gen Sonography
Credits: 2
College: Jefferson College of Health Professions
Schedule Type: Lecture/Lab

DIS 499: Sonography Independent Study
Credits: 1-4
College: Jefferson College of Health Professions
Schedule Type: Independent Study

Diagnostic Imaging Radiography (DIR)

DIR 313: Radiobiology and Health Physic
Credits: 2
College: Jefferson College of Health Professions
Schedule Type: Lecture

DIR 331: Radiographic Proced I
Credits: 3
College: Jefferson College of Health Professions
Schedule Type: Lab, Lecture

DIR 332: Procedures II
Credits: 3
College: Jefferson College of Health Professions
Schedule Type: Lab, Lecture

DIR 333: Special Procedures
Credits: 1
College: Jefferson College of Health Professions
Schedule Type: Lecture

DIR 341: Radiography Physics&Instrum I
Credits: 3
College: Jefferson College of Health Professions
Schedule Type: Lecture

DIR 342: Radiography Physics&Instru II
Credits: 3
College: Jefferson College of Health Professions
Prerequisites: DIR 341
Schedule Type: Lecture

DIR 352: Imaging Principles II
Credits: 3
College: Jefferson College of Health Professions
Schedule Type: Lab, Lecture

DIR 353: Radiographic Imaging Principls
Credits: 3
College: Jefferson College of Health Professions
Schedule Type: Lecture

DIR 361: Radiographic Anatomy**Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**DIR 371: Clinical Radiography I****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Clinical**DIR 372: Clinical Radiography II****Credits:** 3**College:** Jefferson College of Health Professions**Prerequisites:** DIR 371**Schedule Type:** Clinical**DIR 373: Clinical Radiography III****Credits:** 4**College:** Jefferson College of Health Professions**Prerequisites:** DIR 372**Schedule Type:** Clinical**DIR 374: Clin Ed IV (Senior MC)****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Clinical**DIR 404: Radiographic Image Analysis Sm****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**DIR 410: Spec Appl & Computers/Radiogra****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**DIR 412: Radiographic Pathology****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**DIR 422: Diagnostic Imaging V****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**DIR 471: Radiography Review Seminar****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**DIR 499: Radiography Independent Study****Credits:** 1-4**College:** Jefferson College of Health Professions**Schedule Type:** Independent Study

Digital Design (DIGD)

DIGD 3XX: Web Design Elective**Credits:** 3**College:** School of Design & Engineering**Schedule Type:** Lecture, Studio**DIGD 103: Principles of User Experience**

The purpose of this new course is to create an essential understanding of the User Experience (UX) design process which is a key component to becoming an Interactive Designer. This course, which is the first core-course in the newly revised Interactive Design & Development program will serve to give students an understanding of design workflow, developing sitemaps & navigation, information architecture, storyboarding, wireframes, prototyping, feature definition, documentation, and user-testing. This skill set is a fundamental requirement which will continue to be reinforced and utilized throughout all of their courses in the program.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture, Studio**DIGD 200: Fundamentals of Web Programming**

The purpose of this new course is to create an essential understanding of the HTML and CSS markup languages which is a key component to becoming an Interactive Designer. This course, which is a sophomore level core course in the newly revised Interactive Design & Development program will serve to give students a comprehensive understanding of how to produce functional web pages using HTML and CSS. Additionally, they will be instructed on how to debug their code, validate code, and cross-browser/device check for integrity across all platforms. These skills are a fundamental requirement which will continue to be reinforced and utilized throughout all of their courses in the program.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture, Lecture/Online/Studio, Lecture/Studio Combination, Studio**DIGD 206: Found in Web Design & Strategy**

This course will be an exploration into the design process and techniques for creating interactive experiences. This will be first step in learning to think and work as a web designer. We will cover a basic understanding of information architecture, usability, front end programming logic, and design literacy. We will also discuss the principles of raster and vector electronic imaging as a means to provide a solid foundation needed to succeed in the digital design field.

Credits: 3**College:** School of Design & Engineering**Prerequisites:** ARFD 102 or DSGF 203 or GRPH 102 [Min Grade: D]**Schedule Type:** Lecture, Lecture/Studio Combination, Studio**DIGD 305: Theory of Electr Comm Sem I**

(writing intensive) This seminar course provides students with a theoretical understanding of the role of the digital designer within the constantly evolving electronic marketplace. Issues of e-commerce, digital communication, electronic ethics and professional practice will be discussed. Special focus will be placed on how our existing culture has been, and is currently being, revolutionized by the information explosion.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture

DIGD 307: Advanced Web Design & Strategy

This course exposes students to conceptual and technical aspects of Web design. Information architecture, semiotics, storyboarding and site management are taught; in addition to learning technical skills in Web production software and HTML. Additional areas of focus include typography, color theory, composition and motion graphics for the Web. The final project requires the publication of a Web site that pushes the boundaries of traditional interactive media.

Credits: 3

College: School of Design & Engineering

Prerequisites: DIGD 206 [Min Grade: C]

Schedule Type: Lecture, Lecture/Studio Combination, Studio

DIGD 314: User Interface Design

This course provides students with a general introduction to the theory and practice of creating 2D graphical user interfaces. Students will explore the various components of user interface design for a wide range of basic interaction devices available. Emphasis will be put on usability and design standards. The course will cover effective layouts, best practices for navigation, search, registration/account management, and shopping carts. The final project requires a complete design series of a web-based or mobile application of the student's choosing.

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture, Studio

DIGD 316: Web Performance & Optimizatr

Creating effective user experience means having a comprehensive understanding of performance and optimization for internet based technologies. Students will learn how to effectively maintain their own webserver, address performance related issues, optimize delivery of web-based content, debug scripting errors, and optimize delivery across desktop, tablet, and mobile platforms including cross-browser testing.

Credits: 3

College: School of Design & Engineering

Schedule Type: By Appointment, Studio

DIGD 318: Media Production

This course exposes students to principles of basic digital photography, audio editing, and digital video design and production. Students will become versed in non-linear, video-editing software as a means to create effective digital media presentations. A series of projects develop essential skill sets such as storyboarding, basic photography & composition, audio/video capture, and editing

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture, Lecture/Studio Combination, On-Line, Studio

DIGD 320: Javascript Programming

This course will explore the ways in which JavaScript can be applied to websites to develop greater interaction with users, aid in design, and create better user experiences overall. Students will work with libraries like jQuery as well as many other plugins and extensions that aid in the development of web applications and websites. This will include using third party API's (Application Programming Interfaces) to retrieve and manipulate JSON objects to help users interpret data. This course will consist of several small projects leading to a final project at the end of the semester. Prerequisite: DIGD-307

Credits: 3

College: School of Design & Engineering

Schedule Type: By Appointment, Lecture, Lecture/Studio Combination, Studio

DIGD 370: Portfolio Development Seminar

This course provides students with an active and deep survey of constructing an effective design portfolio through various means including: print, electronic PDF, community websites, and independent websites. Students will also develop resume & portfolio and participate in presentation and interviewing exercises. This course is recommended for design students in their junior year seeking internship and seniors seeking professional employment following graduation.

Credits: 1

College: School of Design & Engineering

Schedule Type: On-Line, Studio

DIGD 403: Web Development

This course will explore the Web markup languages, HTML, CSS and Java Script, required for advanced control of Web design. Students will be introduced to these languages through lectures, demonstrations and practical exercises. The focus will be on writing, testing and debugging the code and its appropriate application. A series of increasingly complex exercises will gradually build the student's knowledge and understanding of these languages.

Credits: 3

College: School of Design & Engineering

Prerequisites: DIGD 206 [Min Grade: C]

Schedule Type: By Appointment - 1 student, Lecture

DIGD 415: 3-D Modeling

This course exposes students to the conceptual and technical aspects of three-dimensional modeling, animation, and virtual environments. Students will complete a series of specifically designed exercises of increasing difficulty leading to a final project of the student's choosing. The class will cover the basic principles of 3D modeling and animation including polygonal modeling, texturing, lighting and animation. An emphasis will be placed on clear and concise communication of information and ideas expressed through a visual medium.

Credits: 3

College: School of Design & Engineering

Prerequisites: DIGD 206 [Min Grade: D]

Schedule Type: Lecture, Studio

DIGD 417: Content Mgmt Sys & E-Commerce

This course introduces students to a wide variety of content management systems (CMS) that have become commonplace in the web design industry. Students will be introduced to best development practices and system architecture among several popular platforms. Additionally, advanced topics such as e-commerce platforms and application development will be explored. This course will include a series of progressively more difficult and technically complex projects leading toward a larger and more in depth final project. Prerequisite : DIGD-403.

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture, Studio

DIGD 498: Interdisc Capstone Proj Prep

(writing intensive) This course requires students to identify and analyze potential capstone projects through a number of lenses including technical feasibility, marketability and design potential. With faculty guidance, students will form interdisciplinary teams that reflect the specific requirements of the chosen capstone project. To complete this course, a project proposal must be submitted documenting the factors that will allow the development of a successful capstone project. Research and presentation skills are a major focus of this course.

Credits: 3**College:** School of Design & Engineering**Prerequisites:** DIGD 314 [Min Grade: C]**Schedule Type:** Lecture**DIGD 499: Interactive Design IV Capstone**

This capstone studio will develop the ability of the digital designer to successfully participate on an interdisciplinary team. Students from a variety of majors, already organized in the capstone preparation course, will collaborate to develop a final, working prototype of a product, service, experience or publication of their choice that synthesizes their knowledge and skills from the previous semesters. The students will develop a project that demonstrates innovation, marketability and relevance within the larger community.

Credits: 6**College:** School of Design & Engineering**Prerequisites:** DIGD 498 [Min Grade: B-]**Schedule Type:** By Appointment - 1 student, Studio

Digital Design Media (CIDD) Directed Learning (DRLN) Drawing (DRAW)

DRAW 100: Intro to Observational Drawing

DRAW100 is intended as a general survey of the art of drawing for non-design majors. This hands-on studio course introduces the student to the process of observational drawing using basic drawing techniques and concepts. Students will develop sound observational skills through visualization using a variety of mark-making tools. Students will learn the fundamentals of drawing through a series of exercises that focus on line weight, volume, proportion, light and shadow and basic perspective techniques.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture, Lecture/Studio Combination, Studio**DRAW 101: Drawing Essentials**

This course introduces the student to the process of visual communication using basic drawing techniques and concepts. Students will develop sound observational skills through visualization using a variety of both traditional and digital drawing tools. Students will learn the fundamentals of drawing (line weight, proportion, rendering and perspective techniques) and understand how they apply to design development.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture, Lecture/Studio Combination, Studio**DRAW 201: Drawing II for Graphic Design****Credits:** 3**College:** School of Design & Engineering**Prerequisites:** DRAW 101 [Min Grade: D]**Schedule Type:** Lecture, Studio**DRAW 206: Drawing II: Figure Drawing**

In this course, students acquire special knowledge of the human figure and anatomy. A variety of media and methods of graphic representation are explored. Perceptual skills, as well as cognitive aspects of drawing the human form, will be studied. Live models, both clothed and nude, charts, skeleton model and the self will be used as sources for study.

Credits: 3**College:** School of Design & Engineering**Prerequisites:** DRAW 101 or ARFD 103 or DRAW 100 [Min Grade: D]**Schedule Type:** By Appointment - 4 students, By Appointment - 5 students, By Appointment, By Appointment/Lecture/Studio, Lecture, Studio**DRAW 301: Drawing: Design & Development**

This is an advanced drawing course developed for designers of all disciplines who want to improve the designer's ability to apply knowledge imparted in other courses to the development of designs. Wherever possible the subject matter of the students' design studio courses will be used as the subject matter for drawing exercises.

Credits: 3**College:** School of Design & Engineering**Prerequisites:** INDD 102 and (DRAW 201 or VDRW 101 or DRAW 101) [Min Grade: D]**Schedule Type:** By Appointment - 1 student, Lecture, Lecture/Studio Combination, On-Line, Studio**DRAW 303: Drawing: Materials/Techniques**

This course further develops the students drawing skills by introducing a variety of mark-making tools and techniques. Students will learn both traditional and experimental drawing processes within the context of historical and contemporary movements in art and design. Students will use drawing as a vehicle for design development, visual communication and creative expression.

Credits: 3**College:** School of Design & Engineering**Prerequisites:** DRAW 101 or DRAW 100 or ARFD 103 [Min Grade: D]**Schedule Type:** Lecture, Lecture/Studio Combination, Studio

Economics (ECON)

ECON 2XX: Economics Elective**Credits:** 3**College:** School of Business**Schedule Type:** Lecture, On-Line**ECON 111: Principles of Economics****Credits:** 4**College:** School of Business**Schedule Type:** Lecture**ECON 201: Principles of Macroeconomics****Credits:** 3**College:** School of Business**Schedule Type:** Independent Study, Lecture, On-Line**ECON 202: Principles of Microeconomics****Credits:** 3**College:** School of Business**Schedule Type:** Independent Study, Lecture, On-Line

ECON 205: Macroeconomics

Introduction to the overall functioning of an economic system with a view toward understanding the factors underlying income, employment and prices on the aggregate level. Topics include monetary and fiscal policy with primary emphasis on the impact of international trade and policy implications.

Credits: 3

College: School of Business

Schedule Type: Lecture, Lecture/On-Line, On-Line

ECON 205T: Transfer Macroeconomics

Credits: 3

College: School of Business

Schedule Type: Lecture

ECON 206: Microeconomics

Introduction to the principles underlying the behavior of business firms, resource owners and consumers within a system of markets. Introduces the theory of value and distribution and the implications of international trade on autarchy value and distribution.

Credits: 3

College: School of Business

Schedule Type: Lecture

ECON 231: Economic Decision Making

This Continuing and Professional Studies Core course introduces principles underlying the behavior of business firms, resource owners, and consumers within a system of markets. The theory of value and distribution and the implications of international trade on both value and distribution are addressed. Overall purpose of the course is to introduce many of the factors underlying sound economic decision making in the rapidly emerging global economy. There is a strong course focus on critical analysis of cases.

Credits: 3

College: School of Business

Schedule Type: By Appointment - 4 students, Lecture, On-Line

ECON 301: Healthcare Economics

Credits: 3

College: School of Business

Schedule Type: Lecture

ECON 331: Economic Decision Making

This Continuing and Professional Studies Core course introduces principles underlying the behavior of business firms, resource owners, and consumers within a system of markets. The theory of value and distribution and the implications of international trade on both value and distribution are addressed. Overall purpose of the course is to introduce many of the factors underlying sound economic decision making in the rapidly emerging global economy. There is a strong course focus on critical analysis of cases.

Credits: 3

College: School of Business

Schedule Type: By Appointment - 3 students, Lecture, On-Line

ECON 381: Independent Study in Economics

Credits: 3

College: School of Business

Schedule Type: Independent Study

ECON 401: International Economics

Credits: 3

College: School of Business

Prerequisites: HCA 300 and ECON 202 [Min Grade: D]

Schedule Type: By Appointment, Lecture, On-Line

ECON 402: Healthcare Policy & Economics

Credits: 3

College: School of Business

Schedule Type: Lecture, Lecture/On-Line, On-Line

Economics (Online) (ECNX)

ECNX 231: Economic Decision Making

This Continuing and Professional Studies Core course introduces principles underlying the behavior of business firms, resource owners, and consumers within a system of markets. The theory of value and distribution and the implications of international trade on both value and distribution are addressed. Overall purpose of the course is to introduce many of the factors underlying sound economic decision making in the rapidly emerging global economy. There is a strong course focus on critical analysis of cases.

Credits: 3

College: School of Business

Schedule Type: On-Line

ECNX 331: Economic Decision Making

Credits: 3

College: School of Business

Schedule Type: On-Line

Education (EDUC) Electives (ELEC)

ELEC 1XX: Free Elective Placeholder

Credits: 3

College: Undefined College

Schedule Type: Lecture

ELEC 2XX: Free Elective Placeholder

Credits: 3

College: Undefined College

Schedule Type: Lecture

ELEC 3XX: Free Elective Placeholder

Credits: 3

College: Undefined College

Schedule Type: Lecture

ELEC 170: Free Elective

Credits: 1-16

College: Undefined College

Schedule Type: Lecture

ELEC 171: Free Elective

Credits: 1-16

College: Undefined College

Schedule Type: Lecture

ELEC 172: Free Elective

Credits: 1-16

College: Undefined College

Schedule Type: Lecture

ELEC 173: Free Elective

Credits: 1-16

College: Undefined College

Schedule Type: Lecture

ELEC 174: Free Elective
Credits: 1-16
College: Undefined College
Schedule Type: Lecture

ELEC 175: Free Elective
Credits: 1-16
College: Undefined College
Schedule Type: Lecture

ELEC 176: Free Elective
Credits: 1-16
College: Undefined College
Schedule Type: Lecture

ELEC 177: Free Elective
Credits: 1-16
College: Undefined College
Schedule Type: Lecture

ELEC 178: Free Elective
Credits: 1-16
College: Undefined College
Schedule Type: Lecture

ELEC 179: Free Elective
Credits: 1-16
College: Undefined College
Schedule Type: Lecture

ELEC 180: Free Elective
Credits: 1-16
College: Undefined College
Schedule Type: Lecture

ELEC 181: Free Elective
Credits: 1-16
College: Undefined College
Schedule Type: Lecture

ELEC 182: Free Elective
Credits: 1-16
College: Undefined College
Schedule Type: Lecture

ELEC 183: Free Elective
Credits: 1-16
College: Undefined College
Schedule Type: Lecture

ELEC 184: Free Elective
Credits: 1-16
College: Undefined College
Schedule Type: Lecture

ELEC 185: Free Elective
Credits: 1-16
College: Undefined College
Schedule Type: Lecture

ELEC 186: Free Elective
Credits: 1-16
College: Undefined College
Schedule Type: Lecture

ELEC 187: Free Elective
Credits: 1-16
College: Undefined College
Schedule Type: Lecture

ELEC 188: Free Elective
Credits: 1-16
College: Undefined College
Schedule Type: Lecture

ELEC 189: Free Elective
Credits: 1-16
College: Undefined College
Schedule Type: Lecture

ELEC 190: Free Elective
Credits: 1-16
College: Undefined College
Schedule Type: Lecture

ELEC 191: Free Elective
Credits: 1-16
College: Undefined College
Schedule Type: Lecture

ELEC 192: Free Elective
Credits: 1-16
College: Undefined College
Schedule Type: Lecture

ELEC 193: Elective Transfer Credit
Credits: 3-4
College: Undefined College
Schedule Type: Transfer Credit

ELEC 194: Elective Transfer Credit
Credits: 3-4
College: Undefined College
Schedule Type: Transfer Credit

ELEC 195: Elective Transfer Credit
Credits: 3-4
College: Undefined College
Schedule Type: Transfer Credit

ELEC 196: Elective Transfer Credit
Credits: 3-4
College: Undefined College
Schedule Type: Transfer Credit

ELEC 197: No Jefferson Equivalent
Credits: 1-16
College: Undefined College
Schedule Type: Lecture

ELEC 198: No Jefferson Equivalent
Credits: 1-16
College: Undefined College
Schedule Type: Independent Study, Lab, Lecture

ELEC 199: Elective Transfer Credit
Credits: 3
College: Undefined College
Schedule Type: Transfer Credit

ELEC 398: No Jefferson Equivalent
Credits: 1-16
College: Undefined College
Schedule Type: Independent Study, Lab, Lecture

Emergency Medical Services (EMS)

EMS 101: Emergency Medical Tech-Basic

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture/Lab

EMS 310: Emergency Services Law

This course explores the essential framework of federal, state and local laws that impact on emergency and public safety services. It will provide an overview of the most important federal and state legislation that impact emergency services management and disasters.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: By Appointment - 2 students, By Appointment - 3 students, Lecture

EMS 320: Emergency Mgmt Planning

Topics covered in this course include: program planning and management, financial planning, managing information, leadership and followership styles, decision making skills, community building skills, intergovernmental relationships, negotiating and communication skills and professionalism.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: By Appointment - 3 students, Lecture

EMS 330: Pub Hlth Iss Impacting Emer Srv

This course explores the relationship of public health and emergency and disaster prevention, response and recovery environments. Discussions examine the changing and unique role of public health in emergency management paying special attention to epidemiology, integration with traditional emergency services, medical and first responders, public safety, bioterrorism preparedness, and the need for comprehensive pre-education of professional and public communities. The class will cultivate insight into the necessary integration of public health in the development of effective emergency response contingencies specific to natural, accidental and international disaster events.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: By Appointment - 1 student, By Appointment - 3 students, Lecture

EMS 410: Disaster Resp & Recov Planning

Disasters can be natural, technological, or terrorist in nature; and a proactive rather than re-active approach to disaster preparation is the best means of mitigating damage. This course covers systematic planning and recovery efforts for when disaster emergencies occur. Students will examine issues in their respective fields and develop strategies for response and recovery methods and techniques from related case studies.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: By Appointment - 3 students, Lecture

EMS 499: Applied Proj in Ems Leadership

Students will explore the relevant scholarly literature and then conduct an indepth analysis of the emergency services industry and design an innovative project. Knowledge of statistical analysis, process planning, and data gathering will be used to complete their analysis and report on a comtemporary topic or aspect of the business. Students will demonstrate their ability to assess the efficacy of program design as well as describe the project planning and implementation process. Student projects are evaluated based on the capacity to incorporate familiarity with systems and planning in a comprehensive project, in the context of their subject.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: By Appointment - 2 students, Lecture

Engineering (ENGR)

ENGR 3X1: Mat. Sci/Op. Research 1

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture

ENGR 3XX: Engr Designated Elective

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture

ENGR 101: Introduction to Engineering

This course is an introduction to engineering through hands on use of design, build and test modules in mechanical, industrial and architectural fields. The course helps the students to relate basic sciences to engineering applications. The course makes an introduction to programming logic, engineering design, materials, workshop skills, engineering ethics and technical presentation. Visits to engineering industries and professional society meetings will be arranged.

Credits: 3

College: School of Design & Engineering

Schedule Type: Lab, Lecture, Lecture/Lab

ENGR 102: Engineering Drawing

This course introduces students to engineering drawing, descriptive geometry, design and problem solving. Engineering drawing is a graphic language that can convey, with exactness and detail, ideas from the design engineer to the fabricator. Thus, the emphasis of the course is on communicating design ideas through engineering drawings.

Credits: 3

College: School of Design & Engineering

Prerequisites: MATH 102 or MATH 110 or MATH 111 [Min Grade: D]

Schedule Type: Lab, Lecture

ENGR 104: Introduction to Computing

An introductory course which provides a coherent and comprehensive treatment of fundamental concepts of computer science. It describes how computing systems work and how they are applied to solve real-world problems. The main emphasis is on the design of algorithms and procedural abstraction. High-level, language-programming projects.

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture

ENGR 210: Intro to Materials Science

A study of the relationship between structures and properties for common engineering materials, including metals, polymers, ceramics, and composites. Mechanical behavior temperature effects, heat treatment, corrosion, electrical, and other properties are covered.

Credits: 3

College: School of Design & Engineering

Prerequisites: (MATH 110 or MATH 111) and (CHEM 103 and CHEM 103L) [Min Grade: D]

Schedule Type: Lecture

ENGR 215: Engineering Statics

Engineering statics describes the mechanical behavior of materials and systems in equilibrium using Newton's laws of motion. In this course, students will learn the principles of force equilibrium, how to construct free-body diagrams, understanding distributed forces, friction and introductory structural response.

Credits: 3

College: School of Design & Engineering

Prerequisites: PHYC 201 and PHYC 201L [Min Grade: D]

Schedule Type: By Appointment, Lecture, Lecture/On-Line, On-Line

ENGR 217: Human Factors Engineering

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture

ENGR 218: Engineering Dynamics

Engineering dynamics describes the motions of particles and rigid bodies and the forces that accompany or cause those motions. Basic methods include Newton's laws, the work and energy principle, and the impulse and momentum principle.

Credits: 3

College: School of Design & Engineering

Prerequisites: ENGR 215 and MATH 112 and PHYC 201 and PHYC 201L [Min Grade: D]

Schedule Type: Lecture

ENGR 301: Mechanics of Materials

Internal forces; stress, strain and their relations; stresses and deformations in axially loaded members; stresses and deformations in torsionally loaded members; stresses and deformations in flexural members; combined stresses; column analysis; statically indeterminate members; introduction to member design.

Credits: 3

College: School of Design & Engineering

Schedule Type: By Appointment, Lecture

ENGR 302: Design for Manufacturability

This course focuses on the design process; interaction of materials, processes and design; economic considerations; design considerations for machining, casting, forging, extrusion, forming, powder metallurgy; designing with plastics; design for assembly; projects and case studies.

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture

ENGR 303: Engineering Economics

This course is designed to provide the engineering student with the decision-making skills necessary to evaluate the monetary consequences of the products, processes and projects that engineers design. Decisions must balance economics, performance, aesthetics and resources. As the capital outlays may be significant and affect the productive potential of a firm over the long term, it is important to understand the time value of money. The course emphasizes calculations of present values, future worth, internal rates of return and replacement analysis. In addition to the specific financial concepts covered, the student will construct computer spreadsheets to do sensitivity analysis and generate graphs to enhance presentation skills.

Credits: 3

College: School of Design & Engineering

Prerequisites: ENGR 305 [Min Grade: D]

Schedule Type: By Appointment - 1 student, Lecture, On-Line

ENGR 304: Operations Research I

This course addresses the philosophy and techniques of operations research. Emphasis is placed on elementary model building and concepts of optimization; structure of problem solving; linear programming, transportation and assignment algorithms; game theory; network analysis, branch and bound theory.

Credits: 3

College: School of Design & Engineering

Prerequisites: ENGR 305 and MATH 112 [Min Grade: D]

Schedule Type: Lecture

ENGR 305: Engineering Statistics

This course addresses the fundamentals of probability and distribution theory with application to various branches of engineering; basic probability theory, discrete random variables, continuous random variables, independent random variables, covariance and correlation and linear combinations of random variables. Statistical decision theory including significance testing and estimation, confidence intervals, design and perform tests of hypotheses on population means, standard deviations and proportions.

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture

ENGR 307: Engineering Statistics II

This course is a continuation of EN505 Engineering Statistics, and it is required for the BSISE and the BSE with minor in ISE. Application of statistical techniques to industrial problems; relationships between experimental measurements using regression and correlation theory and analysis of variance models; design of experiments with one and more than one levels; emphasis on inherent variability of production processes; control chart techniques and the use of exponential and Weibull models in reliability analysis; statistical process control.

Credits: 3

College: School of Design & Engineering

Prerequisites: ENGR 305 [Min Grade: D]

Schedule Type: Lecture

ENGR 308: Integrated Engr Product Dev. I

ENGR 308 Integrated Engineering Product Development I The IEPD two-course sequence combines the perspectives of design, engineering and marketing in the product development process in a hands-on, collaborative environment. Throughout the course students will be working in groups to design, develop, prototype and analyze economic and marketing aspects of engineered products. Students will be prepared to use modern engineering tools including rapid prototyping, CNC machine tools, CAD based product lifecycle analysis and management, costing and market data analysis.

Credits: 3

College: School of Design & Engineering

Prerequisites: MATH 112 and ENGR 104 and ENGR 102 [Min Grade: D]

Schedule Type: Lab, Lecture

ENGR 309: Integrated Engr Prod Dev. II

Credits: 3

College: School of Design & Engineering

Prerequisites: ENGR 308 [Min Grade: D]

Schedule Type: Lab, Lecture

ENGR 311: Fluid Mechanics

The fundamentals of fluid mechanics. Topics include fluid statics, control-volume analysis, the Navier-Stokes equations, similitude, viscous, inviscous and turbulent flows and boundary layers.

Credits: 3

College: School of Design & Engineering

Prerequisites: ENGR 218 [Min Grade: D]

Schedule Type: Lecture

ENGR 314: Numerical Meths for Engineers

Numerical methods are used to solve mathematical problems that are often impossible to solve analytically. Numerical methods enable formulating engineering problems so that they can be solved by arithmetic operations. Problems with large systems of equations, nonlinearities and complicated geometries that are encountered in engineering can be solved by the use of numerical methods and programming using computers. The emphasis of this course is the use of personal computers to solve mathematical problems.

Credits: 3

College: School of Design & Engineering

Prerequisites: MATH 225 and ENGR 104 [Min Grade: D]

Schedule Type: By Appointment - 1 student, By Appointment - 2 students, Lecture

ENGR 316: Intr & Materials for Composit

An overall introduction to composites will be presented including their mechanical properties and advantages. Fiber reinforcements will include pre-pregs and textile composites. Composites design and various molding techniques will be covered. The laboratory will have various manufacturing and experimental exercises.

Credits: 3

College: School of Design & Engineering

Prerequisites: ENGR 215 [Min Grade: D]

Schedule Type: Lab, Lecture, Lecture/Lab

ENGR 317: Composites Manufacturing

This course will be a laboratory intensive course that will include material selection and tooling types. Materials will include pre-pregs and woven and braided performs. Key issues in tool design, bond assembly jigs and secondary tooling, hand layup, tape layup and fiber placement, bag molding and autoclaving, compression molding, pultrusion, RTM, VaRTM, mechanical property tests, manufacturing defects and quality control will be covered.

Credits: 3

College: School of Design & Engineering

Prerequisites: ENGR 316 [Min Grade: D]

Schedule Type: Lab, Lecture

ENGR 322: Fund. of Elect. Engineering I

This course explores the analysis of circuits; transient and steady state phenomena; and general analysis techniques; and the fundamentals of direct and alternating circuits, transformers rotating machinery, electrical and electronic control, and electrical energy.

Credits: 3

College: School of Design & Engineering

Prerequisites: PHYC 203 and PHYC 203L and MATH 111 and MATH 112 [Min Grade: D]

Schedule Type: Lecture

ENGR 371: Special Topics

An upper-level course designed to take advantage of resident/adjunct/visiting faculty members' expertise or a special focus wanted by the School for one or two terms. These courses might provide an in-depth treatment of recent advances in subjects of current interest in a given field whose subject matter is not necessarily needed to be offered long term. A specific "topic" may be delivered a maximum of two term.

Credits: 3

College: School of Design & Engineering

Schedule Type: Independent Study, Lecture

ENGR 381: Independent Study in Engr I

Credits: 3

College: School of Design & Engineering

Schedule Type: Independent Study

ENGR 382: Independent Study in Engr II

Credits: 3

College: School of Design & Engineering

Schedule Type: Independent Study

ENGR 399: Engineering Design Seminar

The purpose of the Engineering Design Seminar is to support student success as Engineering students prepare to move into their senior design experience. As a pre-requisite for the Engineering senior design experience, the course is built around didactic and experiential educational components, pre-project research assignments, and independent research. Included in the course are elements that teach and reinforce the project proposal process, refine technical report writing skills, and promote lifelong learning and continuing professional development.

Credits: 0.5

College: School of Design & Engineering

Prerequisites: ENGR 311 and ENGR 322 [Min Grade: D]

Schedule Type: Lecture

ENGR 404: Composites Design Analysis

The factors which govern analytical composite design will be discussed. Two dimensional stress strain relationships along the planar axes of the composites, orthotropic material constitutive relationships will be investigated. The course includes instruction in finite element analysis for composites including complex structures which include core materials. The various accepted failure criteria including maximum stress, Tsai-Hill, and Tsai-Wu criterion will be compared. A procedure for laminate strength analysis and failure envelopes will be introduced.

Credits: 3**College:** School of Design & Engineering**Prerequisites:** ENGR 301 and ENGR 316 and ENGR 317 [Min Grade: D]**Schedule Type:** By Appointment, Lecture**ENGR 405: Engineering Simulations**

Finite Element Analysis (FEA) is a computer-based numerical technique for simulating and analyzing engineering products and systems. In this course, students will mainly explore the use of FEA to obtain stress/strain characteristics of typical machine elements. Following a brief recap of matrix algebra, developing stiffness matrices, constraints, shape functions, material properties, and others will be discussed. FEA results will be compared with predictions by classical stress equations. Students will also be introduced to thermal and fluid flow analysis using FEA. In addition to FEA, the course will have hands-on experiments with strain gauges and photoelastic analysis of stress levels in a few machine elements.

Credits: 3**College:** School of Design & Engineering**Prerequisites:** ENGR 301 [Min Grade: D]**Schedule Type:** Lecture**ENGR 406: Compo Struc Indust & Consu Ap**

Analysis of composites for use in automotive, other mechanical structures will be addressed. The focus will be on system design, structure design and engineering economics associated with actual composite structures and systems.

Credits: 3**College:** School of Design & Engineering**Prerequisites:** ENGR 303 and ENGR 316 and ENGR 404 [Min Grade: D]**Schedule Type:** Lecture**ENGR 498: Senior Design Project I**

This course exposes the students to a series of real-world industry problems that require applications of Industrial Engineering principles. A preliminary analysis of various selected problems will be performed collectively. The students will then form a team and select their senior design project. The course also covers (through invited speakers) topics related to the engineering profession such as ethics, intellectual property, project management and social responsibility. Students will present a written and oral proposal of their senior design project preparation.

Credits: 3**College:** School of Design & Engineering**Prerequisites:** WRIT 211 or WRIT 215 or WRIT 217 or WRIT 201 or WRIT 202 [Min Grade: D]**Schedule Type:** By Appointment - 1 student, Lab, Lecture, Lecture/Lab**ENGR 499: Senior Design Project II**

Students in this course will apply engineering principles to solve a real-world problem. Student works as member of a team assigned to a problem in a manufacturing, processing, service or government organization. The capstone senior design project will consist of a project that builds on engineering, business, ethics and social issues. This course requires a professional written and oral report and will serve as the program's major writing intensive course. [Writing Intensive]

Credits: 3**College:** School of Design & Engineering**Prerequisites:** ENGR 498 [Min Grade: D]**Schedule Type:** By Appointment - 1 student, Lab, Lecture

English (ENGL)

ENGL 102: Composition II**Credits:** 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** ENGL 101**Schedule Type:** Lecture**ENGL 110: College Writing****Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture, On-Line**ENGL 198: Transfer Writing****Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**ENGL 214: Short Fiction**

This course examines the short story as a literary genre and offers the opportunity to understand it from historical and aesthetic viewpoints. Particular emphasis is given to American and contemporary authors such as Hawthorne, Joyce, Steinbeck, Welty, Hemingway, and others who have made noteworthy contributions to the genre.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture, On-Line

English (Online) (ENGX)

ENGX 110: College Writing

This course is designed to develop and refine the analytical/critical reading skills and the substantive writing skills of freshmen. This intensive writing class will focus on writing essays of varying length and expose students to the various rhetorical modes of writing that will contribute to their success in university courses and their chosen careers.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** On-Line**ENGX 214: Short Fiction**

This course examines the short story as a literary genre and offers the opportunity to understand it from historical and aesthetic viewpoints. Particular emphasis is given to American and contemporary authors such as Hawthorne, Joyce, Steinbeck, Welty, Hemingway, and others who have made noteworthy contributions to the genre.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** On-Line

English as Second Language (ESL)

Ethics (ETHC)

ETHC 1XX: Ethics Course Placeholder

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

ETHC 2XX: Ethics Course Placeholder

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

ETHC 198: Transfer Ethics

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

ETHC 200: Bioethics

This philosophy course covers ethical issues in biological research, medical research, the practice of medicine, the allocation of medical resources, public health policy, and related issues. Students will gain fluency in the basic language and tools of philosophy and will study several theories of ethical decision-making.

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: (WRIT 101 or WRIT 101G or WRIT 101S) and (AMST 114 or DBTU 114 or AMST 198 or AVIS 198 or DBTU 198 or AVIS 101) [Min Grade: D-]

Schedule Type: Lecture

ETHC 201: Honors Moral Philosophy

This course provides an introduction to moral philosophy. We focus on normative ethics (the study of what theory provides the best account of right and wrong) and applied ethics (application of ethical theories to particular cases). We will also cover a few topics in metaethics (the study of the ultimate nature of moral concepts, values, and language). The course will always provide extensive coverage of the three most important ethical theories: utilitarianism, deontology, and virtue ethics. The remaining topics will vary by semester and according to student interest. Honors Program membership required.

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: WRIT 101 or WRIT 101G or WRIT 101S or AMST 114 or AVIS 101 or DBTU 114 or AMST 198 or AVIS 198 or DBTU 198 [Min Grade: D-]

Schedule Type: Lecture

ETHC 202: Environmental Ethics

This course will cover contemporary topics in environmental ethics from a philosophical perspective. Students will gain fluency in the basic language and tools of philosophy. We will study several theories of ethical decision-making and apply them to real world situations, with a focus on issues in environmental ethics (including professional ethics, civic responsibility, and public policy).

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: (WRIT 101 or WRIT 101G or WRIT 101S) and (AMST 114 or DBTU 114 or AMST 198 or AVIS 198 or DBTU 198 or AVIS 101) [Min Grade: D-]

Schedule Type: Lecture

ETHC 204: The Ethics of Apocalypse

The Ethics of Apocalypse: Dystopian Film & Literature This course studies ethical issues of human social interaction in literature, culture, and film. The concepts of utopia and dystopia - from planned society to zombies - offers a range of topics like civilization and liberty, social control, technology and human relationships. Students will investigate social life using key philosophical concepts as a basis for study. The course emphasizes evaluation of assumptions and reasoning behind solutions and the impacts of world belief systems on moral values and behavior. Students will reflect on their own personal ethics, and apply ethical reasoning to realworld problems.

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: (WRIT 101 or WRIT 101G or WRIT 101S) and (AMST 114 or DBTU 114 or AMST 198 or AVIS 198 or DBTU 198 or AVIS 101) [Min Grade: D-]

Schedule Type: Lecture

ETHC 207: Philosophy & Ethics of Design

This course covers various philosophical topics in design with a primary focus on ethics. We study two of the most important theories of ethical decision-making and apply them to problems in design ethics. The course also covers issues in the metaphysics, epistemology, and aesthetics of design. Depending on the semester, we may investigate applied ethics problems in architectural ethics, urban planning and infrastructure, engineering ethics, biodesign, user interface design, graphic design, product design, or other related topics. This course can be counted towards the Design Humanities certification.

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: (WRIT 101 or WRIT 101G or WRIT 101S) and (AMST 114 or AMST 198 or DBTU 114 or AVIS 198 or DBTU 198 or AVIS 101) [Min Grade: D-]

Schedule Type: Hybrid, Lecture, On-Line

ETHC 215: Evil and Good

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: (WRIT 101 or WRIT 101G or WRIT 101S) and (DBTU 114 or DBTU 198 or AMST 114 or AVIS 198 or AMST 198 or AVIS 101) [Min Grade: D-]

Schedule Type: Lecture, On-Line

Exercise Science (EXSC)

EXSC 2XX: Exercise Science Placeholder

Credits: 3

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Lecture

EXSC 3XX: Exercise Science Placeholder

Credits: 3

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Lecture

EXSC 110: Intro to Exercise Science

In this course students are introduced to the discipline of exercise science. The scope of the topics covered in the course include professionalism, ethics, certification and licensure, employment opportunities and scientific foundations of the various sub-disciplines. Students will complete online search activities to explore these topics. This course sets the foundation for discipline specific coursework. This course is appropriate for students wishing to explore the discipline of exercise science and is required for students in the major.

Credits: 1**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture, On-Line**EXSC 210: Developing the Interprof Team**

In this course students are introduced to the healthcare disciplines that encompass the interprofessional team. The scope of the topics covered in the course include the scope of practice, licensure and certifications, specialty training, and the role in the interprofessional team for each of the healthcare disciplines. Students will hear directly from professionals in each of the disciplines and be involved in case-based learning activities to help understand the optimal team approach to patient care. This course expands on the foundation for discipline specific coursework and allows students to understand the unique roles and responsibilities of each member of the interprofessional team to allow for improved patient care. This course is required for students in the exercise science major.

Credits: 1**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture**EXSC 301: Biomechanics**

This course focuses on the foundational principles in biomechanics that influence physical movement and activity. Student will learn these principles through both mathematical and conceptual concepts. This course is appropriate for students wishing to explore the discipline of exercise science and is required for students in the undergraduate major.

Credits: 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture**EXSC 306: Intro to Exercise Physiology**

This course provides the student with applied knowledge relative to the human's physiologic responses to exercise and other environmental stresses. Topics include nutrition, energy metabolism, respiratory, cardiovascular, and neuromuscular physiology, environmental factors, and applied physiology. Basic laboratory procedures and tests in the field of exercise physiology are designed to complement the lecture area.

Credits: 3**College:** Jefferson College of Rehabilitation Sciences**Prerequisites:** (BIOL 103 and BIOL 103L) or (BIOL 112 and BIOL 112L) [Min Grade: C-]**Schedule Type:** Lecture**EXSC 307: Intro to Kinesiology**

This course introduces students to the discipline of kinesiology and examines the study of physical activity from the perspectives of experience, research, and professional practice. The student will gain knowledge relevant to fundamental biophysical principles of human movement and their relationship to fitness and activity. The students are introduced to the sub-disciplines of Kinesiology including Sport Psychology/Sociology, Motor Behavior/Motor Learning, Biomechanics, and Exercise Physiology among other topics.

Credits: 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture**EXSC 310: Exercise Physiology**

This course focuses on human physiology mechanisms and adaptation that occur during activity, exercise, and sedentary behavior. Student will learn the material through both didactic and practical approaches. This course is appropriate for students wishing to explore the discipline of exercise science and is required for students in the undergraduate major.

Credits: 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture, On-Line**EXSC 311: Sports Nutrition**

This course focuses on basic nutritional principles including the specific considerations for various types of healthy and injured athletes. Students will learn the material through both didactic and practical approaches. This course is appropriate for students wishing to explore the discipline of exercise science and is required for students in the undergraduate major.

Credits: 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture**EXSC 312: Psych Theory of Hlth & Exerc**

This course examines theories and models of the psychology related to health and exercise. Topics include mind-body integration, psychophysiological effects of exercise, behavior change, motivation, arousal, stress and anxiety, and psychological well-being. Students will also gain experience in scientific inquiry and writing through case studies and a research review paper. The course meets the requirements for a writing intensive (WI).

Credits: 3**College:** Jefferson College of Rehabilitation Sciences**Prerequisites:** PSYC 101 and (WRIT 101 or WRIT 101G or WRIT 101S) and (WRIT 201 or WRIT 202) [Min Grade: D]**Schedule Type:** Lecture**EXSC 313: Safety, First Aid & Inj Preven**

This course focuses on the principles of first aid and professional life support as prescribed by the National Safety Council. The course is designed to provide the student with the knowledge and skills necessary to develop injury prevention strategies and act as a first responder in an emergency situation until more advanced medical help arrives. The course will consist of lectures and practical hands on activities that will mimic actual emergency situations.

Credits: 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture

EXSC 330: Internship I

This course focuses on real-world application of knowledge and skills in the workplace under the day-to-day supervision of an experienced exercise science professional. Potential internship settings include personal training studios, strength and conditioning facilities, corporate fitness programs, and cardiac rehabilitation programs. Students will expand their exercise science knowledge through practical (hands-on) approaches, working with real clients, athletes, or patients. They will become familiar with the day-to-day responsibilities, practices, policies, and professional conduct of exercise science professionals. Students will be evaluated based on their applied knowledge as well as their compliance with the rules and norms of their internship site. This course will help students transition to becoming practicing exercise science professionals, as well as set the foundation for further advanced study. This course is part of Jefferson's Creativity Core Curriculum. It is designated as a Creativity Intensive (CI) course and, as such, requires the completion of a Creative Making Workshop (more about this below). In line with Jefferson's creativity initiative, creativity skills and processes will be taught in an integrative manner alongside the disciplinary knowledge of this course for application in the profession through individual and collaborative projects/assignments. This course is required for and restricted to students in the undergraduate Exercise Science major.

Credits: 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture, On-Line, Rotation**EXSC 401: Exercise Prescription**

This course focuses on designing comprehensive exercise programs to elicit a wide range of physiological adaptations. The scope of the topics covered in the course include initial goal meetings and assessments, movement patterned-based exercise classification, and exercise progression and regression. Student will learn the material through both didactic (lecture- and discussion-based) and practical (lab-based) approaches. This course sets the foundation for careers in health and fitness as well as further advanced study in therapeutic exercise. This course is required for students in the undergraduate Exercise Science major.

Credits: 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture, Lecture/Lab**EXSC 402: Coaching: Strength Training**

This course focuses on strength training instruction and coaching. It provides foundational knowledge of effective client body positions coupled with visual and sensory cues to aid in proper motor activation of specific exercises. It includes exercises that target total body, lower and upper body, core, and isolated movements.

Credits: 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture**EXSC 405: Fitness Assessment**

This course focuses on laboratory and field tests used for assessing baseline and longitudinal physical fitness components used to determine contraindications, client goals, and exercise progression. This course also helps to collectively formulate the interpretation of the laboratory and field testing to provide details that will help educate and guide the client. This course is required for students in the undergraduate Exercise Science major.

Credits: 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture**EXSC 410: Exercise for Spec Populations**

This course provides the foundational understanding of the pathophysiological processes seen in various chronic conditions. It will also provide a clinical understanding of the limitations and special needs of clients with chronic conditions, which allows the exercise scientist to appropriately interact and serve the client. This course is required for students in the undergraduate Exercise Science major.

Credits: 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture**EXSC 412: Found of Strength & Condition**

This course focuses on the basic principles of strength and conditioning to gain relevant knowledge and prepare the students to take the exam to become a certified strength and conditioning specialist (CSCS) offered through the National Strength and Conditioning Association (NSCA). Student will learn the material through both didactic and practical approaches. This course is appropriate for students wishing to explore the discipline of exercise science and sitting for the CSCS certification exam.

Credits: 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture, Lecture/Lab**EXSC 414: Bus & Leadership in Ex Sci**

This course focuses on the principles of business and leadership in exercise science. Students will learn about the key concepts of leadership, team-building, and communication as they relate to the exercise science field. Students will also explore the basics of business management, including marketing, finance, and entrepreneurship, as well as how to apply these principles to a career in exercise science. This course is required for students in the undergraduate Exercise Science major.

Credits: 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture**EXSC 416: Research Methods**

This course introduces students to research methods in Exercise Science. It examines the research process, common study designs, statistical and measurement techniques, and best practices for scholarly dissemination. Students will gain familiarity with finding, reading, and critiquing research articles in terms of their design, methods, and data analysis. This course also serves as a guide to evidence-based practice and is required for students in the undergraduate Exercise Science major.

Credits: 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture

EXSC 430: Internship II

This course focuses on real-world application of knowledge and skills in the workplace under the day-to-day supervision of an experienced exercise science professional. Potential internship settings include personal training studios, strength and conditioning facilities, corporate fitness programs, and cardiac rehabilitation programs. Students will expand their exercise science knowledge through practical (hands-on) approaches, working with real clients, athletes, or patients. They will become familiar with the day-to-day responsibilities, practices, policies, and professional conduct of exercise science professionals. Students will be evaluated based on their applied knowledge as well as their compliance with the rules and norms of their internship site. This course will help students transition to becoming practicing exercise science professionals, as well as set the foundation for further advanced study. This course is required for and restricted to students in the undergraduate Exercise Science major.

Credits: 6**College:** Jefferson College of Rehabilitation Sciences**Prerequisites:** EXSC 330 [Min Grade: D]**Schedule Type:** Internship 6 Credits

Fashion Design (FASD)

FASD 3XX: Fashion Design Elective**Credits:** 3**College:** School of Design & Engineering**Schedule Type:** Lecture, Studio**FASD 111: Studio I**

Studio I is the first in a series of technical courses. Students in the Studio I course will be introduced to garment construction and appropriate end uses for industry machinery and various textiles. They will also build on the knowledge and skills learned in FASD252 Fashion Design Research. This course is only for Fashion Design Majors.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Studio**FASD 198: Transfer Fashion Design****Credits:** 3**College:** School of Design & Engineering**Schedule Type:** Lecture**FASD 204: Digital Fashion Design I**

Computer-aided design is utilized in every segment of the fashion industry from concept development, fabric design and illustration to line development, technical drawing, and presentations. Students learn CAD software and gain skills utilized in a variety of industry-related projects. (CAD 204 until Fall 2023)

Credits: 3**College:** School of Design & Engineering**Prerequisites:** FASD 252 and FASR 207 [Min Grade: D]**Schedule Type:** Lab, Lecture, On-Line**FASD 205: Fashion Designers 20th Century**

From Coco Chanel to Issey Miyake, 20th-century designers played an integral role in the development of the fashion industry. Through the use of the Textile and Costume Collection, students will have the opportunity to learn first hand from the work of these designers, while an emphasis on historical evidence will improve analytical and writing skills. Students will leave the course with a thorough understanding of key designers and their influence on 20th-century fashion and culture.

Credits: 1**College:** School of Design & Engineering**Schedule Type:** Lecture**FASD 211: Studio II**

This is the initial course in the fashion design technical studio sequence. This course focuses on the study and production of apparel construction methods. Students have the opportunity to produce garments and design them through the imaginative use of construction details. A sample book of various industrial construction methods is developed. Note: A minimum grade of "C" will be required in order to continue in the design studio sequence. Admission into the Fashion Design Program.

Credits: 3**College:** School of Design & Engineering**Prerequisites:** FASD 111 [Min Grade: C]**Schedule Type:** By Appointment - 1 student, Lecture, Lecture/Studio Combination, Studio**FASD 213: Studio III**

This course covers the fundamentals of the flat-pattern method. Students will manipulate bodice sleeve and skirt blocks to create various styles. Some patterns are cut and sewn in muslin to test fit and further enhance sewing skills. A sample book of flat-pattern techniques will be produced. In addition, one ensemble will be designed and produced. Prerequisite: FASD211 (Min grade C)

Credits: 3**College:** School of Design & Engineering**Prerequisites:** FASD 211 [Min Grade: C]**Schedule Type:** By Appointment, Lecture, Lecture/Studio Combination, Studio**FASD 250: Fashion Studies Abroad**

A "short course" that enables students to study various aspects of fashion design, production and merchandising in a major region of the world. Through a series of lectures, guided tours and visits to couture and ready-to-wear establishments, design studios, retailers, production plants and museums, students have the opportunity to experience a segment of the global fashion industry. Students carry a journal and write about their own experiences abroad. A visual record of design inspirations is required as part of the research assignments. Oral and written reports, including visuals, explore the design and business practices of apparel firms. Students also experience cooperative design and merchandising as a result of team assignments.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture, Study Abroad

FASD 252: Fashion Design Research

This required course focuses on methods of research and development of original concepts in the fashion design field. Visual sensitivity to the environment as a source for building observational skills, design literacy, visual documentation, and concept development skills will be addressed. Visits to design resources such as museums, architectural sites, analysis of trend forecasts and current influences will provide inspiration for development of a journal for application in future courses.

Credits: 3

College: School of Design & Engineering

Corequisites: DRAW 101

Schedule Type: Lecture, Lecture/Studio Combination, Studio

FASD 254: Fashion Design: Families of Florence

Florence Italy is home to some of Europe's most enduring Fashion Design brands; Gucci, Ferragamo, Pucci. While in Florence students will study the historic rise of these fashion families through archival museums (Gucci Museo, Museo de Ferragamo, Palazzo Pucci) as well as the thriving modern brands they have become through their flagship stores along the Via Tornabuoni. Students will also research the historical and cultural impact the city of Florence has had on the development and rise of these luxury designer brands.

Credits: 3

College: School of Design & Engineering

Schedule Type: Study Abroad

FASD 300: Technical Design

This course will enable the student through hands on experience to understand the basic requirements needed to be successful in the area of technical design. Building on their knowledge of pattern, construction and design, students will learn to create technical specifications packages used for product data management. Students will further acquire an advanced understanding of terminology and technical vocabulary needed to communicate with manufacturing facilities throughout the world. Students will learn the process of developing garment specifications, conducting fittings and successful communication for quality assurance issues to vendors and manufacturing personnel worldwide.

Credits: 3

College: School of Design & Engineering

Prerequisites: FASD 311 Min Grade: C and CAD 204 Min Grade: D

Schedule Type: Lecture, Lecture/Studio Combination, Studio

FASD 302: 3D Virtual Fashion Design I

3D Virtual Fashion Design I will enable students to understand the basic requirements needed to be successful utilizing industry-adopted 3D applications through hands on experience. Building on their pattern development knowledge and technical skills in 2D, students will learn to build an entire 3D collection from simple silhouettes to complicated designs utilizing fabric, fit, patterns, colors, and textures. Students will learn successful communication of quality assurance to vendors and manufacturing personnel worldwide.

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture

FASD 311: Studio IV

Students learn to drape basic bodice and skirt variations on standard industrial dress forms. An original look is designed, draped and sewn using industrial machinery. Accurate patternmaking, sewing and attention to design fundamentals are stressed throughout the course.

Prerequisites: FASD 213 (Minimum Grade C)

Credits: 3

College: School of Design & Engineering

Prerequisites: FASD 213 [Min Grade: C]

Schedule Type: Lecture, Lecture/Studio Combination, Studio

FASD 315: Digital Fashion Design II

Computer-aided design is used in every segment of the fashion industry from concept through to design and presentation. Students will learn how to develop industry standard presentations through a variety of projects, including research and analysis of various presentation styles, advanced design, and trim detail focus, incorporating technical draping, and rendering of multiple fabric manipulation techniques, type tool exploration, and advanced knit and textile print development.

Prerequisites: CAD-204 (Min grade C), FASD-252 Fashion Design Research

Credits: 3

College: School of Design & Engineering

Prerequisites: CAD 204 Min Grade: C and FASD 252 Min Grade: D

Schedule Type: Lab, Lecture, Lecture/Lab

FASD 316: Fashion Design Development

This course focuses on the key components of the fashion design process including research, trend forecasting, materials investigation and presentation of valuable, market-specific collections. Designers consider current market trends and design concepts as influences on merchandising. Extensive opportunities for the development and communication of a personal design vision in illustrated presentations helps students build portfolio-ready collections. Industry directed projects also provide opportunities to develop brand-conscious yet creative concepts and designs. CAD skills are utilized in a variety of presentational techniques.

Credits: 3

College: School of Design & Engineering

Prerequisites: FASD 252 and CAD 204 and FASR 207 [Min Grade: D]

Schedule Type: Lecture, Lecture/Studio Combination, Studio

FASD 317: Hand Knitting for Fashion Design

This elective course is offered to expand construction skills and design possibilities. By hand knitting and/or crocheting, students will design and produce marketable garments to augment other collections or as individual pieces. For Fashion Design Majors Only.

Credits: 3

College: School of Design & Engineering

Prerequisites: TEXT 101 [Min Grade: D]

Schedule Type: Lecture, Studio

FASD 321: Diversity in Design

Students in the FASD3XX Diversity in Design course will examine and study the market in design inclusivity. As a part of the research, students will frame the question and engage with focus groups to identify areas of need in underserved populations. Students will utilize their findings to develop a fashion design product that solves a need in the inclusivity market. During the final presentation, students will present the products to the focus groups, potential investors and industry professionals.

Credits: 3

College: School of Design & Engineering

Prerequisites: FASD 311 [Min Grade: C]

Schedule Type: Studio

FASD 322: Sustain Concepts for FD I

This course focuses on the impacts of the mainstream fashion industry on the planet and its people and how sustainable concepts can be utilized to build a better future. In addition to gaining a comprehensive overview of the problems the industry creates, students will also learn about the key organizations, technologies, trends and designers that are paving the way for a sustainable fashion industry. With contextual understanding, students will be empowered to explore strategies to incorporate sustainable design concepts into their work through responsible use of materials, upcycling and innovative approaches to patterning and construction. With these tools, students are provided the opportunity to consider new and alternative solutions to addressing real world sustainable design challenges.

Credits: 3**College:** School of Design & Engineering**Prerequisites:** FASD 252 and FASR 207 [Min Grade: D]**Schedule Type:** Lecture, Lecture/Studio Combination, Studio**FASD 335: Studio V**

In preparation for the Capstone Courses, students will apply technical and research skills to the creation muslin studies and a final look. Emphasis will be placed on industry standards as they apply to fit, patternmaking and construction techniques. Prerequisite: FASD311 (Min grade of C)

Credits: 3**College:** School of Design & Engineering**Prerequisites:** FASD 311 [Min Grade: C]**Schedule Type:** By Appointment - 2 students, By Appointment, Lecture, Studio**FASD 336: Costume Design: Film and Stage**

A studio course that offers fashion designers an opportunity to learn the basic process of costume design through the research, development and construction of an original costume design. Character and script analysis will be covered in addition to working effectively with directors and other collaborators. This course explores researching period costumes and uses appropriate construction techniques while considering comfort and durability for a modern theatre or film production.

Credits: 3**College:** School of Design & Engineering**Prerequisites:** FASD 311 and FASR 207 and ARTH 314 [Min Grade: D]**Schedule Type:** Studio**FASD 371: Special Topics in Fashion**

A topic of special interest to fashion students and faculty will be explored in a studio/lecture format. Topic will vary, to be chosen by the instructor.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture, Studio**FASD 373: Sustain Concepts for FD II**

This studio course is for fashion design students interested in enhancing their understanding of sustainable design concepts and their real-world applications to the fashion industry. Students will be given the opportunity to develop the framework for a sustainable fashion brand, applying sustainable design strategies to the design, sourcing and production of a line with respect to the planet and its people. The final term project will ask students to utilize lifecycle thinking and waste-led design to bring their designs to life, launching their brand's initial collection of apparel.

Credits: 3**College:** School of Design & Engineering**Prerequisites:** FASD 311 and FASD 322 [Min Grade: C]**Schedule Type:** Studio**FASD 380: Fashion Design Independent Stu****Credits:** 1**College:** School of Design & Engineering**Schedule Type:** By Appointment - 1 student, Independent Study**FASD 381: Fashion Design Independent Stu****Credits:** 3**College:** School of Design & Engineering**Schedule Type:** By Appointment - 1 student, By Appointment - 2 students, By Appointment - 3 students, Independent Study**FASD 415: Studio VI**

A capstone course for senior fashion designers to develop and produce a portfolio of original designs. The collection is designed, merchandised and produced by the student in collaboration with the instructor and a visiting critic.

Credits: 4**College:** School of Design & Engineering**Prerequisites:** FASD 316 Min Grade: D and FASD 322 Min Grade: D and FASD 335 Min Grade: C**Schedule Type:** Lecture, Lecture/Studio Combination, Studio**FASD 416: Studio VII**

Students will further develop the concepts from their original sources of inspiration from FASHDES-415, Collection Development I, creating a cohesive collection of clothing. This is also an opportunity for the student who wishes to investigate designing for a different market from a new inspirational source

Credits: 4**College:** School of Design & Engineering**Prerequisites:** FASD 415 and FASD 335 [Min Grade: C]**Schedule Type:** Lecture, Lecture/Studio Combination, Studio**FASD 419: Accessories**

Fashion design majors work primarily in designing and executing garments. However, the area of accessories presents excellent opportunities for the creative designer. The accessories market (hats, scarves, belts, handbags and jewelry) is growing and is in need of creative and qualified talent. Accessories is an elective for the student interested in pursuing a career in this market and/or for the student who, as a designer, is interested in the creation and coordination of the total ensemble.

Credits: 3**College:** School of Design & Engineering**Prerequisites:** FASD 211 and (FASD 252 or VDES 101) [Min Grade: D]**Schedule Type:** Lecture, Studio

FASD 433: Fashion Layout & Portfolio Dev

This course provides fashion design students with a professional portfolio of original work showcasing their design abilities, personal aesthetic, and body of work through illustration and photo layouts. The concept of layout and design will be explored through examining look book presentations, fashion illustration techniques, and aesthetic and brand development. Through group presentation and critique the student will practice techniques and skills used in a job interview. Prerequisite: FASR 207 (Minimum Grade D)

Credits: 3**College:** School of Design & Engineering**Prerequisites:** FASR 207 [Min Grade: D]**Schedule Type:** Lecture, Lecture/Studio Combination, Studio**FASD 441: Couture Techniques**

This elective teaches the various methods of creating and constructing a couture garment. Students will learn how to combine custom designing, flat pattern and draping, machine and hand skills to execute an ensemble of clothing in the style of selected couture designers.

Credits: 3**College:** School of Design & Engineering**Prerequisites:** FASR 207 and FASD 311 [Min Grade: D]**Schedule Type:** Lecture, Studio

Fashion Drawing (FASR)

FASR 207: Fashion/Figure Drawing

Students review basic forms of the figure in an anatomical, gestural and design sense. In a studio setting, students develop the skills and vocabulary of design room and presentation sketching by drawing from live models, developing designer croquis and technical drawings, exploring various media and rendering fabrics.

Credits: 3**College:** School of Design & Engineering**Prerequisites:** DRAW 206 [Min Grade: D]**Schedule Type:** By Appointment - 1 student, By Appointment, By Appointment/Lecture/Studio, Lecture, Lecture/Studio Combination, Studio**FASR 317: Fashion Illustration I**

An elective for students who are interested in further developing their illustration skills and their applications in the field of fashion design. Students do extensive fashion model studies and develop several visual presentations related to concepts and techniques presented in class. Presentation techniques and portfolio presentation will also be addressed.

Credits: 3**College:** School of Design & Engineering**Prerequisites:** FASR 207 [Min Grade: D]**Schedule Type:** Lecture, Studio**FASR 319: Fashion Illustration II**

This sequel to FASR 317 is an elective course to challenge and refine the fashion design student's illustration skills as they relate to the professional job market. Extensive fashion-model studies will be combined with assignments similar to those found in today's industry. Professional presentation skills and portfolio development will be emphasized.

Credits: 3**College:** School of Design & Engineering**Prerequisites:** FASR 317 [Min Grade: D]**Schedule Type:** By Appointment, Lecture, Studio

Fashion Management (FASM)

FASM 3XX: FMM Specialization Course**Credits:** 3**College:** School of Business**Schedule Type:** Lecture**FASM 101: Global Fashion Insight**

Survey of the apparel industry presents a comprehensive overview of one of the most dynamic industries in the world including marketing strategies, product-line development, pre-production and production processes, quality assurance, international sourcing, supply chain management and distribution strategies. This course investigates the application of technology in all areas of the operations of an apparel enterprise. Survey establishes the basis for further study of the apparel industry. The term project, which simulates the formation and operation of an apparel enterprise, provides a theoretical as well as a practical learning experience.

Credits: 3**College:** School of Business**Schedule Type:** By Appointment - 1 student, Lab, Lecture, Lecture/Lab**FASM 201: Prototyping**

Students will develop a basic understanding of the apparel production prototyping process from brand categories to finished product. Students will identify and use appropriate equipment to construct one apparel and one non-apparel item as well as generating the accompanying technical paperwork. Any student who has received credit for FASD 211 or FASD 213 may not take this course.

Credits: 3**College:** School of Business**Schedule Type:** Lecture, Lecture/Studio Combination, Studio**FASM 211: Fashion Immersion**

Students will experience the fashion value chain by participating in a range of activities based in a major fashion city. Through a series of industry visits and activities they will be immersed in processes related to concept/design, product development, production, merchandising and customer relationship management. Students will integrate the knowledge they have gained and apply it to the development of a product. This course is for sophomores. Students with at least 30 completed credit hours and a 2.75 GPA or higher may apply to participate; seats are limited.

Credits: 3**College:** School of Business**Schedule Type:** Lecture**FASM 211N: Fashion Immersion**

Students will experience the fashion value chain by participating in a range of activities based in a major fashion city. Through a series of industry visits and activities they will be immersed in processes related to concept/design, product development, production, merchandising and customer relationship management. Students will integrate the knowledge they have gained and apply it to the development of a product. This course is for sophomores. Students with at least 30 completed credit hours and a 2.75 GPA or higher may apply to participate; seats are limited.

Credits: 3**College:** School of Business**Schedule Type:** Lecture

FASM 304: Visual Merchandising

Visual merchandising facilitates the communication of the retail brand to the consumer. In this course, students will learn the basic concepts, techniques and applications of visual merchandising for various retail venues.

Credits: 3**College:** School of Business**Schedule Type:** Lecture**FASM 305: Apparel Production****Credits:** 4**College:** School of Business**Prerequisites:** FASM 101 and (FASM 201 or FASD 211) [Min Grade: D]**Schedule Type:** Lab, Lecture**FASM 305N: Production****Credits:** 3**College:** School of Business**Prerequisites:** FASM 101 and (FASM 201 or FASD 211) [Min Grade: D]**Schedule Type:** Lab, Lecture**FASM 306: Digital Merchandising Models**

This course allows students to examine merchandising strategies in the digital platform. Students will learn the complexity of e-commerce systems by understanding the building blocks necessary for merchandising brands. In depth studies include branding and storytelling to maintain a loyal customer base, online visual merchandising elements, data analytics, ethical issues in the online retail space, social media influence on customer behavior and purchase patterns, costing, and assessing supply chain management strategies. Students will survey how different retailers incorporate innovation in the digital environment. Learning includes written and executive presentations to explore best practices in digital merchandising models.

Credits: 3**College:** School of Design & Engineering**Prerequisites:** FASM 101 and MKTG 102 [Min Grade: D]**Schedule Type:** Hybrid, Lecture, On-Line**FASM 308: Global Product Management**

Global Product Management is a combination of classroom lectures and experiential instruction in a global environment. Student's tour design houses, mills, dye houses, production facilities, and examine international retailers. Students learn how to assess manufacturers for compliance and engage in cultural activities. Another major component of the course is to observe the economic state of the apparel industry in the specified country and study sustainable methods for manufacturing apparel, home textiles and other products.

Credits: 3**College:** School of Business**Prerequisites:** TEXT 101 [Min Grade: D]**Schedule Type:** Lecture**FASM 319: Fashion Journalism**

Formerly JSINT-311: This course introduces students to the field of fashion journalism and supports the development of creative writing styles. Students will examine reporting, criticism and commentary about fashion published in newspapers and magazines; displayed on websites and blogs; and aired on radio and television. This course also analyzes the types of publications, writers, the audience that is targeted, the subjects covered and the purpose and function of coverage.

Credits: 3**College:** School of Business**Prerequisites:** WRIT 201 or WRIT 202 or WRIT 211 or WRIT 215 or WRIT 217 [Min Grade: D]**Schedule Type:** Lab, Lecture, Lecture/Lab**FASM 360: The Business of Licensing**

Licensing, building brand extensions, and adding services to the merchandise mix are strategies to enhance the brand's position at leading fashion companies. Licensing is a growing business format that has growing applications in many diverse markets. Fashion brands are identifying ways to maintain their intellectual property through copyrights, trademarks, and patents to support the brand's culture. This course will examine the laws and regulations for fashion licensing, assess the components of a license agreement, and present strategies for extending the product or service offerings in retailing.

Credits: 3**College:** School of Business**Schedule Type:** By Appointment - 1 student, Lecture**FASM 401: Apparel/Textile Quality Assur**

This course will develop an understanding of the intricate interdependence of fiber content, yarn properties, fabric structure and applied finish required to produce saleable products offering to the purchaser 'fair' value per dollar expenditure. Apparel Quality Assurance integrates the knowledge gained in textile, apparel, business and humanities courses to develop managerial talent in any 'cut and sew' aspect of the fashion industry. Fall only.

Credits: 3**College:** School of Business**Prerequisites:** (FASM 305 or FASM 305N) and STAT 201 and TEXT 301 [Min Grade: D]**Schedule Type:** Lecture**FASM 408: Apparel/Textile Sourcing**

Execution and delivery of a product in today's apparel supply chain occurs within a global environment. Understanding the complexities in establishing and maintaining sourcing strategies is a critical element in a student's portfolio of course work.

Credits: 3**College:** School of Business**Prerequisites:** FASM 101 or FASD 316 [Min Grade: D]**Schedule Type:** Lecture**FASM 437: Integrated Technology**

The course will analyze the various manufacturing technologies and their implications on management philosophy, employee relations and profitability through lectures and literature searches. The student will be a member of a team that will analyze and present to top management a feasible plan for integrating manufacturing technology.

Credits: 3**College:** School of Business**Schedule Type:** Lecture, On-Line**FASM 437OL: Integrated Fashion Technology****Credits:** 3**College:** School of Business**Schedule Type:** On-Line

FASM 451: Operations & Supply Chain Mgmt

This course provides a comprehensive survey of production and service operations management with an emphasis on the fashion/retail industry supply chain. It focuses on mathematical methods and the Case study approach to formulate, analyze and solve various supply chain problems. Areas of study include Decision Analysis, Forecasting techniques, Inventory and Scheduling models, Statistical Quality Control, Aggregate Planning, Material Requirements Planning, Linear Programming, Transportation and Transshipment problems. MS Excel will be used extensively in this course.

Credits: 3

College: School of Business

Prerequisites: (MGMT 104 or MGMT 301) and (STAT 201 or ABA 201) [Min Grade: D]

Schedule Type: Lecture, On-Line

FASM 470: Global Fashion Value Chain

This course is designed to demonstrate agile techniques for students to examine the interrelationship between sourcing, production, and quality assurance. The course will focus on selecting the appropriate partners and suppliers for producing products in various production environments. Students will also identify the proper protocol for instituting quality assurance and quality control processes such as standards for testing throughout the supply chain process. Further topics for improving customer satisfaction through quality assurance, sustainability and social compliance will be investigated.

Credits: 3

College: School of Business

Schedule Type: By Appointment - 1 student, Lecture

FASM 499: Apparel Merchandising Mgmt

Management of the merchandising function in an apparel company, including the development of a product line, design coordination, costing, sample making, specifications, resource selection, forecasting sales and planning inventory levels, promotion and coordination with sales and production are included.

Credits: 3

College: School of Business

Schedule Type: By Appointment - 1 student, Lecture

Finance (FIN)

FIN 101: Principles of Finance

Credits: 3

College: School of Business

Prerequisites: ACCT 101 and ECON 201

Schedule Type: Independent Study, Lecture

FIN 120: Entrepreneurial Acct & Finance

Credits: 3

College: School of Business

Schedule Type: Lecture

FIN 201: Acct & Fin for Nonfin Leaders

Students will learn to communicate comfortably regarding financial data, cash management, planning, budgets, profitability, solvency, and liquidity. Accounting topics covered include accounting and the business environment, recording business transactions, the adjusting process, completing the accounting cycle, internal control and cash, receivables, investments, current liabilities and payroll, long-term liabilities, stockholders' equity, the statement of cash flows. Finance topics covered include financial statement analysis; cost management systems such as activity-based, just-in-time, and quality management; cost-volume-profit analysis, variable costing; and master budgets.

Credits: 3

College: School of Business

Schedule Type: By Appointment - 1 student, Lecture, On-Line

FIN 301: Financial Management

This course provides an introduction to finance that examines the role of the financial decision maker at the corporate level. Four basic questions are examined: the goal of the firm, investment decisions of the firm, financing decisions of the firm and dividend decisions of the firm. The technique of discounted cash-flow analysis is developed and emphasized as it relates to corporate financial decisions.

Credits: 3

College: School of Business

Prerequisites: ACCT 101 and (STAT 201 or ABA 201) [Min Grade: D]

Schedule Type: Lecture

FIN 303: Intermediate Financial Mgmt

An in-depth study of financial analysis and planning, asset management and capital structures. Financial decision making is studied by means of finance cases. Computerized financial analyses are part of the course.

Credits: 3

College: School of Business

Prerequisites: FIN 301 [Min Grade: D]

Schedule Type: Lecture

FIN 318: International Finance & Dev

This course explores interrelations between the economic theory of growth/development and financial applications in emerging countries. Case studies are used to analyze financial issues faced by corporations operating in a global environment. Main topics covered include balance of payments, exchange rate determinants, international financial markets, managing exchange rate risk exposure using derivatives, and foreign direct investment.

Credits: 3

College: School of Business

Prerequisites: FIN 301 [Min Grade: D]

Schedule Type: Lecture

FIN 321: Investments & Portfolio Mgmt

This course explores the process of comparative security valuation analysis. The emphasis is on risk-return trade-off, principles of portfolio management and the process of security analysis.

Credits: 3

College: School of Business

Prerequisites: FIN 301 [Min Grade: D]

Schedule Type: Lecture

FIN 322: Capital Mkts & Fin Institutions

This course explores depository and non-depository financial intermediaries, flow of funds into the money and capital markets.

Credits: 3

College: School of Business

Prerequisites: FIN 301 [Min Grade: D]

Schedule Type: Lecture

FIN 323: Financial Decision Making**Credits:** 3**College:** School of Business**Prerequisites:** STAT 311 or STAT 211 or STAX 211 [Min Grade: D]**Schedule Type:** By Appointment - 2 students, By Appointment - 3 students, By Appointment - 4 students, Lecture, On-Line**FIN 381: Independent Study in Finance**

This course is an intensive independent study of a chosen subject. The student is expected to read a substantial number of major works in the field, may be required to do primary research and must prepare a critical documented paper. Permission required. See the statement on Independent Study under 'Academic Policies.'

Credits: 3**College:** School of Business**Schedule Type:** Independent Study**FIN 411: Personal Fin Plann & Risk Mgt.**

In a seminar setting, drawing on the knowledge of the fundamentals and advanced concepts studied in finance classes, skills will be developed to become a better decision maker by learning how to integrate the various topics of finance. Through problem-oriented exercises, an appreciation of the importance and know-how of anticipating, recognizing and adapting to external forces in the decision-making process and organization will be developed. Finance as a functional area is dynamic, and emphasis will be placed on incorporating the most recent academic and practitioner literature, which is of theoretical and practical importance in the decision-making process. This challenging course is built around readings, finance cases, research papers and problem sets; and includes group and individual assignments and written and oral presentations.

Credits: 3**College:** School of Business**Prerequisites:** FIN 321 [Min Grade: D]**Schedule Type:** By Appointment - 1 student, Lecture**FIN 412: Financial Modeling**

This course will cover several areas of developing and applying financial modelling.

Credits: 3**College:** School of Business**Prerequisites:** FIN 321 [Min Grade: D]**Schedule Type:** Lecture, On-Line

Finance (Online) (FINX)

FINX 201: Acct & Fin for Nonfin Leaders

Students will learn to communicate comfortably regarding financial data, cash management, planning, budgets, profitability, solvency, and liquidity. Accounting topics covered include accounting and the business environment, recording business transactions, the adjusting process, completing the accounting cycle, internal control and cash, receivables, investments, current liabilities and payroll, long-term liabilities, stockholders' equity, the statement of cash flows. Finance topics covered include financial statement analysis; cost management systems such as activity-based, just-in-time, and quality management; cost-volume-profit analysis, variable costing; and master budgets.

Credits: 3**College:** School of Business**Schedule Type:** By Appointment - 2 students, On-Line**FINX 323: Financial Decision Making****Credits:** 3**College:** School of Business**Schedule Type:** On-Line

First Year Seminar (FYS)

FYS 100: Pathways Seminar

The Pathways Seminar provides the opportunity for all first-time freshmen to learn and practice strategies that will enable their success at Thomas Jefferson University and beyond. Students will create personal, professional, and academic goals, as well as success strategies for learning and career development. Each course section will engage with a specific theme determined for the entering class of that year. Through engagement with these themes, students will explore the role of the professional in the community and the world, and engage with the mission and goals of a Thomas Jefferson University education.

Credits: 1**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture, On-Line**FYS 198: Transfer Pathways Seminar****Credits:** 1**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture

French (FREN)

FREN 101: Beginning French I

A beginner's course designed for students with very little or no knowledge of the language. The focus is on basic oral expression, listening comprehension and acquiring simple reading and writing skills, so that students can gain confidence in the language and to begin to have conversations. The course will also develop cultural understanding, a key element to language learning, through the analysis of authentic visual media, written materials and cross-cultural interactions.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**FREN 102: Beginning French II**

A beginner's course designed for students who have completed one semester of college-level language or the equivalent. The focus is on oral expression, listening comprehension and the acquisition of simple reading and writing skills, so that students can gain confidence in the language and conduct conversations and other social interactions in the language with some level of ease. The course will also develop cultural understanding, a key element to language learning, through the analysis of authentic visual media, written materials and cross-cultural interactions.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** FREN 101**Schedule Type:** Lecture

FREN 201: Intermediate French I

A beginner's course designed for students who have completed two semesters of college-level language or the equivalent. The focus is on advancing oral expression, listening comprehension and the development of reading and writing skills, so that students can gain confidence and express themselves fluidly entirely in the target language. The course will also develop cultural understanding, a key element to language learning, through the analysis of authentic visual media, written materials and cross-cultural interactions.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**FREN 202: Intermediate French II****Credits:** 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** FREN 201**Schedule Type:** Lecture**FREN 398: French Elective****Credits:** 0.5**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture

General Studies (GNST)

GNST 199: Independent Study**Credits:** 1-3**College:** Jefferson College of Health Professions**Schedule Type:** Independent Study**GNST 499: Independent Study****Credits:** 1-3**College:** Jefferson College of Health Professions**Schedule Type:** Independent Study

Genetics (GE)

GE 437: Human Genetics**Credits:** 2**College:** Jefferson College of Life Sciences**Schedule Type:** Clinical, Lecture, On-Line, Seminar

German (GER)

GER 101: Beginning German I

A beginner's course designed for students with very little or no knowledge of the language. The focus is on basic oral expression, listening comprehension and acquiring simple reading and writing skills, so that students can gain confidence in the language and to begin to have conversations. The course will also develop cultural understanding, a key element to language learning, through the analysis of authentic visual media, written materials and cross-cultural interactions.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**GER 102: Beginning German II**

A beginner's course designed for students who have completed one semester of college-level language or the equivalent. The focus is on oral expression, listening comprehension and the acquisition of simple reading and writing skills, so that students can gain confidence in the language and conduct conversations and other social interactions in the language with some level of ease. The course will also develop cultural understanding, a key element to language learning, through the analysis of authentic visual media, written materials and cross-cultural interactions.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture

Global Citizenship (GCIT)

GCIT 2XX: Global Citizenship Placeholder**Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**GCIT 198: Transfer Global Citizenship****Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**GCIT 200: War&Political Violence GlobSoc**

This course introduces students to the study of political violence with a particular focus on war. Understanding the motivations behind acts of violence, societal and human costs of violence, types of violence used by state and nonstate actors and its physical, psychological and emotional effects on everyday people across different global societies allows us to learn more about the world we live in. This course explores historical and contemporary cases of gang violence, conflicts, terrorism, torture, civil wars, revolutions, riots and militarism from around the world.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** (AMST 114 or AMST 198 or AVIS 198 or DBTU 114 or AVIS 101 or DBTU 198) and (WRIT 101 or WRIT 101G or WRIT 101S) [Min Grade: D-]**Schedule Type:** Lecture**GCIT 210: Human Rights**

WRITING INTENSIVE: The course will examine the question of whether there are certain rights that we all possess as human beings and the prominence of these rights in international relations. Students will monitor human-rights violations in the United States and other countries in order to determine how much we have achieved as a world community and how far we have yet to go.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** (WRIT 101 or WRIT 101G or WRIT 101S) and (DBTU 114 or DBTU 198 or AMST 114 or AMST 198 or AVIS 198 or AVIS 101) [Min Grade: D-]**Schedule Type:** By Appointment - 1 student, Lecture, On-Line

GCIT 211: The Global Economy

The course will emphasize the intersection between global political relations and global economics, and how the two together impact social relations worldwide. Various complementary and competing political and economic perspectives (from capitalist to socialist) will be used to address recent trends in the development of a global economy, international trade, the formation of regional blocs such as NAFTA and the EU, and North-South political/economic relations.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** (WRIT 101 or WRIT 101G or WRIT 101S) and (DBTU 114 or DBTU 198 or AMST 114 or AVIS 198 or AMST 198 or AVIS 101) [Min Grade: D-]**Schedule Type:** Lecture, Study Abroad**GCIT 214: Global Environmental Citizenship**

What are our obligations as global citizens for addressing environmental issues that threaten Earth's ecosystems and climate? The Environment and Global Citizenship examines the causes, development and current impacts of major environmental problems and considers the possibilities and challenges of addressing them through global cooperation and technological innovation. Students will apply concepts of equity and environmental justice as they analyze the international dynamics responsible for the unequal distribution of responsibility and suffering related to environmental degradation around the world.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** (WRIT 101 or WRIT 101G or WRIT 101S) and (DBTU 114 or DBTU 198 or AMST 114 or AVIS 198 or AMST 198 or AVIS 101) [Min Grade: D-]**Schedule Type:** Lecture**GCIT 215: Global Immigration**

In this course, students will examine theories of, and debates surrounding, global immigration – looking at the similarities and differences in its processes, causes, and outcomes, as well as the contrasting responses that immigrants encounter in their host nations. Topics will include the reasons why people migrate and how immigration changes countries, institutions, communities, and the immigrants themselves. Students will draw from material learned in other Hallmarks classes – including critical reading, writing, and historical skills, as well as knowledge of social inequalities and challenges – to think holistically about global immigration.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** (WRIT 101 or WRIT 101G or WRIT 101S) and (DBTU 114 or DBTU 198 or AMST 114 or AVIS 198 or AVIS 101 or AMST 198) [Min Grade: D-]**Schedule Type:** Lecture**GCIT 216: Politics of Global Supply Chains**

Businesses are increasingly sourcing, producing, or supplying both intermediate and final goods across various global locations. These business practices, which coincided with tremendous increases in the globalization of trade and investments in the last few decades, have created a complex network known as global supply chains. This course surveys the development of these global supply chains within the context of local and international power dynamics. The course explores the political economy of these global production and distribution networks while examining the political, cultural, and socio-economic outcomes of these networks. This course can be counted towards the Design Humanities certification.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** (WRIT 101 or WRIT 101G or WRIT 101S) and (AMST 114 or DBTU 114 or AVIS 101 or AVIS 198 or AMST 198 or DBTU 198) [Min Grade: D-]**Schedule Type:** Hybrid, Lecture, On-Line**GCIT 217: Global Health**

This course surveys the history, current practices, and future of global health. Students will explore the interconnections between health, economics, policy, and power at institutional and individual levels, and consider the methods used to evaluate, protect and promote global health. Topics such as cancer, HIV/AIDS, obesity, lead poisoning, mental disorders, and tobacco use will be used to illustrate the principles and dilemmas of global health. The course also examines how local, national, and international factors, including public health agencies, international agreements and institutions, and non-governmental funders influence global health. This course can be counted towards the Health Humanities certification.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** (WRIT 101 or WRIT 101G or WRIT 101S) and (AMST 114 or DBTU 114 or AVIS 101 or AVIS 198 or AMST 198 or DBTU 198) [Min Grade: D-]**Schedule Type:** Hybrid, Lecture, On-Line**GCIT 218: Capitalism & Socialism in World**

As competing economic systems and theories, capitalism and socialism have shaped the modern age since at least the Industrial Revolution, transforming the world and offering radically different visions for how to achieve ideals such as social equality, prosperity, happiness, freedom, democracy, and human rights. Often thought of as opposites, in practice capitalism and socialism have long been intertwined, and every nation in the world today incorporates some of the logic of each. This course invites students to explore how these economic ideas, in both their radical and mundane forms, have shaped societies through their intersection with topics such as wealth, poverty, labor, exploitation, politics, technology, religion, healthcare, education, gender equality, social welfare, colonization, racism, slavery, and international relations.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** (WRIT 101 or WRIT 101G or WRIT 101S) and (AMST 114 or AMST 198 or AVIS 101 or AVIS 198 or DBTU 114 or DBTU 198) [Min Grade: D-]**Schedule Type:** Hybrid, Lecture, On-Line

GCIT 225: Global Politics

This course provides an overview of the forces that are shaping international politics and economics. This course will help students understand the roles of international institutions such as the United Nations, the World Trade Organization and the International Monetary Fund, as well as non-governmental actors such as Amnesty International and al Qaeda. Students will also examine the process of economic globalization in order to understand its varying impacts on different world regions.

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: (WRIT 101 or WRIT 101G or WRIT 101S) and (DBTU 114 or DBTU 198 or AMST 198 or AVIS 198 or AVIS 101 or AMST 114) [Min Grade: D-]

Schedule Type: Lecture, On-Line

GCIT 298: Transfer Global Citizenship

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Transfer Credit

GCIT 398: Transfer Global Citizenship

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

Global Diversity (GDIV)

GDIV 1XX: Global Diversity Placeholder

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

GDIV 2XX: Global Diversity Placeholder

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

GDIV 198: Transfer Global Diversity

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture, Transfer Credit

GDIV 200: Comp Mod Globl Cultures of Mod

This course introduces students to modernity as a global phenomenon. Sometimes, European influence was dominant in the global circulation of modernity. However, just as often, modernity reflected diverse local/ethnic preferences and practices. The course is multi-disciplinary, drawing from history, literary studies, anthropology, art and design history, and political science.

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: (WRIT 101 or WRIT 101G or WRIT 101S) and (AMST 114 or DBTU 114 or AVIS 101 or DBTU 198 or AVIS 198 or AMST 198) [Min Grade: D-]

Schedule Type: Lecture

GDIV 221: Environment & World Culture

Global religions, cultures, and philosophies, both past and present, have interpreted the relationship between human society and the natural environment in a variety of ways. In this course we will study attitudes towards the environment, its protection, and sustainability through the lenses of several major religions and philosophies, and will compare how these worldviews offer differing perspectives on the role of "Nature" in everyday life.

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: (WRIT 101 or WRIT 101G or WRIT 101S) and (AMST 114 or AVIS 101 or DBTU 114 or AVIS 198 or AMST 198 or DBTU 198) [Min Grade: D-]

Schedule Type: Lecture

GDIV 229: Intercultural Encounters

The twentieth and twentyfirst centuries have produced an unprecedented level of global migration. As individuals and groups have moved around the world, different cultures have come into close, and often uncomfortable, contact. Through the concepts of migration, diaspora, and exile this course examines the literature, film, and music that express the challenges of these encounters.

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: (WRIT 101 or WRIT 101G or WRIT 101S) and (AMST 114 or DBTU 114 or AVIS 101 or AVIS 198 or AMST 198 or DBTU 198) [Min Grade: D-]

Schedule Type: Lecture

GDIV 231: The Spanish Speaking World

This course examines the roles of literature, cinema, and other cultural forms in expressing Latin American and Hispanic cultures. Through direct examination of cultural artifacts, students gain insight into diverse cultures and experience different perspectives. As well as investigating specific cultures and cultural production, students will explore the interaction of distinct groups and societies to discover the dynamics and effects of cross-cultural interactions. Prerequisites :WRIT-101, DBTU-114

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: (WRIT 101 or WRIT 101G or WRIT 101S) and (AMST 114 or DBTU 114 or AVIS 101 or AVIS 198 or AMST 198 or DBTU 198) [Min Grade: D-]

Schedule Type: By Appointment - 1 student, By Appointment - 2 students, By Appointment - 3 students, Lecture

GDIV 233: World Cinemas

This course examines cinematic works from around the world in order to gain insight into the social and cultural values of diverse societies. After acquiring some of the basics of film theory and considering how to watch and analyze a film, we will analyze films from a variety of world regions. Students will identify how cultural differences are reflected in cinematic works while also considering the impact of cross-cultural influences in the world of filmmaking. The focus on the cultural dimensions of cinema in this Global Diversity course is designed to help students fulfill the Empathy outcome in the Hallmarks Program. Prerequisites: DBTU-114 and WRIT-201/202

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: (WRIT 101 or WRIT 101G or WRIT 101S) and (DBTU 114 or DBTU 198 or AVIS 101 or AVIS 198 or AMST 114 or AMST 198) [Min Grade: D-]

Schedule Type: Lecture

GDIV 234: Global Cultures of Health

This course will examine the social and cultural foundations of health and wellbeing, the experience and distribution of illness, and interventions related to healing and public health. Even as illness and health are universal concepts found globally, the localized social and cultural bases behind these can vary greatly. In this course, we will read real-life accounts of those seeking health and healing in a variety of global contexts, as well as the methods that researchers use to collect such data and the theories that help them to understand their findings. As such, materials in this course have clear relevance for students who wish to learn more about the complexity of what constitutes sickness, well-being, pathology, and diagnosis in cultures throughout the world.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** (WRIT 101 or WRIT 101G or WRIT 101S) and (AMST 114 or DBTU 114 or DBTU 198 or AVIS 198 or AVIS 101 or AMST 198) [Min Grade: D-]**Schedule Type:** Lecture**GDIV 235: World Religions**

This course provides an introduction to the historical development, scriptures, practices, and contemporary cultural influence of various world religions. It will cover some selection of Hinduism, Daoism, Confucianism, Judaism, Christianity, Islam, and other religious traditions. Students will explore the role of religion in shaping different cultures. This Global Diversity course is designed to help students fulfill the Empathy outcome in the Hallmarks Program.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** (WRIT 101 or WRIT 101G or WRIT 101S) and (DBTU 114 or AMST 114 or AVIS 101 or AVIS 198 or DBTU 198 or AMST 198) [Min Grade: D-]**Schedule Type:** Lecture, On-Line**GDIV 236: Global Cultures of Beauty**

'Beauty is in the eye of the beholder.' Societies through time and in different cultural contexts have placed value on beauty, making it a currency and a source of power and privilege. Beauty is classed, sexed and racialized, which demonstrates both its power and fragility. The meanings and perceptions of beauty are bound to geographies, temporalities, and particular histories. What is considered beautiful in the West is not necessarily beautiful in the East, and yet Western colonialism and imperialism have impacted ideals of beauty across the world. This course engages with theories and practices of beauty and aesthetics across different cultures and places while paying particular attention to factors such as capitalism, colonialism, race, class, gender, sexuality, religion, media and their interactions with notions of beauty. Through scholarly texts, film, and artwork, the class will grapple with some of these questions: What is beauty? How is beauty gendered and sexed? Why does beauty matter? What are some of the phenomena that affect people's understanding of beauty and aesthetics? This course can be counted towards the Design Humanities certification.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** (WRIT 101 or WRIT 101G or WRIT 101S) and (AMST 114 or DBTU 114 or AVIS 101 or AVIS 198 or AMST 198 or DBTU 198) [Min Grade: D-]**Schedule Type:** Hybrid, Lecture, On-Line**GDIV 333: Pop Culture in Global Society**

This course focuses on the various ways in which popular culture, expressed through film, television, social media, and print media and other realms are used as rhetorical devices, employed to shape how peoples around the world view one another. Through the reading and analysis of a variety of images from the U.S. and abroad, students will gain a better understanding of how popular media serve to build and express national identity; further, they will also gain substantive knowledge about some of the political, social, economic, religious, and other factors which underpin relations between peoples around the globe.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** (WRIT 101 or WRIT 101G or WRIT 101S) and (AMST 114 or DBTU 114 or AVIS 101 or AVIS 198 or AMST 198 or DBTU 198) [Min Grade: D-]**Schedule Type:** Lecture

Global Portfolio (GLOB)

GLOB 100: Integrative Sem for Glob Persp

This seminar is the culminating experience for students registered for the Hallmarks Distinction in Global Perspectives. It allows students to curate and complete their e-portfolios. The seminar will require students to reflect on the content of the courses taken to complete the Distinction. As a summative evaluation, students will also engage in reflections on their global experiences from taking the Distinction. At the end of the seminar students will present their completed e-portfolios for instructor evaluations.

Credits: 0.5**College:** Jefferson College of Humanities & Sciences**Schedule Type:** On-Line**GLOB 103: Compl of the Glob Persp Distct****Credits:** 1**College:** Jefferson College of Humanities & Sciences**Schedule Type:** By Appointment - 1 student, Lecture

Graphic Design (GRPH)

GRPH 3XX: Graph Design Designated Elec**Credits:** 3**College:** School of Design & Engineering**Schedule Type:** Lecture**GRPH 102: Intro to Graphic Design**

This course is an introduction to the design process through methods, materials and vocabulary used in the Graphic and Web Design professions. This studio course emphasizes form analysis; visual abstraction; communication methods; visual metaphor, and concepts in design

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Studio

GRPH 110: Digital Imagn for Graphic Desg

This course introduces Adobe Illustrator, Adobe InDesign and Adobe Photoshop as they are used in the graphic design industry. Students work through a series of exercises and projects exploring the image creation and manipulation abilities of Photoshop and Illustrator followed by an introduction of InDesign as a page layout program

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture, Lecture/Studio Combination, Studio

GRPH 201: Design III for Graph Dsgn Comm

This course introduces the student to typography and its uses through sequential studies to support the building of a visual vocabulary.

Students will examine the individual letterform, letters in combination, and large bodies of text with a concentration on the grid, hierarchy, legibility, and clarity of conceptual communication

Credits: 3

College: School of Design & Engineering

Prerequisites: GRPH 102 or DSGF 203 or ARFD 102 or INDD 102 [Min Grade: C]

Schedule Type: By Appointment - 1 student, Lecture/Studio Combination, Studio

GRPH 202: Design IV for Graph Dsgn Comm

This course will build on learning objectives and typographic skills. Emphasis will be placed on the complex interplay of visual meaning and form and typographic sensitivity within a historical context

Credits: 3

College: School of Design & Engineering

Prerequisites: GRPH 201 [Min Grade: C]

Schedule Type: By Appointment - 1 student, Lecture/Studio Combination, Studio

GRPH 206: Design History Study Abroad

Design History Study Abroad will provide students with the opportunity to experience first-hand and in person, accounts of extraordinary international designers, important design movements and architecture dating from the mid- 1700's to the present day. Learning about these contributions to international culture, art and design history-outside of the textbooks, outside of the classroom, and in full color-will help to bring the foundation of understanding of design to life. Studying abroad will allow the student to experience the past while obtaining inspiration and insight into the future

Credits: 3

College: School of Design & Engineering

Prerequisites: (VDES 101 or ARFD 101) and (DRAW 101 or VDRW 101) and (HIST 114 or DBTU 114 or AMST 114) and (WRIT 101 or WRIT 101G) [Min Grade: D]

Schedule Type: Lecture

GRPH 208: History of Graphic Design

This course will chronicle the evolution of modern Graphic Design through an in-depth survey of human visual communication, beginning with the invention of writing and communication, through the creation of the Gutenberg Press and culminating with the study of the contemporary digital age. Discussion will focus on the function of Graphic Design to communicate and meet human needs with an emphasis on the influence of technology and the evolving role of design in business.

Credits: 3

College: School of Design & Engineering

Prerequisites: (WRIT 101 or WRIT 101G or WRIT 101S) and (ARTH 101 or ARTH 102) [Min Grade: D]

Schedule Type: By Appointment - 1 student, Lecture

GRPH 301: Design V for Graph Design Comm

This course will focus on the understanding and creation of cohesive corporate identity systems through a systems approach to design with application to such items as a logo, stationery system, packaging, advertisement and other related collateral. The continued investigation of typography and its application will be stressed.

Credits: 3

College: School of Design & Engineering

Prerequisites: GRPH 202 [Min Grade: C]

Schedule Type: Lecture/Studio Combination, Studio

GRPH 302: Design VI for Graph Dsgn Comm

This course will build upon knowledge and skills obtained in GRPH-301. Students will respond to complex corporate identity projects through a systems approach. Students will consider solutions that work across multiple media and experiment with unconventional points of contact with the desired target market

Credits: 3

College: School of Design & Engineering

Prerequisites: GRPH 301 [Min Grade: C]

Schedule Type: Lecture/Studio Combination, Studio

GRPH 305: Exhibit Design and Signage

This course concentrates on the adaptation of graphic skills to three-dimensional structures and environments. Students will study structures and commercial systems available for product display, exhibit design and signage.

Credits: 3

College: School of Design & Engineering

Prerequisites: GRPH 202 [Min Grade: C]

Schedule Type: Lecture, Studio

GRPH 308: Graphic Design Theory

The Design Theory course will introduce students to contemporary Graphic Design theories and discourse. It will include theoretical aspects of design, including: making, visualizing and reading. Graphic Design and visual communication theories will be compared to those in other design disciplines. Students will use a case study approach to investigate contemporary design and to write critically about it from their point-of-view

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture, Studio

GRPH 310: Digital Imaging & Photo Manip

Credits: 3

College: School of Design & Engineering

Prerequisites: VDES 101 or INTD 202 or GRPH 202 or INDD 202 or ARCH 202 [Min Grade: D]

Schedule Type: Lecture, Studio

GRPH 320: Package Design

This course will allow students to apply graphic knowledge to dimensional structures. Emphasis will be placed on the interplay between graphics and structures and the ability of structural design and materials to enhance conceptual communication

Credits: 3

College: School of Design & Engineering

Prerequisites: GRPH 202 [Min Grade: C]

Schedule Type: Lecture, Lecture/Studio Combination, Studio

GRPH 341: Illustration

This course includes original image making in a variety of techniques and media, including exploration of both computer design and traditional methods. Emphasis is placed on unity of concept and media and effective use of visual translation and metaphor

Credits: 3**College:** School of Design & Engineering**Prerequisites:** GRPH 202 [Min Grade: C]**Schedule Type:** Lecture, Lecture/Studio Combination, Studio**GRPH 381: Ind Study: Computer Graphics**

This course will allow students to pursue individual areas of interest while working jointly with a faculty member. Enrollment is subject to the availability and approval of both the program director and faculty member. Permission required. See the statement on Independent Study under 'Academic Policies.

Credits: 3**College:** School of Design & Engineering**Prerequisites:** GRPH 301 [Min Grade: D]**Schedule Type:** By Appointment - 1 student, Independent Study**GRPH 398: Graph Design Designated Elec****Credits:** 3**College:** School of Design & Engineering**Schedule Type:** Lecture**GRPH 401: Design VII for Graph Dsgn Comm**

This course will focus on developing design concepts and establishing a visual language that will be applied to various formats while utilizing a systems design approach. The character of the project will support a unified theme/concept/idea for an identified client that is geared to a specific market or interest group. There will also be research and conceptual development work towards a written proposal for faculty review in preparation for the following semester's Capstone in Graphic Design projec

Credits: 6**College:** School of Design & Engineering**Prerequisites:** GRPH 302 [Min Grade: C]**Schedule Type:** Studio**GRPH 407: Philadelphia Univ Desgn Wkshop**

This course will provide students with an opportunity to work on real projects for real clients (University, non-profit and/or industry), thus offering a chance to gain valuable, practical experience while still in school. Students will work in interdisciplinary teams, gain exposure to client relations and the professional presentation of their work and be exposed to all levels of production as it relates to these projects. The course is open to junior and senior-level Graphic Design Communication and Interactive Design and Media students only upon prior portfolio review by the instructor.

Credits: 3**College:** School of Design & Engineering**Prerequisites:** GRPH 301 or DIGD 301 [Min Grade: C]**Schedule Type:** Lecture, Studio**GRPH 408: Advanced Publication Design**

This course will focus on publication design and the continued development of projects with increased conceptual and physical complexity. The relationship between editorial content and design format will be explored. Original image- making through illustrative, photographic or any other means will be encouraged. The application of charts, graphs, tables and quantitative information will be investigated

Credits: 3**College:** School of Design & Engineering**Prerequisites:** GRPH 202 [Min Grade: C]**Schedule Type:** Lecture, Studio**GRPH 409: Issues in Information Design**

This course introduces issues in the design and communication of typical information categories through a range of design, media, and scales. Topics are raised in the categories of cartography, comparative data and diagrams. Emphasis is placed on exploration, understanding and process rather than on finished design and craft.

Credits: 3**College:** School of Design & Engineering**Prerequisites:** GRPH 202 or INDD 202 [Min Grade: D]**Schedule Type:** Lecture, Studio**GRPH 499: Cap in Graph Design Comm**

Students develop projects independently and are required to demonstrate ability and understanding of communication design theory, process and principles. The final project requires research of topic, design exploration, development and final professional presentation. The syllabus also requires the development and presentation of a resume and a final portfolio of work selected from projects students have produced during their studies in the program.

Credits: 6**College:** School of Design & Engineering**Prerequisites:** GRPH 401 [Min Grade: C]**Schedule Type:** Studio

Green Home Basics (CGHB)

Health (HLTH)

Health Administration (HLAD)

Health Care Administration (HCA)

HCA 300: Health Services Del & Org**Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Independent Study, Lecture, On-Line**HCA 302: Hlth Care Class Systems****Credits:** 3**College:** Jefferson College of Health Professions**Prerequisites:** GNST 120 or GNST 101**Schedule Type:** Lecture, Lecture/On-Line, On-Line**HCA 410: Medical Practice Mgmt****Credits:** 3**College:** Jefferson College of Health Professions**Prerequisites:** HCA 302**Schedule Type:** Independent Study, Lecture, Lecture/On-Line, On-Line

Health Care Administration ONL (HCAX)

Health Policy (MD) (HPOL)

HPOL 402: Achieving Competency Today-ACT

Credits: 6

College: Jefferson College of Population Health

Schedule Type: Clinical

Health Sciences (HSC)

HSC 110: Intro to Health Professions

This course provides a survey of health careers including career planning and career development. Covers rights, responsibilities, and skills required for career pathways in diagnostic, therapeutic, and support services careers, health information careers, and biotechnology research and development careers.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Hybrid, Lecture, On-Line

HSC 120: Medical Terminology

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Hybrid, Lecture, On-Line

HSC 198: Health Sciences Elective

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

HSC 200: Structure of Human Body

Credits: 3

College: Jefferson College of Health Professions

Prerequisites: GNST 120 or HSC 120 or HSCX 120 [Min Grade: D]

Schedule Type: Lecture, On-Line

HSC 201: Human Disease and Treatment

Credits: 3

College: Jefferson College of Health Professions

Prerequisites: (GNST 120 or OTA 412 or HSC 120) and (CODP 200 or HSC 200 or HSCX 200 or BIOL 111 or BIOL 202) [Min Grade: D]

Schedule Type: Lecture, On-Line

HSC 498: Health Sciences Capstone

This course serves as a capstone course in the Health Sciences program. Students will have the opportunity to explore current issues related to their specific disciplines and health care in general. In addition, each student will prepare a portfolio assessment providing an opportunity to integrate and synthesize their growth in knowledge and skills over the course of the program. Identification of goals for continued professional growth and lifelong learning will be identified.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: By Appointment - 4 students, Hybrid, Lecture, On-Line

Health Sciences (JCHP) (HSCI)

HSCI 3XX: Health Sci Elective

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

HSCI 100: Intro to Health Professions

This course familiarizes the student with the scope, education, certification, legislation, and roles of a variety of health care professions. The structure of the U.S. health care system, along with current issues and trends related to that system, is discussed. Students review requirements for completing clinical hours in HSCI-230 and HSCI-320.

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: Hybrid, Lecture, On-Line

HSCI 198: Health Sciences Transfer

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

HSCI 201: Healthcare Career Read & Expltn

This course helps students to further develop career readiness skills through a series of in-class activities and a week-long international trip with a healthcare focus. Course topics focus on career development best practices from personal career assessment and goal setting to a review of occupations in a range of healthcare settings. During the 1-week study away component of the course, students will explore health-related occupations in another country.

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: Hybrid, Study Abroad

HSCI 225: Applied Statistics

This course provides an introduction to statistics concepts and reasoning. It represents an introduction to the field of epidemiology in the context of health science. Students explore the basics of descriptive and inferential statistics with an emphasis on interpretation of statistical results, data management and generation of tables and graphs that can inform reports, evaluations, and quality improvement efforts. Applications include estimation of confidence intervals; testing statistical hypotheses for population means, proportions, and variances; and use of non-parametric tests. Students learn to use MS Excel as a software tool to enter and analyze data.

Credits: 3

College: Jefferson College of Health Professions

Prerequisites: MATH 102 or MATH 103 or MATH 110 or MATH 111 or MATH 112 [Min Grade: D]

Schedule Type: Hybrid, Lecture, On-Line

HSCI 230: Intro to Healthcare

This course introduces students aspiring to health careers to the basic principles of human interaction in the clinical setting. Ethics and current issues related to healthcare delivery are discussed. This course requires patient contact experience in a healthcare facility. Students may be required to obtain legal and health clearances to complete clinical hours. The costs for these clearances are the student's responsibility. Not to be taken concurrently with HSCI-320 except by permission of program director.

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Hybrid, Lab, Lecture, Lecture/Lab, On-Line

HSCI 231: Intro to Health Care & Comm

This course explores current issues in health care, and principles of patient-provider communication in clinical settings. Designed for pre-health profession students, this course includes required patient contact experience in a healthcare setting.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Hybrid, Lecture, Seminar

HSCI 301: Health, Law & Ethics

This course provides students with the foundation to recognize, understand, and resolve legal and ethical issues associated with contemporary healthcare. It represents an introduction to the US legal system and the basics of ethical and bioethical issues. Students explore liability, conflict management, the consent process, and the business of medicine, privacy and the role of an ethics. Additionally, students debate the ethical and legal consequences of contemporary health-related issues (such as end-of-life dilemmas, surrogacy, and organ donation).

Credits: 3**College:** Jefferson College of Health Professions**Prerequisites:** WRIT 201 or WRIT 202 [Min Grade: D]**Schedule Type:** Hybrid, Lecture, On-Line**HSCI 302: Clin Research in Emerg Med**

This course, designed for students in undergraduate health science programs, trains students to conduct clinical research studies using a combination of didactic and hands-on learning. Students will develop the necessary skills to identify potential candidates, perform interviews, obtain informed consent, carry out data collection, and process specimens according to study protocols. Students work closely with emergency physicians, nursing staff, and research coordinators on a wide range of studies including multicenter NIH-funded and industry-sponsored clinical trials. In addition, students will participate in a variety of clinical skills sessions taught by emergency medicine faculty, including wound management, ultrasonography, as well as workshops on design in medicine hosted by JeffDESIGN faculty. STUDENTS MUST OBTAIN PERMISSION FROM THE HSCI PROGRAM DIRECTOR FOR ENROLLMENT. Students will be invited for a brief interview with the Course Director to receive approval to register for the course. During the interview, students will need to show proof of completion and approval of hospital credentialing requirements at least 8 weeks prior to the start of the term.

Credits: 3**College:** Jefferson College of Health Professions**Prerequisites:** BIOL 202 and BIOL 202L [Min Grade: B-]**Schedule Type:** By Appointment - 1 student, By Appointment - 2 students, By Appointment - 3 students, By Appointment - 4 students, Hybrid, Lecture, On-Line**HSCI 304: Nutrition and Health**

This lecture and case-based discussion course provides students with an overview of principles of nutrition and the role health care providers play in the support of healthy eating goals. It has been estimated that over 1/3rd of the U.S. population is obese, with children becoming increasingly susceptible. Through lecture, research, and presentations, the concepts of the life cycle, growth and development, and how nutrition interfaces with all aspects of these processes will be presented. The major determinants of health, the causes of disease, and the impact of nutrition counseling on disease prevention and treatment will be discussed with an emphasis on supportive nutritional counseling.

Prerequisite: BIOL-103/L or BIOL-110/L**Credits:** 3**College:** Jefferson College of Health Professions**Prerequisites:** (BIOL 103 and BIOL 103L) or (BIOL 112 and BIOL 112L)

[Min Grade: D]

Schedule Type: Hybrid, Lecture, On-Line**HSCI 305: Concepts in Fitness & Wellness**

The link between exercise and disease prevention or progression has been well established. Yet while most Americans believe that physical activity can promote better health, approximately half of all US adults do not achieve the recommended amount of daily physical activity. Through lecture, research, and hands-on skills this course aims to give students in health and science majors the background in exercise physiology, fitness and wellness principles, and measure of physical fitness in order to recommend and implement a sound fitness and wellness program for people of all ages to prevent or limit progression of a variety of medical conditions.

Credits: 3**College:** Jefferson College of Health Professions**Prerequisites:** (BIOL 103 and BIOL 103L) or (BIOL 112 and BIOL 112L)

[Min Grade: D]

Schedule Type: By Appointment - 1 student, Hybrid, Lecture**HSCI 306: Intro to Exercise Physiology**

This course is designed to provide the student with applied knowledge relative to the human's physiologic responses to exercise and other environmental stresses. Topics include; nutrition, energy metabolism, respiratory, cardiovascular, and neuromuscular physiology, environmental factors, and applied physiology. Basic laboratory procedures and tests in the field of exercise physiology are designed to complement the lecture area. This is a writing intensive course.

Prerequisite: BIOL-201, BIOL-201L; BIOL-202, BIOL-202L; Minimum grade C.**Credits:** 3**College:** Jefferson College of Health Professions**Prerequisites:** (BIOL 201 and BIOL 201L) and (BIOL 202 and BIOL 202L)

[Min Grade: C]

Schedule Type: Lecture**HSCI 307: Introduction to Kinesiology**

This course provides an introduction to the discipline of kinesiology and an examination of the study of physical activity from the perspectives of experience, research, and professional practice. Specifically, it is an introduction to the fundamental biophysical principles of human movement and their relationship to fitness and activity. The class also introduces students to the sub-disciplines of Kinesiology including Sport Psychology/Sociology, Motor Behavior/Motor Learning, Biomechanics, Exercise Physiology among other topics. **Prerequisite:** BIOL-201 BIOL-201L; Minimum grade C.

Credits: 3**College:** Jefferson College of Health Professions**Prerequisites:** BIOL 201 and BIOL 201L [Min Grade: C]**Schedule Type:** Lecture**HSCI 308: Women's Health**

Students will look at the intersection of gender, health, and illness through different disciplinary perspectives. Health is conceptualized not only as the absence of disease, but as the result of individual, cultural, social, legal, and environmental influences. Illnesses that disproportionately affect women are examined through a variety of lenses. The course provides for focused exploration of social determinants of health and cultural considerations with a special emphasis on gender throughout the lifespan.

Credits: 3**College:** Jefferson College of Health Professions**Prerequisites:** WRIT 201 or WRIT 202 [Min Grade: D]**Schedule Type:** Hybrid, Lecture

HSCI 309: Children's Health

This course examines contemporary trends in the delivery of children's healthcare. Students will explore how social and environmental factors affect health, and the impact that allocation of healthcare resources has on health delivery.

Credits: 3

College: Jefferson College of Health Professions

Prerequisites: WRIT 201 or WRIT 202 [Min Grade: D]

Schedule Type: Hybrid, Lecture/On-Line, On-Line

HSCI 310: Emergency Medical Technician

This hybrid course prepares students to handle emergencies using basic-life support equipment in accordance with objectives of the US Department of Transportation National Standard Curriculum. It includes training in American Heart Association (AHA) Basic Cardiac Life Support (BLS), and prepares students for the Pennsylvania Department of Health Emergency Medical Technician-Basic (EMT) examination process. Lab fee will be assessed. Enrollment restricted to 3+2 HSCI BS/Physician Assistant and HSCI BS/Pre-Physician Assistant majors. Also offered as HSCI 610. Enrollment restricted to MS Athletic Training students.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: By Appointment - 1 student, By Appointment - 2 students, By Appointment - 3 students, By Appointment - 4 students, By Appointment - 5 students, Hybrid

HSCI 311: Intro to Nursing

This course introduces students to the nursing profession by exploring the evolution of nursing practice, and the profession's values such as empathy, professionalism, and human dignity. Students will explore reflective practice, time management, and becoming self-motivated learners as they relate to the student nurse role. This hybrid course uses multiple teaching-learning strategies to prepare pre-nursing students to seamlessly transition into their professional nursing education.

Prerequisite: WRIT 2XX

Credits: 2

College: Jefferson College of Health Professions

Prerequisites: WRIT 201 or WRIT 202 or WRIT 211 or WRIT 215 or WRIT 217 [Min Grade: D]

Schedule Type: Hybrid

HSCI 313: Cur Issues in Comm Hlth

Students will learn to assess the causes and conditions that impact health across diverse communities. This course will discuss topics such as social determinants of health, health disparities and inequities, program planning and evaluation, and moral and ethical decision making in community health.

Credits: 3

College: Jefferson College of Health Professions

Prerequisites: WRIT 201 or WRIT 202 or WRIT 211 or WRIT 215 or WRIT 217 [Min Grade: D]

Schedule Type: By Appointment - 1 student, Hybrid, Lecture, On-Line

HSCI 314: Medical Cannabis

In this course students learn about the cultural and social history of cannabis; some of the rapidly developing trends in cannabis business, laws and regulations; and major aspects of cannabis science, from a layman's perspective.

Credits: 3

College: Jefferson College of Health Professions

Prerequisites: WRIT 201 or WRIT 202 or WRIT 211 or WRIT 217 or WRIT 215 [Min Grade: D]

Schedule Type: Hybrid, Lecture

HSCI 315: Health & Wellness Coaching

Students will learn about and engage in course activities related to health and wellness coaching through a lifespan health perspective. In particular, students will consider the mind and body as a whole, review coaching and behavioral change theories, and develop individual health and wellness plans. This course fulfills the Health Sciences major writing intensive requirement.

Credits: 3

College: Jefferson College of Health Professions

Prerequisites: WRIT 201 or WRIT 202 or WRIT 211 or WRIT 215 or WRIT 217 [Min Grade: D]

Schedule Type: Hybrid, Lecture

HSCI 316: Perspectives on Aging

This course examines the biological, psychological, social, cultural, and environmental factors that influence quality of life as individuals age. Students will explore concepts related to aging successfully and how to apply these insights to clinical practice.

Credits: 3

College: Jefferson College of Health Professions

Prerequisites: WRIT 201 or WRIT 202 or WRIT 211 or WRIT 215 or WRIT 217 [Min Grade: D]

Schedule Type: Hybrid, Lecture, On-Line

HSCI 320: Clinical Interactions

Clinical Interactions This experiential, independent-study course includes an extended community-service volunteer experience (150 hours) in a health care setting. Students are required to complete and submit activity logs, a final paper, and an evaluation from their supervisor. Students may require background check and other clearances to complete clinical hours. Prerequisite: HSCI-230.

Credits: 3

College: Jefferson College of Health Professions

Prerequisites: HSCI 230 or HSCI 231 [Min Grade: D]

Schedule Type: On-Line

HSCI 330: Medical Terminology

This hybrid course is designed for students in undergraduate health science programs and focuses on the structure and use of medical language and common documentation formats. It also includes an introduction to medical informatics. Clinical cases are utilized to illustrate the use of medical terminology in the health care setting. Prerequisite: BIOL-201, BIOL 201L or permission of program director.

Credits: 3

College: Jefferson College of Health Professions

Prerequisites: BIOL 201 and BIOL 201L [Min Grade: D]

Schedule Type: Hybrid, On-Line

HSCI 371: Special Topics in Health

This course explores topics in health sciences not developed in other courses. Examples include health and technology, women's health, children's health, healthy aging, and special population health. Students may take this course more than once as the topics differ each time it is offered. Prerequisite: WRIT 2XX

Credits: 1-3

College: Jefferson College of Health Professions

Prerequisites: WRIT 201 or WRIT 202 or WRIT 211 or WRIT 215 or WRIT 217 [Min Grade: D]

Schedule Type: Hybrid

HSCI 398: Transfer Health Sci Elective

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

Health Sciences (Online) (HSCX)

HSCX 110: Intro to Health Professions

This course provides a survey of health careers including career planning and career development. Covers rights, responsibilities, and skills required for career pathways in diagnostic, therapeutic, and support services careers, health information careers, and biotechnology research and development careers.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: On-Line

HSCX 120: Medical Terminology

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: On-Line

HSCX 200: Structure of the Human Body

Credits: 3

College: Jefferson College of Health Professions

Prerequisites: GNST 120 or HSC 120 or HSCX 120 [Min Grade: D]

Schedule Type: On-Line

HSCX 201: Human Disease and Treatment

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: On-Line

HSCX 498: Health Sciences Capstone

This course serves as a capstone course in the Health Sciences program. Students will have the opportunity to explore current issues related to their specific disciplines and health care in general. In addition, each student will prepare a portfolio assessment providing an opportunity to integrate and synthesize their growth in knowledge and skills over the course of the program. Identification of goals for continued professional growth and lifelong learning will be identified.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: On-Line

Health Services (HLSV)

HLSV 210: Eth Issues Hlth&Hmn Svcs Prov

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: By Appointment - 2 students, Lecture, On-Line

HLSV 310: Surv of Hlth Svcs Delivery Sys

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

HLSV 315: Pub Policy & Plann in Helthcre

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: By Appointment - 1 student, By Appointment - 2 students, By Appointment - 3 students, Lecture, On-Line

HLSV 325: Emerging Issues in Healthcare

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: By Appointment - 2 students, By Appointment - 4 students, Lecture, On-Line

HLSV 499: Cap Sem in Health Svcs Mgmt

Credits: 3

College: Jefferson College of Health Professions

Prerequisites: HRM 350 and HLSV 315 and HLSV 325 [Min Grade: D]

Schedule Type: By Appointment - 1 student, By Appointment - 2 students, By Appointment - 3 students, Lecture, On-Line

Health Services (Online) (HLSX)

HLSX 310: Surv of Hlth Svcs Delivery Sys

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: On-Line

HLSX 315: Pub Policy & Plann in Helthcre

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: By Appointment - 1 student, On-Line

HLSX 325: Emerging Issues in Healthcare

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: On-Line

HLSX 499: Cap Sem in Health Svcs Mgmt

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: By Appointment - 1 student, By Appointment - 2 students, By Appointment - 3 students, On-Line

Health Services Management (HSM)

HSM 301: Health Systems & Policy

This course provides an overview of how healthcare and public health are organized and how their services are delivered in the United States. Topics to be covered include public policy including U.S. health reform initiatives; organization of healthcare systems; components and operation of healthcare organizations, including e-health delivery; professional roles and accreditation; and legal and regulatory issues, including licensure requirements. Emphasis is given to the key indicators and organizations that drive policy and planning in health care systems. The course also considers the impact of policy on practitioners in health care.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: By Appointment - 2 students, By Appointment - 3 students, Lecture, On-Line

HSM 303: Business and Healthcare Law

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, Lecture/On-Line, On-Line

HSM 311: Health Informatics

This course introduces health informatics, an evolving and multidisciplinary field that is concerned with the cognitive, information-processing, and communication tasks of healthcare practice, education, and research, including the information science and technology to support these tasks. Students will learn to apply informatics skills and knowledge to health-related problems.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

HSM 350: Public Health and Epidemiology

Examines disease prevention and infection control undertaken by federal, state and local governments. Delineates roles and responsibilities of public health officers and public health departments, governmental standards, oversight of contagious disease, air and water safety, emergency situations, and health education and behaviors. Considers the limits and strengths of epidemiology in containing and limiting high-risk substances and disease. Cites models of collaboration between public and private sectors to effect positive change toward healthier communities. Discusses role of public health services in light of bioterrorism.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

HSM 351: Strat Planning/Mrktng for HSOs

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: By Appointment - 1 student, Lecture, On-Line

HSM 407: Fin Mgmt of HSOs

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

HSM 412: Healthcare Qual Improvement

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: By Appointment - 4 students, Lecture, On-Line

HSM 498: Health Services Mgmt Capstone

This course serves as a capstone course in the Health Services Management program. Students complete the SCPS Portfolio they have been assembling throughout their program. The portfolio provides students with an opportunity to look at the past, present, and future. Students reflect on personal growth and development during their program of study. Students also demonstrate the ability to integrate theory and practice by proposing a solution to a current problem in a professional setting via a research project. The portfolio concludes with a professional development plan wherein students identify goals for continued professional growth and lifelong learning.

Credits: 3

College: Jefferson College of Health Professions

Prerequisites: CLC 310 and (CLC 320 or CLC 360) and CLC 330 and CLC 340 and CLC 350 and HSM 301 and HSM 350 and HSM 351 and HSM 412 and COMM 220 and PHIL 222 [Min Grade: D]

Schedule Type: Lecture, On-Line

Health Services Mgmt (Online) (HSMX)

HSMX 301: Health Systems & Policy

This course provides an overview of how healthcare and public health are organized and how their services are delivered in the United States. Topics to be covered include public policy including U.S. health reform initiatives; organization of healthcare systems; components and operation of healthcare organizations, including e-health delivery; professional roles and accreditation; and legal and regulatory issues, including licensure requirements. Emphasis is given to the key indicators and organizations that drive policy and planning in health care systems. The course also considers the impact of policy on practitioners in health care.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: On-Line

HSMX 303: Business and Healthcare Law

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: On-Line

HSMX 311: Health Informatics

This course introduces health informatics, an evolving and multidisciplinary field that is concerned with the cognitive, information-processing, and communication tasks of healthcare practice, education, and research, including the information science and technology to support these tasks. Students will learn to apply informatics skills and knowledge to health-related problems.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: On-Line

HSMX 350: Public Health and Epidemiology

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: On-Line

HSMX 351: Strat Planning/Mrktng for HSOs

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: By Appointment - 2 students, By Appointment - 3 students, On-Line

HSMX 407: Fin Mgmt of HSOs

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: By Appointment - 1 student, By Appointment - 2 students, On-Line

HSMX 412: Healthcare Qual Improvement

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: On-Line

HSMX 498: Health Services Mgmt Capston

This course serves as a capstone course in the Health Services Management program. Students complete the SCPS Portfolio they have been assembling throughout their program. The portfolio provides students with an opportunity to look at the past, present, and future. Students reflect on personal growth and development during their program of study. Students also demonstrate the ability to integrate theory and practice by proposing a solution to a current problem in a professional setting via a research project. The portfolio concludes with a professional development plan wherein students identify goals for continued professional growth and lifelong learning.

Credits: 3**College:** Jefferson College of Health Professions

Prerequisites: (CLCX 310 or CLC 310) and (CLCX 320 or CLC 320 or CLCX 360 or CLC 360) and (CLCX 330 or CLC 330) and (CLCX 340 or CLC 340) and (CLCX 350 or CLC 350) and (HSMX 301 or HSM 301) and (HSMX 350 or HSM 350) and (HSMX 351 or HSM 351) and (HSMX 412 or HSM 412) and (COMX 220 or COMM 220) and (PHLX 222 or PHIL 222) [Min Grade: D]

Schedule Type: By Appointment - 1 student, By Appointment - 3 students, On-Line

Health Studies (HST)

HST 198: Health Studies Elective**Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**HST 498: Health Studies Capstone**

This course serves as a capstone course in the Health Studies program. Students complete the SCPS Portfolio they have been assembling throughout their program. The portfolio provides students with an opportunity to look at the past, present, and future. Students reflect on personal growth and development during their program of study. Students also demonstrate the ability to integrate theory and practice by proposing a solution to a current problem in a professional setting via a research project. The portfolio concludes with a future directions essay wherein students identify goals for continued professional growth and lifelong learning.

Credits: 3**College:** Jefferson College of Health Professions

Prerequisites: CLC 310 and CLC 320 and CLC 330 and CLC 340 and CLC 350 and HSC 200 and HSM 301 and HSM 350 and PHIL 222 [Min Grade: D]

Schedule Type: By Appointment - 1 student, By Appointment - 3 students, Lecture, On-Line

Health Studies (Online) (HSTX)

HSTX 498: Health Studies Capstone

This course serves as a capstone course in the Health Studies program. Students complete the SCPS Portfolio they have been assembling throughout their program. The portfolio provides students with an opportunity to look at the past, present, and future. Students reflect on personal growth and development during their program of study. Students also demonstrate the ability to integrate theory and practice by proposing a solution to a current problem in a professional setting via a research project. The portfolio concludes with a future directions essay wherein students identify goals for continued professional growth and lifelong learning.

Credits: 3**College:** Jefferson College of Health Professions

Prerequisites: (CLCX 310 or CLC 310) and (CLCX 320 or CLC 320 or CLCX 360 or CLC 360) and (CLCX 340 or CLC 340) and (CLCX 350 or CLC 350) and (HSCX 200 or HSC 200) and (HSMX 301 or HSM 301) and (HSMX 350 or HSM 350) and (PHLX 222 or PHIL 222) and (CLCX 330 or CLC 330) [Min Grade: D]

Schedule Type: By Appointment - 2 students, By Appointment - 3 students, On-Line

Healthcare Management Info Sys (HMIS)

HMIS 310: Manag Info Sys in Healthcare**Credits:** 3**College:** Jefferson College of Health Professions**Prerequisites:** HCA 300 and CMST 201**Schedule Type:** Lecture, On-Line**HMIS 311: Info Res & Tech for Health Ser****Credits:** 3**College:** Jefferson College of Health Professions**Prerequisites:** HMIS 310**Schedule Type:** Lecture, Lecture/On-Line, On-Line**HMIS 401: Network Management****Credits:** 3**College:** Jefferson College of Health Professions**Prerequisites:** HMIS 310**Schedule Type:** Lecture, On-Line**HMIS 402: Systems Design****Credits:** 3**College:** Jefferson College of Health Professions**Prerequisites:** HMIS 310**Schedule Type:** Lecture, Lecture/On-Line, On-Line**HMIS 410: Advanced Seminar****Credits:** 3**College:** Jefferson College of Health Professions

Prerequisites: CMST 212 and HCA 303 and HMIS 310 and HMIS 311 and HMIS 401 and HMIS 402 and MGMT 304 and PHIL 301

Schedule Type: Lecture/On-Line, Seminar

Healthcare Quality & Safety (HQS)

HQS 325: Process Improve for HC: Lean Think

Credits: 3

College: Jefferson College of Population Health

Schedule Type: Lecture, On-Line, Seminar

HQS 327: Lean Project

Credits: 1

College: Jefferson College of Population Health

Schedule Type: Lecture, Research

History (HIST)

HIST 101: World Civiliz to 1500

Surveys origins and diffusion of civilization from antiquity to the late fifteenth century. Emphasizes environmental and cross-cultural influences on the development of the major civilizations of Eurasia, Africa and the Americas. Develops critical thinking and communication skills by analyzing, evaluating and summarizing historical data.

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: On-Line

HIST 111: United States History to 1865

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture, Lecture/On-Line, On-Line

HIST 112: United States Hist Since 1865

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture, Lecture/On-Line, On-Line

HIST 114AC: Amer in Focus: Themes US Hist

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: By Appointment - 4 students, Lecture, On-Line

HIST 198: Historical Understanding I

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

HIST 199: Historical Understanding II

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

HIST 232: Hist & Philosophy of OTA Prac

The history of the OT profession will be described, including founding principles, key figures in the development of the profession, founders of OT in the United States and the history of the practice of OT throughout the United States beginning with the Reconstruction Aides. Key dates, events and philosophical underpinnings will be outlined, particularly the move from holism through the rehabilitation movement following World War II and the effect of technology on practice in the US. The OT Practice Framework will be introduced. 3-0-3

Credits: 3

College: Jefferson College of Rehabilitation Sciences

Prerequisites: WRIT 105 [Min Grade: D]

Schedule Type: Lecture

HIST 321: Bus Indus Work in Amer History

This General Education Core course surveys major themes in the history of work in America, focusing on how economic, technological and political changes have transformed the nature of work in America. Course readings explore industrialization, the emergence of mass production and modern management, the history of worker organizations, the decline of manufacturing and rise of a service economy, and the impact of globalization on work in America. Throughout the course, students consider connections between changes in the workplace and broader social and political developments, including changing gender roles and the civil rights movement.

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: By Appointment - 1 student, By Appointment - 4 students, By Appointment - 5 students, Lecture, On-Line

HIST 381: Independent Study in History

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Independent Study

History (Online) (HISX)

HISX 101: World Civilization I

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: On-Line

HISX 201: United States History I

This survey course traces the origins of American society from colonial times to the close of the Civil War. Emphasis is on the development of liberty and equality as core social values in American culture.

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture, On-Line

HISX 321: Bus Indus Work in Amer History

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: By Appointment - 2 students, On-Line

Honors (HONR)

HONR 300: Honors: Study Abroad

Credits: 0

College: Jefferson College of Humanities & Sciences

Schedule Type: Study Abroad

HONR 310: Honors Summer Readings

Credits: 0

College: Jefferson College of Humanities & Sciences

Schedule Type: On-Line

HONR 355: Honors: Community Service

Credits: 0

College: Jefferson College of Humanities & Sciences

Schedule Type: Internship

HONR 381: Honors Independent Study I

Credits: 0

College: Jefferson College of Humanities & Sciences

Schedule Type: Independent Study

HONR 382: Honors Independent Study II**Credits:** 0**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Independent Study**HONR 391: Honors Research I****Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Independent Study**HONR 392: Honors Research II****Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Independent Study

Human Resources (HRM)

HRM 201: Intro to HR Management

The purpose of this course is to provide an understanding of fundamental critical issues, concepts, and functions of Human Resources (HR). This course explores how the management of human resources can help companies meet their competitive challenges.

Credits: 3**College:** School of Business**Schedule Type:** Lecture, On-Line**HRM 305: Staffing and Recruitment**

This course will examine business practices and laws that help managers create a better and more effective working environment. Subjects include job analysis, recruitment, training, relationship management, compensation, safety, and labor relations.

Credits: 3**College:** School of Business**Prerequisites:** HRM 201 or HRMX 201 [Min Grade: D]**Schedule Type:** Lecture, On-Line**HRM 307: Compensation and Benefits**

This course will examine both the theory and practice of total compensation. Topics include strategic compensation, employee compensation and benefits, job evaluation, external competitiveness & market analysis, incentives and variable pay, employee motivation, compensation and performance management administration. A variety of approaches will be used to analyze organizational compensation policy and design. Consideration is given to the interaction between human resource managers and managers throughout the organization to implement effective compensation programs.

Credits: 3**College:** School of Business**Prerequisites:** MGMT 320 or MGMT 320AC or HRM 201 or HRMX 201 or MGMT 102 [Min Grade: D]**Schedule Type:** By Appointment - 1 student, By Appointment - 2 students, Lecture, Lecture/On-Line, On-Line**HRM 308: Training & Development**

This course focuses on the role of training and employee development in organizations. Students will learn current theory on learning and program design, training methods and evaluation, e-learning and the use of technology in training, and the relationship of training to career management.

Credits: 3**College:** School of Business**Prerequisites:** HRM 201 or HRMX 201 [Min Grade: D]**Schedule Type:** By Appointment - 1 student, Lecture, On-Line**HRM 321: Staffing & Resource Management**

This course focuses on the recruitment and retention functions of human resource management, including EEO/ Affirmative Action and career planning. In addition, the course focuses on the training and development functions inherent in retaining and enhancing a skilled work force. Training development includes needs analysis, programming and evaluation.

Credits: 3**College:** School of Business**Prerequisites:** MGMT 320 or MGMT 320AC or HRM 201 or HRMX 201 or MGMT 102 [Min Grade: D]**Schedule Type:** By Appointment - 2 students, By Appointment - 3 students, Lecture**HRM 336: Comp, Benefits, Health & Safety**

Focusing on the complex structure of employee benefits programs, this course also introduces students to compensation structures. In addition to the focus on compensation and benefits, the course also develops students' understanding of the legal and organizational aspects of health, safety and security.

Credits: 3**College:** School of Business**Prerequisites:** MGMT 320 or MGMT 320AC [Min Grade: D]**Schedule Type:** By Appointment - 1 student, By Appointment - 2 students, By Appointment - 3 students, Lecture, On-Line**HRM 341: Employment Law**

This course will explore the basic framework of employment law in the United States. Topics include collective bargaining, the negotiation process, the labor contract's scope, and the major substantive bargaining issues. The policies, practices, and issues required to build strong employee relations will also be examined.

Credits: 3**College:** School of Business**Prerequisites:** MGMT 320 or MGMT 320AC or HRM 201 or HRMX 201 or MGMT 102 [Min Grade: D]**Schedule Type:** By Appointment - 1 student, Lecture, On-Line**HRM 343: Global HR Management**

This course introduces human resources strategies used by multinational companies in today's global economy. Topics include employment and staffing; compensation; benefits; labor laws; employment-related taxation; immigration; permanent resident and temporary work visa status; and expatriate and repatriation policies and practices. Cultural awareness, language differences, and managing virtual teams also will be covered.

Credits: 3**College:** School of Business**Prerequisites:** HRM 201 or HRMX 201 [Min Grade: D]**Schedule Type:** By Appointment - 1 student, Lecture, On-Line

HRM 345: Organizational Develop & Change

This course presents organizational development as a process of planned change to improve an organization's overall effectiveness within a changing and complex environment. Examines the major components of organizational development: the evolution of organizational development, the nature of change, and how the organizational development practitioner plans and implements interventions to create interpersonal, group, inter#group, or organization#wide change. Emphasize the human relations role in the change process and the HR professional as a change agent. This course is also recommended for students interested in consulting or other roles that involve change and development in the workplace.

Credits: 3

College: School of Business

Prerequisites: HRM 201 or HRMX 201 [Min Grade: D]

Schedule Type: By Appointment - 1 student, Lecture, On-Line

HRM 350: Cross-Cultural Comm Div Mgmt

This course will examine how to manage the growing multicultural workforce in the United States. Topics include issues of intercultural communication and cross-cultural relations, ethnocentrism, racism and ageism. Students will develop an understanding and appreciation for cultures other than one's own and will be able to discuss current techniques used in cultural analysis.

Credits: 3

College: School of Business

Schedule Type: By Appointment - 4 students, Lecture, On-Line

HRM 421: Org & Employee Relations

This course focuses in part on the function of union representation and collective bargaining in managing a large organization. In addition, it focuses on the role of planning, control, and information resources in the practice of human resource professionals.

Credits: 3

College: School of Business

Schedule Type: By Appointment - 2 students, By Appointment - 4 students, Lecture

HRM 498: HR Management Capstone

This course serves as a capstone course in the Human Resource Management program. Students complete the SCPS Portfolio they have been assembling throughout their program. The portfolio provides students with an opportunity to look at the past, present, and future. Students reflect on personal growth and development during their program of study. Students also demonstrate ability to integrate knowledge and skills acquired throughout the programs by completing assignments centered around six key human resource management functions: staffing and recruitment, compensation and benefits, training and development, employment law, global human resource management, and consultancy to improve organizational performance. The portfolio concludes with a professional development plan wherein students identify goals for continued professional growth and lifelong learning. The capstone course brings together the student's educational experience to apply the knowledge and skills obtained throughout the major to address real-world business and organizational challenges in today's competitive workforce.

Credits: 3

College: School of Business

Prerequisites: (HRM 201 or HRMX 201) and (HRM 305 or HRMX 305) and (HRM 307 or HRMX 307) and (HRM 308 or HRMX 308) and (HRM 341 or HRMX 341) and (HRM 343 or HRMX 343) and (HRM 345 or HRMX 345) [Min Grade: D]

Schedule Type: Lecture, On-Line

HRM 499: Applied Research & Pract in HR

This project-centered course requires students to develop a comprehensive human resource plan for an organization. Plans must include considerations of planning, staff development, compensation and benefit structures, and organizational health and safety requirements. Students will write and present a comprehensive plan, including materials targeted for employee development and relations.

Credits: 3

College: School of Business

Schedule Type: By Appointment - 1 student, By Appointment - 2 students, By Appointment - 4 students, Lecture, Online By Appointment 8 Week, On-Line

Human Resources (Online) (HRMX)

HRMX 201: Intro to HR Management

The purpose of this course is to provide an understanding of fundamental critical issues, concepts, and functions of Human Resources (HR). This course explores how the management of human resources can help companies meet their competitive challenges.

Credits: 3

College: School of Business

Schedule Type: On-Line

HRMX 305: Staffing and Recruitment

This course will examine business practices and laws that help managers create a better and more effective working environment. Subjects include job analysis, recruitment, training, relationship management, compensation, safety, and labor relations.

Credits: 3

College: School of Business

Prerequisites: HRM 201 or HRMX 201 or MGTX 201 [Min Grade: D]

Schedule Type: By Appointment - 4 students, On-Line

HRMX 307: Compensation and Benefits

This course will examine both the theory and practice of total compensation. Topics include strategic compensation, employee compensation and benefits, job evaluation, external competitiveness & market analysis, incentives and variable pay, employee motivation, compensation and performance management administration. A variety of approaches will be used to analyze organizational compensation policy and design. Consideration is given to the interaction between human resource managers and managers throughout the organization to implement effective compensation programs.

Credits: 3

College: School of Business

Prerequisites: MGMT 320 or MGMT 320AC or HRM 201 or HRMX 201 or MGMT 102 or MGTX 201 [Min Grade: D]

Schedule Type: By Appointment - 2 students, By Appointment - 3 students, On-Line

HRMX 308: Training & Development

This course focuses on the role of training and employee development in organizations. Students will learn current theory on learning and program design, training methods and evaluation, e-learning and the use of technology in training, and the relationship of training to career management.

Credits: 3

College: School of Business

Prerequisites: HRM 201 or HRMX 201 [Min Grade: D]

Schedule Type: By Appointment - 3 students, On-Line

HRMX 341: Employment Law**Credits:** 3**College:** School of Business**Prerequisites:** MGMT 320 or MGMT 320AC or HRM 201 or HRMX 201 or MGMT 102 or MGTX 201 [Min Grade: D]**Schedule Type:** By Appointment - 3 students, On-Line**HRMX 343: Global HR Management**

This course introduces human resources strategies used by multinational companies in today's global economy. Topics include employment and staffing; compensation; benefits; labor laws; employment-related taxation; immigration; permanent resident and temporary work visa status; and expatriate and repatriation policies and practices. Cultural awareness, language differences, and managing virtual teams also will be covered.

Credits: 3**College:** School of Business**Prerequisites:** HRM 201 or HRMX 201 or MGTX 201 [Min Grade: D]**Schedule Type:** By Appointment - 1 student, On-Line**HRMX 345: Organizational Develop & Change**

This course presents organizational development as a process of planned change to improve an organization's overall effectiveness within a changing and complex environment. Examines the major components of organizational development: the evolution of organizational development, the nature of change, and how the organizational development practitioner plans and implements interventions to create interpersonal, group, inter#group, or organization#wide change. Emphasize the human relations role in the change process and the HR professional as a change agent. This course is also recommended for students interested in consulting or other roles that involve change and development in the workplace.

Credits: 3**College:** School of Business**Prerequisites:** HRM 201 or HRMX 201 or MGTX 201 [Min Grade: D]**Schedule Type:** By Appointment - 1 student, On-Line**HRMX 350: Cross-Cultural Comm Div Mgmt****Credits:** 3**College:** School of Business**Schedule Type:** On-Line**HRMX 498: HR Management Capstone**

This course serves as a capstone course in the Human Resource Management program. Students complete the SCPS Portfolio they have been assembling throughout their program. The portfolio provides students with an opportunity to look at the past, present, and future. Students reflect on personal growth and development during their program of study. Students also demonstrate ability to integrate knowledge and skills acquired throughout the programs by completing assignments centered around six key human resource management functions: staffing and recruitment, compensation and benefits, training and development, employment law, global human resource management, and consultancy to improve organizational performance. The portfolio concludes with a professional development plan wherein students identify goals for continued professional growth and lifelong learning. The capstone course brings together the student's educational experience to apply the knowledge and skills obtained throughout the major to address real-world business and organizational challenges in today's competitive workforce.

Credits: 3**College:** School of Business**Prerequisites:** (HRM 201 or HRMX 201) and (HRM 305 or HRMX 305) and (HRM 307 or HRMX 307) and (HRM 308 or HRMX 308) and (HRM 341 or HRMX 341) and (HRM 343 or HRMX 343) and (HRM 345 or HRMX 345) and (MGTX 201 or MGMT 201) [Min Grade: D]**Schedule Type:** On-Line**HRMX 499: Applied Research & Pract in HR**

This project-centered course requires students to develop a comprehensive human resource plan for an organization. Plans must include considerations of planning, staff development, compensation and benefit structures, and organizational health and safety requirements. Students will write and present a comprehensive plan, including materials targeted for employee development and relations.

Credits: 3**College:** School of Business**Prerequisites:** (HRM 201 or HRMX 201) and (HRM 305 or HRMX 305) and (HRM 307 or HRMX 307) and (HRM 308 or HRMX 308) and (HRM 341 or HRMX 341) and (HRM 343 or HRMX 343) and (HRM 345 or HRMX 345) [Min Grade: D]**Schedule Type:** By Appointment - 1 student, By Appointment - 3 students, By Appointment - 4 students, Online By Appointment 8 Week, On-Line

Humanities (HUMN)

HUMN 111: Philadelphia and the Arts**Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**HUMN 130: Interpreting Jazz****Credits:** 1**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Studio**HUMN 198: Humanities I****Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture

HUMN 199: Humanities II

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

HUMN 215: Evil and Good

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

HUMN 223: World Philosophies

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

HUMN 225: Exploring World Literature

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

HUMN 301: Art and Context

An in-depth examination of images and objects from throughout history and world cultures. Emphasis will be on the materials and techniques of painting, sculpture, architecture and landscape architecture, and on what these objects and images say about the cultures that made and make them. Class format will be lecture, class discussions and student group presentations. Two self-guided Philadelphia-area field trips will be required.

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

HUMN 310: Globalization & World Politics

This course provides an overview of the forces which are shaping global economics and politics. Students will develop an understanding of the roles of international institutions such as the World Trade Organization, the International Monetary Fund and the United Nations, as well as non-governmental groups like Amnesty International and al Qaeda. Students will also examine the process of economic globalization in order to understand its varying impacts on different world regions.

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: By Appointment - 3 students, By Appointment - 4 students, Lecture, On-Line

HUMN 315: Methods of Effective Thinking

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture, On-Line

HUMN 381: Ind Study in the Humanities

Intensive research on a topic that does not fall within a particular discipline in the humanities or that is interdisciplinary in nature. Can be taken for College Studies credit. For further details, see general description of Independent Study in ?Academic Policies? section.

Credits: 3-4

College: Jefferson College of Humanities & Sciences

Schedule Type: By Appointment - 1 student, Independent Study, Lecture

HUMN 382: Independent Study in Languages

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Independent Study

HUMN 383: Ind Study Roxboro Roundtables

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: By Appointment - 1 student, Independent Study

Humanities (Online) (HUMX)

HUMX 310: Globalization & World Politics

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: On-Line

Industrial Design (INDD)

INDD 3XX: ID Concentration Elective

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture, Studio

INDD 101: Design 1 for Industrial Design

This studio is an introduction to design for undergraduate majors in industrial design. The course will provide an intensive introduction to design as an iterative problem-solving process. It will also introduce strategies for making and analyzing form, and present basic techniques of two-dimensional visualization and documentation of three-dimensional objects and principles of design critique, testing and research.

Credits: 4

College: School of Design & Engineering

Schedule Type: Studio

INDD 102: Design 2: Industrial Design

This studio introduces methods, materials and vocabulary of the industrial design profession, as well as design as a rational, iterative process of problem solving based on working creatively within constraints. Working with materials, digital and hand tools, shop processes and presentation techniques used by professionals are emphasized. It is intensive in industrial design drawing, including sketches, development drawings, orthographic, axonometric and perspective renderings, as well as beginning drafting as used in industrial design, with dimensioned assembly and parts drawings.

Credits: 4

College: School of Design & Engineering

Prerequisites: INDD 101 or DSGF 103 or VDES 101 [Min Grade: C]

Schedule Type: Lecture, Studio

INDD 106: Materials & Processes Fab

This course introduces shop techniques as they pertain to industrial design model-making and prototype construction. All industrial design students must take this course for shop equipment safety training and pass a safety test. Throughout the semester, attention is given to safety precautions for the shop, along with demonstrations of shop equipment and fabrication processes. A major portion of the course will consist of developing an understanding of the materials and machinery commonly used by industrial designers for producing both working and appearance models.

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture, Lecture/Studio Combination, Studio

INDD 107: Vis for Industrial Design I

This is an advanced drawing course developed for designers of all disciplines who want to improve the designer's ability to apply knowledge imparted in other courses to the development of designs. Wherever possible the subject matter of the students' design studio courses will be used as the subject matter for drawing exercises. This course was DRAW 301 until Fall 2022.

Credits: 3**College:** School of Design & Engineering**Prerequisites:** INDD 102 and (DRAW 201 or VDRW 101 or DRAW 101) [Min Grade: D]**Schedule Type:** By Appointment - 1 student, Lecture, Lecture/Studio Combination, On-Line, Studio**INDD 108: Vis for Industrial Design II**

An introduction to the traditional techniques and materials that industrial designers use to develop and represent three-dimensional concepts and ideas. Students become proficient in the use of pencils, markers, pastels and airbrush on a variety of media. Emphasis is placed on understanding the significance of color and graphic applications for industrial design.

Credits: 3**College:** School of Design & Engineering**Prerequisites:** DRAW 301 or INDD 107 or INDD 303 [Min Grade: D]**Schedule Type:** Lecture, Lecture/Studio Combination, Studio**INDD 201: Design 3: Industrial Design**

This course focuses on creative problem-solving techniques using drawing, sketch modeling and basic shop skills. Students are exposed to a wide choice of materials, which industrial designers use to move their projects forward. Students will use several media for the purpose of documenting projects in progress, for duplication and for presentation purposes. Emphasis is placed on the improvement of craft in the execution of projects.

Credits: 4**College:** School of Design & Engineering**Prerequisites:** INDD 102 [Min Grade: C]**Schedule Type:** By Appointment - 1 student, Studio**INDD 202: Design 4: Industrial Design**

During the fourth in a series of eight studios, designs are conceived which explore the dynamics between objects and the user's senses and emotions. Students are challenged to improve their ability to define problems, generate concepts, evaluate these and offer refinements of solutions. Students will use basic imaging techniques in the presentation of design solutions.

Credits: 4**College:** School of Design & Engineering**Prerequisites:** INDD 201 [Min Grade: C]**Schedule Type:** Studio**INDD 203: Lighting Design for Luminaires**

This course focuses on luminaire design, specifically for the lighting trade market, which requires knowledge of codes and regulations, lighting metrics, and fundamentals of Lighting Design. A review of the Lighting Design market, including residential, corporate, industrial, retail, as well as interior vs. exterior lighting. Students will increase their knowledge of how light is used in the built environment, and the different types of lamp sources, luminaires and their functions. Emphasis will be placed on recent development in solid state lighting and controls.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture**INDD 204: Lighting Design As Pub Exp**

This course focuses on lighting in Public Space, in the form of large scale installations of light, digital projection, media facades, and other means of place-making which transforms our cities into digital urban design. We will review how historically light has shaped the landscape of our public environments, with a focus on new technologies that allow for the rapid upgrade we are seeing in urban areas. Students will learn software that allows them the ability to program light shows, and use digital mapping. Students will participate in full scale temporary lighting installations.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture**INDD 205: Visualization 2 for Industrial**

An introduction to the traditional techniques and materials that industrial designers use to develop and represent three-dimensional concepts and ideas. Students become proficient in the use of pencils, markers, pastels and airbrush on a variety of media. Emphasis is placed on understanding the significance of color and graphic applications for industrial design.

Credits: 3**College:** School of Design & Engineering**Prerequisites:** DRAW 301 or INDD 303 [Min Grade: D]**Schedule Type:** Lecture, Lecture/Studio Combination, Studio**INDD 206: CAD I for Industrial Design**

The course introduces students to computer-aided design with a focus on the industrial design processes. In an intuitive fashion, students create and refine designs using a solids-modeling software package. In order to recognize the critical role CAD plays in the development of designs, students will use designs created in design studio courses as the subject matter of the CAD activities. Design-control drawings, three-dimensional rendered drawings and perspective drawings will be the course's output. This course was CAD 206N until Fall 2022.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture, Lecture/Lab, On-Line**INDD 207: Mats & Proc: Manufacturing**

This course is concerned with the exploration of materials used in the mass production of products, the processes used to shape these materials and the applicability of these materials to product-design solutions. Students should be prepared to visit a number of manufacturing facilities. A survey of rapid prototyping technologies completes the course.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture, Lecture/Studio Combination, On-Line, Studio**INDD 210: Ergonomic Studies**

This course analyzes human factors as related to broad aspects of design development. It explores the issues of operator/ user human factors and their impact on design. The outcome of this course will be to ascertain the relationship of basic human dimensions on product design. Subjects include systems reliability, sensory and motor processes, basic research techniques and anthropometric studies.

Credits: 3**College:** School of Design & Engineering**Prerequisites:** INDD 106 [Min Grade: D]**Schedule Type:** Lab, Lecture, Lecture/Lab

INDD 301: Design 5: Industrial Design

The fifth in a series of eight studios, this course focuses on ideas of designs derived from an understanding of consumer behavior. Emphasis is placed on user needs, ease of use and product culture, without ignoring the practicalities imposed by manufacturer's markets, manufacturing process constraints and investment concerns. Students will demonstrate control of the process of design to develop meaningful concepts that employ appropriate technology for their eventual realization.

Credits: 4**College:** School of Design & Engineering**Prerequisites:** INDD 202 [Min Grade: C]**Schedule Type:** Studio**INDD 302: Design 6: Industrial Design****Credits:** 6**College:** School of Design & Engineering**Prerequisites:** INDD 301 [Min Grade: D]**Schedule Type:** Studio**INDD 302N: Design 6: Industrial Design**

In this sixth in a series of eight studio courses, students design and develop consumer products in a virtual product development consultancy. Students learn about the complexities of the design development process, during which supply-chain and assembly requirements, marketing issues, materials and sustainability all affect the initial intent of their designs. Prerequisite: INDD-301.

Credits: 5**College:** School of Design & Engineering**Schedule Type:** Lecture, Studio**INDD 304: Design History/Theory**

This writing intensive seminar will serve as a forum for students to explore the context and scope of the practice of industrial design through readings, research, critical discussions, written presentations and papers. This course is intensive and incorporates a workshop component in which students will use various theoretical frameworks to examine their own attitudes and design work through papers and spoken/ graphic presentations.

Credits: 3**College:** School of Design & Engineering**Prerequisites:** INDD 324 [Min Grade: D]**Schedule Type:** Lab, Lecture, Lecture/Lab**INDD 305: CAD II Dig Design Techniques**

This course will build upon principles introduced in introductory CAD courses. It is primarily a laboratory course in which students will learn to take their early design concepts through to the final presentation using advanced digital design techniques. Students will use multiple digital design software packages across computer platforms with an emphasis on CAID packages such as NURBS modelers and animation software, as well as vector-based, desktop-publishing programs and bitmap-based programs. This course was CAD 306 until Fall 2022.

Credits: 3**College:** School of Design & Engineering**Prerequisites:** CAD 206 or CAD 206N or INDD 206 [Min Grade: C-]**Schedule Type:** Lab, Lecture, Lecture/Lab, On-Line**INDD 306A: Intercultural Innov: Stdy Abr**

During a short experience in a foreign country, students will observe and document cultural and demographic differences between countries through formal lectures, and field observation and team exercises. The work in this class is informed by the use of user-based observational research techniques. Documentation from this phase is brought back to the US for use in the INDD 306B Intercultural Innovation: Interdisciplinary Project Component class. Students should plan on taking BOTH classes.

Credits: 1**College:** School of Design & Engineering**Schedule Type:** Lecture, Study Abroad**INDD 306B: Intercultural Innovn: Project**

This is the second in a two-course sequence. This class builds on work done in the INDD 306A Intercultural Innovation: Study Abroad Component course. Students should plan on taking BOTH classes. In INDD 306B, students bring research by interdisciplinary teams outside the Us into well-documented opportunities for new products, business playforms or systems. In a series of team meetings and design critiques, they then turn them into cohesive proposals including both design and business elements.

Credits: 2**College:** School of Design & Engineering**Schedule Type:** Lecture**INDD 307: Adv Mats&Proc for Manufact**

This course builds on concepts and information which is presented in Materials and Processes II- Manufacturing with a much deeper investigation of development workflow, regulatory considerations, designing for particular performance parameters, and designing for assembly and validation. Students will be introduced to considerations in design such as structural robustness and environmental sealing against moisture and dust, along with development and modeling strategies which facilitate iterative solutions which can be easily modified as testing and validation takes place. The focus of the course will be on development of an actual product design which will be taken to the point where a fully functioning prototype can be fabricated and tested.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture, Studio**INDD 308: Biomimicry in Industrial Dsgn**

This January term travel course to Costa Rica is offered as an upper-level Industrial Design course that may be of interest to other majors. During this Study Abroad Short Course, students are introduced to principles of Biomimicry; the practice of looking at the world in ways that inspire innovation based on processes that take place in nature; specifically those found in the tropical biodiversity of the diverse ecosystems of the Neotropics, including coral reefs, mangroves, tropical dry forest, rainforest, and cloud forest. Field research will act as the inspiration for innovation design solutions to meet the needs of neighboring communities. Prerequisite: Completion of the Study Abroad application and policy guideline process; GPA ? 2.5;. Completion of INDD 201 and DECSYS or permission of instructor.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Study Abroad

INDD 324: History of Design & Comm

This lecture course begins with industrialization and leads to the development of modern design and philosophy. Aspects of industrial design and graphic communication will be critically reviewed. Current design events will be studied interactively and discussed as a continuation of past design inquiries.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture**INDD 371: Soft Goods Development**

This course will introduce students to the Soft--goods and Accessories industry through the following professions: footwear design, bag design and outdoor gear. Through this course students will develop a keen understanding of the following: history, design skill---sets, materials, introductory construction techniques, research methodologies, product development, manufacturing practices, and exposure to the international community involved within this fast paced and exciting industry.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture**INDD 372: Soft Goods Fabrication**

This course will introduce students to the Soft-goods and Accessories industry through the following professions: footwear design, bag design and outdoor gear. Through interdisciplinary and industry collaborations students will develop an advanced understanding of the development and prototyping processes, construction methods, materials, computer software, manufacturing practices and professional collaborations that take place in the development of soft good products.

Credits: 3**College:** School of Design & Engineering**Prerequisites:** INDD 371 [Min Grade: D]**Schedule Type:** Lecture**INDD 381: Ind Study in Industrial Design**

For further details, see general description of Independent Study in ? Academic Policies? section.

Credits: 3**College:** School of Design & Engineering**Prerequisites:** INDD 202 [Min Grade: D]**Schedule Type:** By Appointment - 1 student, By Appointment - 2 students, Independent Study**INDD 401: Design 7: Industrial Design****Credits:** 6**College:** School of Design & Engineering**Prerequisites:** INDD 302 [Min Grade: D]**Schedule Type:** Studio**INDD 401N: Design 7: Industrial Design**

The seventh in a sequence of eight studios, this course focuses on the development, expression, and function of design in the context of human culture. It focuses on industry-leading, critical, and entrepreneurial design practices. This studio incorporates development of proposals for the Capstone Project. Prerequisite: INDD-302.

Credits: 5**College:** School of Design & Engineering**Schedule Type:** Studio**INDD 402: Design 8: ID Capstone**

The last in a sequence of eight studio courses, this course is dedicated to the student's capstone project. It is structured to include all aspects of client/designer dynamics, literature review and user research, project management and dissemination, and professional issues. Students present the outcome of their projects at the Kanbar Showcase. Prerequisite: INDD-401.

Credits: 6**College:** School of Design & Engineering**Prerequisites:** INDD 401 [Min Grade: D]**Schedule Type:** By Appointment, Studio**INDD 402N: Design 8: ID Capstone**

The last in a sequence of eight studio courses, this course is dedicated to the student's capstone project. It is structured to include all aspects of client/designer dynamics, literature review and user research, project management and dissemination, and professional issues. Students present the outcome of their projects at the Kanbar Showcase. Prerequisite: INDD-401.

Credits: 5**College:** School of Design & Engineering**Prerequisites:** INDD 401 or INDD 401N [Min Grade: D]**Schedule Type:** By Appointment - 1 student, By Appointment, Lecture, Studio**INDD 494: Professional Practice II****Credits:** 3**College:** School of Design & Engineering**Prerequisites:** INDD 401 and INDD 493 [Min Grade: C]**Schedule Type:** Lecture, Studio

Industrial Engineering (IENG)

IENG 315: Operations Research II**Credits:** 3**College:** School of Design & Engineering**Schedule Type:** Lecture**IENG 413: Simulation Systems****Credits:** 3**College:** School of Design & Engineering**Schedule Type:** Lecture**IENG 414: Manufacturing Quality Control****Credits:** 3**College:** School of Design & Engineering**Schedule Type:** Lecture**IENG 415: Production Planning & Control****Credits:** 3**College:** School of Design & Engineering**Schedule Type:** Lecture**IENG 418: Systems Engineering****Credits:** 3**College:** School of Design & Engineering**Prerequisites:** ENGR 305 [Min Grade: D]**Corequisites:** IENG 498**Schedule Type:** Lecture**IENG 420: Integrating Business & Engr.****Credits:** 3**College:** School of Design & Engineering**Schedule Type:** Lecture

IENG 426: Supply Chain Model & Analysis**Credits:** 3**College:** School of Design & Engineering**Schedule Type:** Lecture**IENG 427: Facility Plann & Material Hand****Credits:** 3**College:** School of Design & Engineering**Schedule Type:** Lecture

Information Systems (INFO)

INFO 101: Intro to Information Systems**Credits:** 3**College:** School of Business**Schedule Type:** Lab, Lecture

Information Technology (IT)

IT 101: Computer Applications

This is an introductory course in Continuing and Professional Studies for students with no prior computer experience. The course is designed to teach students to use informatics that combine computer science, information processing, data-base management, word processing, spreadsheets and information presentation skills to facilitate management and processing of industry-related data.

Credits: 3**College:** School of Business**Schedule Type:** By Appointment - 1 student, By Appointment - 2 students, By Appointment - 4 students, Lecture, On-Line**IT 201: Learning and Technology**

This course will utilize students previously-acquired abilities to use Microsoft Word, Excel and PowerPoint in conjunction with information retrieval, management and communication tools. Research methods are combined with resource use, leading to careful evaluation and ethical use of information. This course will be taught in a computer lab, combining lecture with hands-on activities and group work. Can complement courses in which the student is concurrently enrolled and that require research beyond the course's texts.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** By Appointment - 1 student, By Appointment - 3 students, By Appointment - 4 students, Lecture, On-Line**IT 211: Intro to Information Systems**

This course introduces the student to the field of information systems (IS). Students will learn a holistic approach to both the hardware and software design of information systems and how they are utilized in the business world. Both a business and technical focus will be covered with concrete examples of current technologies and related managerial issues. Coverage is given to the latest information technologies, emerging trends and ethical practices using real-world examples, and company case studies showing information systems in action.

Credits: 3**College:** School of Business**Schedule Type:** By Appointment - 2 students, Lecture, On-Line**IT 221: Hardware & Operating Systems**

This course provides an introduction to computer hardware and operating systems. The course will cover a broad array of topics, familiarizing the student primarily with the personal computing environment, but also with that of enterprise technologies. Topics include desktop and laptop computer hardware; tablet and smart phones; peripherals such as printers and scanners; wearables; networking; and Windows, Linux, MacOS, iOS, and Android operating systems. Prerequisite: IT 211 Note: This course may provide you with the knowledge for the CompTIA A+ certification exam. While the course may provide you with the knowledge necessary to sit for the examination, the University cannot guarantee your eligibility either to take the exam or to become certified.

Credits: 3**College:** School of Business**Prerequisites:** IT 211 or ITX 211 [Min Grade: D]**Schedule Type:** By Appointment - 1 student, By Appointment - 2 students, Hybrid, Lecture, On-Line**IT 241: Software Development**

Entry level course in which students practice software development using elementary selection, looping, method, string, array, and object constructs implemented in a modern programming language.

Credits: 3**College:** School of Business**Prerequisites:** (IT 211 or ITX 211) and (IT 221 or ITX 221) [Min Grade: D]**Schedule Type:** By Appointment - 1 student, Hybrid, Lecture, On-Line**IT 315: Information Technology I**

This course prepares future managers to be effective organizers and users of modern information technologies. Emphasizing a global perspective of information technology and related business issues, students learn to view IT in broad terms and function as ?internal consultants? to functional areas in an organization. The course covers office and manufacturing automation, telecommunications, decision-support systems and executive information systems. Students learn to integrate the informational needs of the organization with suppliers, customers and other decisionmaking entities. Course introduces management techniques to support effective employees whose actions are guided by the power of modern information technologies.

Credits: 3**College:** School of Business**Schedule Type:** By Appointment - 2 students, Lecture, On-Line**IT 317: Information Technology II**

This course introduces the fundamentals of computer application development. Students will develop basic facility in digital media, electronic publishing, and decision support systems. The course also includes the use of information technologies for the automation of both office and factory environments.

Credits: 3**College:** School of Business**Schedule Type:** By Appointment - 4 students, Lecture, On-Line

IT 320: Database Management

This course will provide an introduction to the creation and management of electronic databases. Topics covered include database design, relationships, normal forms, structured query language, importing data and creating reports and forms. Data-modeling techniques will also be covered.

Credits: 3

College: School of Business

Prerequisites: IT 317 [Min Grade: D]

Schedule Type: By Appointment - 1 student, By Appointment - 2 students, Lecture, Online By Appointment 8 Week, On-Line

IT 321: Systems Analysis & Design

The final project brings all course topics together in a group project designed to address a real-world network scenario. The course relies on weekly discussions and scenario-based exercises requiring synthesis of knowledge the student has learned to that point in the course, analysis of the scenario, and design of an optimal solution.

Credits: 3

College: School of Business

Prerequisites: (IT 211 or ITX 211) and (IT 221 or ITX 221 or ITX 211) [Min Grade: D]

Schedule Type: By Appointment - 1 student, Hybrid, Lecture, On-Line

IT 322: Network Management

In this course, students learn basic concepts of network management. Topics include network devices and protocols, transport mediums, switching and routing, virtualization, security, troubleshooting, needs analysis, and a set of selected topics that changes based on current and future trends in the networking space. The course starts with the OSI model as a framework describing the layers of a network, and how these layers work in concert to enable the services a modern network must provide. The final project brings all course topics together in a group project designed to address a real-world network scenario. The course relies on weekly discussions and scenario-based exercises requiring synthesis of knowledge the student has learned to that point in the course, analysis of the scenario, and design of an optimal solution. Note: This course may provide you with the knowledge for the CompTIA Network+ certification exam. While the course may provide you with the knowledge necessary to sit for the examination, the University cannot guarantee your eligibility either to take the exam or to become certified.

Credits: 3

College: School of Business

Prerequisites: (IT 211 or ITX 211) and (IT 221 or ITX 221) [Min Grade: D]

Schedule Type: Hybrid, On-Line

IT 323: Cloud Management

This course introduces the concepts of cloud computing, and reviews how these technologies fit into the modern IT landscape. Specific topics include cloud architecture models: public, private, and hybrid, and the benefits and drawbacks of each. Software as a Service (SaaS), Infrastructure as a Service (IaaS), Platform as a Service (PaaS), and Desktop as a Service (DaaS) will be reviewed. Cloud security will be discussed, as will emerging cloud technologies currently nascent to the industry. Students will perform critical analysis and design of cloud services meeting client needs, as described by the instructor. Note: This course may provide you with knowledge for the CompTIA Cloud Essentials+ certification exam. While the course may provide you with the knowledge necessary to sit for the examination, the University cannot guarantee your eligibility either to take the exam or to become certified.

Credits: 3

College: School of Business

Prerequisites: (IT 211 or ITX 211) and (IT 221 or ITX 221) [Min Grade: D]

Schedule Type: By Appointment - 1 student, Hybrid, Lecture, On-Line

IT 324: Cybersecurity Management

This course provides an introduction to key concepts of cybersecurity including vulnerability assessment, virus and malware attacks, system and network intrusion and detection, system and network defense, firewalls, and VPNs. The course explores the evolving and dynamic nature of cybersecurity threats, and the changing ways in which these threats are mitigated. The final project will require student teams to prepare a response plan to a multi-vector cyber-attack, as well as detail the quantitative and qualitative costs and effects of the attack, as well as a set of corrective action plans (CAPs) that identify remediation treatments to attempt to prevent such attacks in the future. Note: This course may provide you with the knowledge for the CompTIA Security certification exam. While the course may provide you with the knowledge necessary to sit for the examination, the University cannot guarantee your eligibility either to take the exam or to become certified.

Credits: 3

College: School of Business

Prerequisites: (IT 211 or ITX 211) and (IT 221 or ITX 221) [Min Grade: D]

Schedule Type: Hybrid, Lecture, On-Line

IT 325: IT Process & Service Mgmt

This course focuses on the essential process techniques for successfully designing, developing, deploying, and managing IT services. Students will become familiar with operations management processes, and the ITIL framework. Students will learn techniques for process and service design. The methods and tools learned from the course will be presented and used in the class projects.

Credits: 3

College: School of Business

Prerequisites: (IT 211 or ITX 211) and (IT 221 or ITX 221) [Min Grade: D]

Schedule Type: By Appointment - 1 student, Hybrid, Lecture, On-Line

IT 410: Needs Assessment

This course provides an introduction to assessing the informational needs of an organization. Topics covered include equipment requirements, information design and technology integration as they impact the needs of an organization. Special attention will be given to usability studies and design development.

Credits: 3

College: School of Business

Schedule Type: By Appointment - 1 student, By Appointment - 3 students, Lecture, Online By Appointment 8 Week, On-Line

IT 498: Information Tech Capstone

The information technology capstone builds on the concepts of all information technology courses you have taken as a part of your degree plan. The capstone project integrates problem-solving techniques and the development of viable solutions to meet an identified technology need in a business or institutional environment. You will prepare a proposal that includes a project description, deliverables, completion dates, and associated learning.

Credits: 3**College:** School of Business**Prerequisites:** IT 311 and IT 331 and IT 351 and IT 361 [Min Grade: D]**Schedule Type:** By Appointment - 1 student, Lecture, On-Line**IT 499: Project Management**

This course focuses on strategic management of technology projects. Acting as a project manager, students learn techniques to elicit the support and acceptance of new technologies within organizations. Through the creation of a project plan, students learn how to integrate informational technologies into an organization's mission.

Credits: 3**College:** School of Business**Prerequisites:** IT 410 [Min Grade: D]**Schedule Type:** By Appointment - 2 students, By Appointment - 3 students, Lecture, Online By Appointment 8 Week, On-Line

Information Technology- Online (ITX)

ITX 201: Learning and Technology**Credits:** 3**College:** School of Business**Schedule Type:** By Appointment - 2 students, On-Line**ITX 211: Intro to Information Systems**

This course introduces the student to the field of information systems (IS). Students will learn a holistic approach to both the hardware and software design of information systems and how they are utilized in the business world. Both a business and technical focus will be covered with concrete examples of current technologies and related managerial issues. Coverage is given to the latest information technologies, emerging trends and ethical practices using real-world examples, and company case studies showing information systems in action.

Credits: 3**College:** School of Business**Schedule Type:** By Appointment - 3 students, On-Line**ITX 221: Hardware & Operating Systems**

This course provides an introduction to computer hardware and operating systems. The course will cover a broad array of topics, familiarizing the student primarily with the personal computing environment, but also with that of enterprise technologies. Topics include desktop and laptop computer hardware; tablet and smart phones; peripherals such as printers and scanners; wearables; networking; and Windows, Linux, MacOS, iOS, and Android operating systems. Prerequisite: IT 211 Note: This course may provide you with the knowledge for the CompTIA A+ certification exam. While the course may provide you with the knowledge necessary to sit for the examination, the University cannot guarantee your eligibility either to take the exam or to become certified.

Credits: 3**College:** School of Business**Prerequisites:** IT 211 or ITX 211 or MISX 211 [Min Grade: D]**Schedule Type:** By Appointment - 1 student, On-Line**ITX 241: Software Development**

Entry level course in which students practice software development using elementary selection, looping, method, string, array, and object constructs implemented in a modern programming language.

Credits: 3**College:** School of Business**Prerequisites:** IT 211 or MISX 211 or ITX 211 [Min Grade: D]**Schedule Type:** By Appointment - 2 students, On-Line**ITX 315: Information Technology I****Credits:** 3**College:** School of Business**Schedule Type:** On-Line**ITX 317: Information Technology II****Credits:** 3**College:** School of Business**Schedule Type:** By Appointment - 2 students, On-Line**ITX 320: Database Management****Credits:** 3**College:** School of Business**Prerequisites:** MISX 211 or ITX 211 or IT 211 [Min Grade: D]**Schedule Type:** By Appointment - 2 students, On-Line**ITX 321: Systems Analysis & Design**

The final project brings all course topics together in a group project designed to address a real-world network scenario. The course relies on weekly discussions and scenario-based exercises requiring synthesis of knowledge the student has learned to that point in the course, analysis of the scenario, and design of an optimal solution.

Credits: 3**College:** School of Business**Prerequisites:** MISX 211 or ITX 211 or IT 211 [Min Grade: D]**Schedule Type:** By Appointment - 1 student, By Appointment - 2 students, On-Line**ITX 322: Network Management**

In this course, students learn basic concepts of network management. Topics include network devices and protocols, transport mediums, switching and routing, virtualization, security, troubleshooting, needs analysis, and a set of selected topics that changes based on current and future trends in the networking space. The course starts with the OSI model as a framework describing the layers of a network, and how these layers work in concert to enable the services a modern network must provide. The final project brings all course topics together in a group project designed to address a real-world network scenario. The course relies on weekly discussions and scenario-based exercises requiring synthesis of knowledge the student has learned to that point in the course, analysis of the scenario, and design of an optimal solution. Note: This course may provide you with the knowledge for the CompTIA Network+ certification exam. While the course may provide you with the knowledge necessary to sit for the examination, the University cannot guarantee your eligibility either to take the exam or to become certified.

Credits: 3**College:** School of Business**Prerequisites:** IT 211 or MISX 211 or ITX 211 [Min Grade: D]**Schedule Type:** By Appointment - 1 student, On-Line

ITX 323: Cloud Management

This course introduces the concepts of cloud computing, and reviews how these technologies fit into the modern IT landscape. Specific topics include cloud architecture models: public, private, and hybrid, and the benefits and drawbacks of each. Software as a Service (SaaS), Infrastructure as a Service (IaaS), Platform as a Service (PaaS), and Desktop as a Service (DaaS) will be reviewed. Cloud security will be discussed, as will emerging cloud technologies currently nascent to the industry. Students will perform critical analysis and design of cloud services meeting client needs, as described by the instructor. Note: This course may provide you with knowledge for the CompTIA Cloud Essentials+ certification exam. While the course may provide you with the knowledge necessary to sit for the examination, the University cannot guarantee your eligibility either to take the exam or to become certified.

Credits: 3**College:** School of Business**Prerequisites:** (IT 211 or ITX 211) and (IT 221 or ITX 221) [Min Grade: D]**Schedule Type:** By Appointment - 1 student, By Appointment - 2 students, On-Line**ITX 324: Cybersecurity Management**

This course provides an introduction to key concepts of cybersecurity including vulnerability assessment, virus and malware attacks, system and network intrusion and detection, system and network defense, firewalls, and VPNs. The course explores the evolving and dynamic nature of cybersecurity threats, and the changing ways in which these threats are mitigated. The final project will require student teams to prepare a response plan to a multi-vector cyber-attack, as well as detail the quantitative and qualitative costs and effects of the attack, as well as a set of corrective action plans (CAPs) that identify remediation treatments to attempt to prevent such attacks in the future. Note: This course may provide you with the knowledge for the CompTIA Security certification exam. While the course may provide you with the knowledge necessary to sit for the examination, the University cannot guarantee your eligibility either to take the exam or to become certified.

Credits: 3**College:** School of Business**Prerequisites:** MISX 211 or ITX 211 or IT 211 [Min Grade: D]**Schedule Type:** On-Line**ITX 325: IT Process & Service Mgmt**

This course focuses on the essential process techniques for successfully designing, developing, deploying, and managing IT services. Students will become familiar with operations management processes, and the ITIL framework. Students will learn techniques for process and service design. The methods and tools learned from the course will be presented and used in the class projects.

Credits: 3**College:** School of Business**Prerequisites:** (IT 211 or MISX 211 or ITX 211) and (IT 221 or ITX 221) [Min Grade: D]**Schedule Type:** By Appointment - 1 student, By Appointment - 2 students, On-Line**ITX 410: Needs Assessment****Credits:** 3**College:** School of Business**Schedule Type:** By Appointment - 2 students, On-Line**ITX 498: Information Tech Capstone**

The information technology capstone builds on the concepts of all information technology courses you have taken as a part of your degree plan. The capstone project integrates problem-solving techniques and the development of viable solutions to meet an identified technology need in a business or institutional environment. You will prepare a proposal that includes a project description, deliverables, completion dates, and associated learning.

Credits: 3**College:** School of Business**Prerequisites:** ITX 324 and (MISX 211 or ITX 211 or IT 211) [Min Grade: D]**Schedule Type:** By Appointment - 1 student, On-Line**ITX 499: Project Management****Credits:** 3**College:** School of Business**Schedule Type:** By Appointment - 2 students, On-Line

Integrative Seminar (ISEM)

ISEM 3XX: Integrative Sem Placeholder**Credits:** 3**College:** School of Design & Engineering**Schedule Type:** Lecture**ISEM 300: Research Methods**

This writing intensive course explores a range of research tools to analyze human belief, behavior, and cultural practices, and the systems which they drive and are affected by to inform planning and critical inquiry. Students will learn to formulate appropriate research strategies and questions for conducting quantitative and qualitative research to explore a variety of approaches that address contemporary issues around all aspects of sustainability (economic, social, environmental, technical). Students will consider ethical, empathetic, and contextual sensitivities at all stages of the research process, from planning through to analysis and interpretation and will convey their findings through multi-modal means of communication as appropriate to the content and purpose of their research.

Credits: 3**College:** School of Design & Engineering

Prerequisites: (WRIT 201 or WRIT 202) and (GDIV 200 or GDIV 221 or GDIV 229 or GDIV 231 or GDIV 234 or GDIV 233 or GDIV 235 or GDIV 236 or GDIV 333 or GCIT 200 or GCIT 210 or GCIT 211 or GCIT 214 or GCIT 215 or GCIT 216 or GCIT 217 or GCIT 218 or GCIT 225 or GER 101 or GER 201 or ITAL 101 or ITAL 201 or ITAL 301 or ITAL 401 or JAPN 101 or JAPN 201 or JAPN 301 or JAPN 401 or SPAN 101 or SPAN 201 or SPAN 301 or SPAN 401 or SPAN 202 or SPAN 302 or GCIT 398 or GDIV 398 or GCIT 198 or GDIV 198 or FREN 101 or FREN 201 or FREN 301 or FREN 401 or FREN 102 or FREN 202 or GER 102 or ITAL 102 or ITAL 202 or JAPN 102 or JAPN 202 or SPAN 102 or SPAN 110 or SPAN 210) [Min Grade: D-]

Schedule Type: Lecture

ISEM 301: Animals and Society

Animals: we encounter them in our backyards and on our plates; in sacred texts and as sports mascots. Given the many ways they figure in our societies, how should humans relate to their fellow animals? This course surveys how the treatment of animals across the domains of art, science, literature, philosophy, and/or culture produces both intersecting and contradictory understandings of the relationship between animals and humans. Students will consider issues of contemporary concern involving animals, particularly as regards students' future professions.

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: (WRIT 201 or WRIT 202) and (GDIV 200 or GDIV 221 or GDIV 229 or GDIV 231 or GDIV 233 or GDIV 235 or GDIV 333 or GCIT 200 or GCIT 210 or GCIT 211 or GCIT 214 or GCIT 215 or GCIT 225 or GER 101 or GER 201 or ITAL 101 or ITAL 201 or ITAL 301 or ITAL 401 or JAPN 101 or JAPN 201 or JAPN 301 or JAPN 401 or SPAN 101 or SPAN 201 or SPAN 301 or SPAN 401 or SPAN 202 or SPAN 302 or GCIT 398 or GDIV 398 or GCIT 198 or GDIV 198 or FREN 101 or FREN 201 or FREN 301 or FREN 401) [Min Grade: D-]

Schedule Type: Lecture

ISEM 302: Telling Stories, Selling Stories

We are constantly surrounded by stories in our daily lives - at home, at play, and in the workplace - and every day we create just as many stories of our own as we move through all of these spaces. In this course, we analyze, evaluate, and create narratives. We learn and discuss the parts that make up a narrative, and consider how these components are used by storytellers across media and disciplines to create narratives that are (or are not) effective, compelling, ethical, and successful at achieving their purpose. [Writing Intensive] Prerequisites: WRIT-20x, GDIV-2xx or GCIT-2xx

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: (WRIT 201 or WRIT 202) and (GDIV 200 or GDIV 221 or GDIV 229 or GDIV 231 or GDIV 233 or GDIV 234 or GDIV 235 or GDIV 236 or GDIV 333 or GCIT 200 or GCIT 210 or GCIT 211 or GCIT 214 or GCIT 215 or GCIT 216 or GCIT 217 or GCIT 218 or GCIT 225 or GER 101 or GER 201 or ITAL 101 or ITAL 201 or ITAL 301 or ITAL 401 or JAPN 101 or JAPN 201 or JAPN 301 or JAPN 401 or SPAN 101 or SPAN 201 or SPAN 301 or SPAN 401 or SPAN 202 or SPAN 302 or GCIT 398 or GDIV 398 or GCIT 198 or GDIV 198 or FREN 101 or FREN 201 or FREN 301 or FREN 401 or FREN 102 or FREN 202 or GER 102 or ITAL 102 or ITAL 202 or JAPN 102 or JAPN 202 or SPAN 102 or SPAN 110 or SPAN 210) [Min Grade: D-]

Schedule Type: Lecture

ISEM 303: Perspectives on Psychoanalysis

In this course, students will examine the theories and history of psychoanalysis –as well as the many social, cultural, scientific, medical, and philosophical dimensions surrounding this most influential and controversial of disciplines. Over the course of the semester, the class will chart the various schools of psychoanalysis, the different personalities involved (Freud, Jung, Klein, Lacan, Fanon, and others), the often-fierce debates and rivalries between them, how the discipline has changed as it has spread geographically and over the generations, and the various types of critique it has encountered (feminist, leftist, positivist, anti-psychiatry, et cetera).

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: (WRIT 201 or WRIT 202) and (GDIV 200 or GDIV 221 or GDIV 229 or GDIV 231 or GDIV 233 or GDIV 234 or GDIV 235 or GDIV 236 or GDIV 333 or GCIT 200 or GCIT 210 or GCIT 211 or GCIT 214 or GCIT 215 or GCIT 216 or GCIT 217 or GCIT 218 or GCIT 225 or GER 101 or GER 201 or ITAL 101 or ITAL 201 or ITAL 301 or ITAL 401 or JAPN 101 or JAPN 201 or JAPN 301 or JAPN 401 or SPAN 101 or SPAN 201 or SPAN 301 or SPAN 401 or SPAN 302 or SPAN 202 or GCIT 398 or GDIV 398 or GCIT 198 or GDIV 198 or FREN 101 or FREN 201 or FREN 301 or FREN 401 or FREN 102 or FREN 202 or GER 102 or ITAL 102 or ITAL 202 or JAPN 102 or JAPN 202 or SPAN 102 or SPAN 110 or SPAN 210) [Min Grade: D-]

Schedule Type: Lecture, On-Line

ISEM 304: Cultures of Health & Illness

How do cultures and societies shape experiences of illness and health? How do cultures affect and communicate conceptions of illness, health, and medicine? In this writing-intensive course, students will study social and cultural dimensions of health, illness and medicine to research the wider contexts in which individuals and societies view and respond to illness and health. Students will draw from multiple disciplines such as literature, rhetoric, anthropology, sociology, history, and philosophy to investigate and propose solutions to current medical and cultural issues that impact citizens and healthcare practitioners in the U.S. and around the globe. [Writing Intensive] Prerequisite: WRIT-2XX, GCIT-2XX or GDIV-2XX

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: (WRIT 201 or WRIT 202) and (GDIV 200 or GDIV 221 or GDIV 229 or GDIV 231 or GDIV 233 or GDIV 235 or GDIV 333 or GCIT 200 or GCIT 210 or GCIT 211 or GCIT 214 or GCIT 215 or GCIT 225 or FREN 101 or FREN 201 or FREN 301 or FREN 401 or JAPN 101 or JAPN 201 or JAPN 301 or JAPN 401 or SPAN 101 or SPAN 201 or SPAN 301 or SPAN 401 or SPAN 202 or SPAN 302) [Min Grade: D]

Schedule Type: Lecture

ISEM 305: Healthcare Economics & Policy**Credits:** 3**College:** Jefferson College of Humanities & Sciences

Prerequisites: (WRIT 201 or WRIT 202) and (GDIV 200 or GDIV 221 or GDIV 229 or GDIV 231 or GDIV 233 or GDIV 234 or GDIV 235 or GDIV 236 or GDIV 333 or GCIT 200 or GCIT 210 or GCIT 211 or GCIT 214 or GCIT 215 or GCIT 216 or GCIT 217 or GCIT 218 or GCIT 225 or FREN 101 or FREN 201 or FREN 301 or FREN 401 or JAPN 101 or JAPN 201 or JAPN 301 or JAPN 401 or SPAN 101 or SPAN 201 or SPAN 301 or SPAN 401 or SPAN 202 or SPAN 302 or GER 101 or GER 201 or ITAL 101 or ITAL 201 or ITAL 301 or ITAL 401 or GCIT 398 or GDIV 398 or GCIT 198 or GDIV 198 or FREN 102 or FREN 202 or GER 102 or ITAL 102 or ITAL 202 or JAPN 102 or JAPN 202 or SPAN 102 or SPAN 110 or SPAN 210) [Min Grade: D-]

Schedule Type: Lecture**ISEM 306: Principles of Sustainable Desg**

This course surveys the philosophies, principles, perspectives, and values of sustainability as they relate to design, using Integral Sustainable Design to explore environmental, social/cultural, economic, and experiential frameworks across scale, time, and differing perspectives in the service of effective collaboration across disciplines and differences. Questions regarding the impact of design and designers on the pressing issues of social inequity, environmental justice, and structures of privilege are integrated into all course topics. Students will use integrative design, design thinking and co-creative design processes to apply sustainability concepts and values to the design of projects, products, processes and policies across all relevant scales.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment

Prerequisites: (WRIT 201 or WRIT 202) and (GDIV 200 or GDIV 221 or GDIV 229 or GDIV 231 or GDIV 233 or GDIV 235 or GDIV 333 or GCIT 200 or GCIT 210 or GCIT 211 or GCIT 214 or GCIT 215 or GCIT 225 or GER 101 or GER 201 or ITAL 101 or ITAL 201 or ITAL 301 or ITAL 401 or JAPN 101 or JAPN 201 or JAPN 301 or JAPN 401 or SPAN 101 or SPAN 201 or SPAN 301 or SPAN 401 or SPAN 202 or SPAN 302 or GCIT 398 or GDIV 398 or GCIT 198 or GDIV 198) [Min Grade: D-]

Schedule Type: Seminar**ISEM 307: Digital Communication & Culture**

Students will consider communication technologies and how and what people communicate using those technologies. We'll examine the role of communication technologies in society and culture, with an emphasis on how they function in the information age. This will include both the social and cultural influences that have shaped the development of various emerging media, information, and communication technologies.

Credits: 3**College:** Jefferson College of Humanities & Sciences

Prerequisites: (WRIT 201 or WRIT 202) and (GDIV 200 or GDIV 221 or GDIV 229 or GDIV 231 or GDIV 233 or GDIV 234 or GDIV 235 or GDIV 236 or GDIV 333 or GCIT 200 or GCIT 210 or GCIT 211 or GCIT 214 or GCIT 215 or GCIT 216 or GCIT 217 or GCIT 218 or GCIT 225 or GER 101 or GER 201 or ITAL 101 or ITAL 201 or ITAL 301 or ITAL 401 or JAPN 101 or JAPN 201 or JAPN 301 or JAPN 401 or FREN 101 or FREN 201 or FREN 301 or FREN 401 or SPAN 101 or SPAN 201 or SPAN 301 or SPAN 401 or SPAN 202 or SPAN 302 or GCIT 398 or GDIV 398 or GCIT 198 or GDIV 198 or FREN 102 or FREN 202 or ITAL 102 or ITAL 202 or JAPN 102 or JAPN 202 or GER 102 or SPAN 102 or SPAN 110 or SPAN 210) [Min Grade: D-]

Schedule Type: Hybrid, Lecture, On-Line**ISEM 308: Health in the Humanities**

In this course, students will study the impact of culture on the field of healthcare, examining notions of patient, practitioner, the body, disability, health and wellness. Students will perform close readings of artistic, narrative, and theoretical texts to explore how cultural artifacts shape and reflect health practices. How does storytelling engage with, respond to, and critique medical discourses? How are health outcomes influenced by money and power? How can we imagine a more empathetic version of medicine and care? This course focuses on skills of observation, analysis, contextualization, and reflection, and examines how the creative arts and humanities can be instruments in affirming trust, empowerment, and dignity, as well as effective models for true care. This course can be counted towards the Health Humanities certification.

Credits: 3**College:** Jefferson College of Humanities & Sciences

Prerequisites: (WRIT 201 or WRIT 202) and (GDIV 200 or GDIV 221 or GDIV 229 or GDIV 231 or GDIV 233 or GDIV 234 or GDIV 235 or GDIV 236 or GDIV 333 or GCIT 200 or GCIT 210 or GCIT 211 or GCIT 214 or GCIT 215 or GCIT 216 or GCIT 217 or GCIT 218 or GCIT 225 or GER 101 or GER 201 or ITAL 101 or ITAL 201 or ITAL 301 or ITAL 401 or JAPN 101 or JAPN 201 or JAPN 301 or JAPN 401 or FREN 101 or FREN 201 or FREN 301 or FREN 401 or SPAN 101 or SPAN 201 or SPAN 301 or SPAN 401 or SPAN 202 or SPAN 302 or GCIT 398 or GDIV 398 or GDIV 198 or GCIT 198 or FREN 102 or FREN 202 or GER 102 or ITAL 102 or ITAL 202 or JAPN 102 or JAPN 202 or SPAN 102 or SPAN 110 or SPAN 210) [Min Grade: D-]

Schedule Type: Hybrid, Lecture, On-Line**ISEM 313: Conspiracy Theories: Analysis**

The political use of conspiracy theories is not unique in American Politics. Baseless claims supported by conjecture and rumor instead of reliable evidence have colored public perception of events as disparate as the assassination of JFK, the Moon Landing, 9/11, the death of Vince Foster, the Boston Marathon Bombing, and the mass shooting at Sandy Hook, Once dismissed as a hobby for those wearing tin foil hats, conspiracy belief now factors into electoral politics, policymaking, and even foreign policy. On the other hand, real conspiracies such as Watergate and Columbine have contributed to the problem by creating a climate of distrust in government and in the very notion of expertise. In this class the students will first learn the psychology of conspiracy theory formation and belief and then we will deconstruct each theory focusing on the reason its creation, those behind its dissemination and creation, and evaluate of credibility of supporting evidence. The student will learn how to vet sources, and apply logical analysis using verifiable, not alternative, facts.

Credits: 3**College:** Jefferson College of Humanities & Sciences

Prerequisites: (WRIT 201 or WRIT 202) and (GDIV 200 or GDIV 221 or GDIV 229 or GDIV 231 or GDIV 233 or GDIV 234 or GDIV 235 or GDIV 236 or GDIV 333 or GCIT 200 or GCIT 210 or GCIT 211 or GCIT 214 or GCIT 215 or GCIT 216 or GCIT 217 or GCIT 218 or GCIT 225 or GER 101 or GER 201 or ITAL 101 or ITAL 201 or ITAL 301 or ITAL 401 or JAPN 101 or JAPN 201 or JAPN 301 or JAPN 401 or SPAN 101 or SPAN 201 or SPAN 301 or SPAN 401 or SPAN 202 or SPAN 302 or GCIT 398 or GDIV 398 or GCIT 198 or GDIV 198 or FREN 101 or FREN 201 or FREN 301 or FREN 401 or FREN 102 or FREN 202 or GER 102 or ITAL 102 or ITAL 202 or JAPN 102 or JAPN 202 or SPAN 102 or SPAN 110 or SPAN 210) [Min Grade: D-]

Schedule Type: Lecture

ISEM 314: The Internet and the Law

This course considers how digital networked technologies have impacted our legal and social institutions. Subjects may include: global regulation of the Internet; domain names and trademarks; pornography and First Amendment Free Speech issues; platforms and third-party liability; platform governance and moderation; computer fraud and abuse; mass data collection and web scraping; digital evidence for criminal and civil cases; combatting online harassment; and privacy and surveillance.

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: (WRIT 201 or WRIT 202) and (GDIV 200 or GDIV 221 or GDIV 229 or GDIV 231 or GDIV 233 or GDIV 235 or GDIV 333 or GCIT 200 or GCIT 210 or GCIT 211 or GCIT 214 or GCIT 215 or GCIT 225 or GER 101 or GER 201 or ITAL 101 or ITAL 201 or ITAL 301 or ITAL 401 or JAPN 101 or JAPN 201 or JAPN 301 or JAPN 401 or SPAN 101 or SPAN 201 or SPAN 301 or SPAN 401 or SPAN 202 or SPAN 302 or GCIT 398 or GDIV 398 or GCIT 198 or GDIV 198) [Min Grade: D-]

Schedule Type: Lecture

ISEM 315: Global Spycraft

In this course, students will learn about espionage as it is practiced in various regions of the world and across different historical periods. It will also examine the tools that spies use and the skills that they employ. Via the analysis of spy memoirs, novels, scholarly publications, intelligence briefings, films/TV series, and podcasts, students will explore instances in which espionage has been beneficial, counterproductive, and even disastrous. Additional emphasis will be placed on the power dynamics inherent to spycraft, including those related to class, gender, and race. At the end of the course, students will be able to shed light on why the "dark art" of espionage has long been a source of inspiration and intrigue for writers, directors, and the general public alike.

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: (WRIT 201 or WRIT 202) and (GDIV 200 or GDIV 221 or GDIV 229 or GDIV 231 or GDIV 233 or GDIV 235 or GDIV 333 or GCIT 200 or GCIT 210 or GCIT 211 or GCIT 214 or GCIT 215 or GCIT 225 or GER 101 or GER 201 or ITAL 101 or ITAL 201 or ITAL 301 or ITAL 401 or JAPN 101 or JAPN 201 or JAPN 301 or JAPN 401 or SPAN 101 or SPAN 201 or SPAN 301 or SPAN 401 or SPAN 202 or SPAN 302 or GCIT 398 or GDIV 398 or GCIT 198 or GDIV 198) [Min Grade: D-]

Schedule Type: Lecture

ISEM 340: Sustainable Development & Global South

This course examines sustainability issues in non-Western countries around the world. Students will consider how local economic, political and cultural factors help shape sustainability strategies and examine the relationship between economic development and sustainability in a comparative framework. [Writing Intensive] Prerequisites: WRIT-201/202 and GDIV-2xx or GCIT-2xx

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: (WRIT 201 or WRIT 202) and (GDIV 200 or GDIV 221 or GDIV 229 or GDIV 231 or GDIV 233 or GDIV 234 or GDIV 235 or GDIV 236 or GDIV 333 or GCIT 200 or GCIT 210 or GCIT 211 or GCIT 214 or GCIT 215 or GCIT 216 or GCIT 217 or GCIT 218 or GCIT 225 or GER 101 or GER 201 or ITAL 101 or ITAL 201 or ITAL 301 or ITAL 401 or JAPN 101 or JAPN 201 or JAPN 301 or JAPN 401 or SPAN 101 or SPAN 201 or SPAN 301 or SPAN 401 or SPAN 202 or SPAN 302 or GCIT 398 or GDIV 398 or GCIT 198 or GDIV 198 or FREN 101 or FREN 201 or FREN 301 or FREN 401 or FREN 102 or FREN 202 or GER 102 or ITAL 102 or ITAL 202 or JAPN 102 or JAPN 202 or SPAN 102 or SPAN 110 or SPAN 210) [Min Grade: D-]

Schedule Type: Lecture

ISEM 360: Environments for Well-Being

This course provides an introduction to a range of viewpoints, concepts, and characteristics of human behavior in existing designed spaces. Cultural, social, and psychological factors are examined, e.g., relationships to water, responses to open and enclosed spaces (both interior and exterior), roles of textures and aromas, relationships to the natural environment, etc. Various theories and methods of environmental assessment and design are studied that are based on an understanding of mutually supportive relationships between people and their physical environment. This course looks at how people use and are impacted by various environments and stimuli from a range of cultural, psychological and physical perspectives. [Writing Intensive]

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Prerequisites: (WRIT 201 or WRIT 202) and (GDIV 200 or GDIV 221 or GDIV 229 or GDIV 231 or GDIV 233 or GDIV 234 or GDIV 235 or GDIV 236 or GDIV 333 or GCIT 200 or GCIT 210 or GCIT 211 or GCIT 214 or GCIT 215 or GCIT 216 or GCIT 217 or GCIT 218 or GCIT 225 or GER 101 or GER 201 or ITAL 101 or ITAL 201 or ITAL 301 or ITAL 401 or JAPN 101 or JAPN 201 or JAPN 301 or JAPN 401 or SPAN 101 or SPAN 201 or SPAN 301 or SPAN 401 or SPAN 202 or SPAN 302 or GCIT 398 or GDIV 398 or GCIT 198 or GDIV 198 or FREN 101 or FREN 201 or FREN 301 or FREN 401 or FREN 102 or FREN 202 or GER 102 or ITAL 102 or ITAL 202 or JAPN 102 or JAPN 202 or SPAN 102 or SPAN 110 or SPAN 210) [Min Grade: D-]

Schedule Type: Lecture

ISEM 398: Transfer Integrative Seminar

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture

Interdepartmental (MD) (IDPT) Interdisciplinary (IDSC)

Interdisciplinary Studies (INDS)

INDS 101: Intro to Interdisc Studies

This course will introduce students to the methods, history and theories of the discipline of interdisciplinary studies. Students will identify complex real-world problems and begin to build interdisciplinary pathways towards their solutions. Students will also identify disciplinary priorities and practices and articulate the bridges between disciplines and professions as they begin to chart their individual professional paths.

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

INDS 200: Interdisciplinary Methods

How do interdisciplinary thinkers solve complex, important problems in today's world? What skills and strategies are available to define complex problems and create methods to solve them? In this course, students hone their skills in asking good interdisciplinary research questions about complex, real-world problems and develop a working knowledge of diverse research methods from multiple disciplines and interdisciplinary approaches. Students will also learn to apply methods and present research ethically and effectively.

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: INDS 101 [Min Grade: D]

Schedule Type: By Appointment - 1 student, Lecture

INDS 297: Interdisc Elective Transfer

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

INDS 298: Interdisc Elective Transfer

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

INDS 299: Interdisc Elective Transfer

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

INDS 392: Interdisc Specializ Transfer

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

INDS 393: Interdisc Specializ Transfer

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

INDS 394: Interdisc Specializ Transfer

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

INDS 395: Interdisc Specializ Transfer

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

INDS 396: Interdisc Specializ Transfer

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

INDS 397: Interdisc Specializ Transfer

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

INDS 398: Interdisc Specializ Transfer

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

INDS 399: Interdisc Specializ Transfer

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

INDS 499: Interdisciplinary Capstone

This course forms the capstone experience for Interdisciplinary Studies majors. Students will conduct extensive original research into a real-world problem or issue using interdisciplinary methods and approaches and will present their research to relevant stakeholders and the TJU community. Students will also research and produce a planning document to chart their individual career paths.

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: INDS 101 and INDS 200 [Min Grade: D]

Schedule Type: Lecture

Interior Decorating (CIND) Interior Design (INTD)

INTD 3XX: INTD Designated Elective

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: Lecture

INTD 106: Tech Drawing & Graph Rep

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Prerequisites: DRAW 101 and ARFD 103 [Min Grade: D]

Schedule Type: Lecture, Studio

INTD 201: Design 3 for Interior Design

This studio examines the elements, principles and theories of interior design within the framework of residential and hospitality design. Students will explore and synthesize conceptual, theoretical, functional, and aesthetic issues. Additional foci include the organization and interrelationship of multi-level interior spaces, elements of enclosure, human behavior issues, symbolism and socio-cultural factors. The craft of making and the role of color, materials, furniture, fixtures and equipment in defining spaces and environmental experience will be emphasized.

Credits: 4

College: Jefferson Coll of Architecture & Built Environment

Prerequisites: (ARFD 109 Min Grade: D or ARFD 108 Min Grade: D or INTD 109 Min Grade: D) and INTD 102 Min Grade: C

Schedule Type: Studio

INTD 202: Design 4 for Interior Design

Through diverse design projects, this studio introduces students to the conceptual, theoretical, functional and aesthetic issues related to civic/educational and commercial interiors for contrasting populations. The integration of intuitive and structured design processes will be emphasized. The development of spaces, selection of furniture, fixtures, equipment and materials will be made in relation to performance and experiential requirements. This course incorporates collaboration, research, writing, and analysis to explore human behavior and needs in the built environment.

Credits: 4

College: Jefferson Coll of Architecture & Built Environment

Prerequisites: INTD 201 [Min Grade: C]

Schedule Type: Studio

INTD 206: Interior Building Technology

This course focuses on construction and installation as it specifically relates to interior design. Students will be introduced to the nature and characteristics of interior detailing in relation to interior construction such as architectural woodwork, millwork, partitions, floors, ceilings, stairs, custom cabinetry, furniture and specialty elements. The influence of interior finish materials on interior form and detailing will be explored. Additional foci include human factors, building codes, accessibility requirements, fire safety, materials regulations and construction documentation.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Prerequisites: ARDS 210 Min Grade: D and INTD 201 Min Grade: C

Schedule Type: Lab, Lecture

INTD 208: Presentation Techniques

This elective course explores several types of rendering techniques for interior design and architectural spaces. It consists of discussion, demonstration and experimentation of freehand and drafted ink work, graphite, color pencils, markers, watercolors, pastels and various reproduction presentation methods.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Prerequisites: INTD 201 [Min Grade: D]

Schedule Type: Lecture, Lecture/Lab, Studio

INTD 209: Visualization 3: Interior Des.

The primary intent of this course is to establish the computer as an effective tool in the design and presentation process. The course will focus on two primary areas in this regard: visualizing design concepts in three dimensions and communicating those concepts in a manner consistent with interior design studio level work. Methods include digital model construction, creating and applying surface materials, lighting, rendering, and post-processing.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: Lecture, Lecture/Lab

INTD 301: Design 5 for Interior Design

This interior design studio challenges students with increased complexity of three-dimensional interior space, program, concept, and design process in the context of community oriented commercial/retail design. Students will translate their design thinking into comprehensive solutions that address place making, branding, construction technology, materiality, lighting design, human factors, furniture selection/planning, building codes and standards. This studio incorporates collaboration to enhance understanding of teamwork in design practice.

Credits: 6

College: Jefferson Coll of Architecture & Built Environment

Prerequisites: INTD 202 [Min Grade: C]

Schedule Type: Studio

INTD 302: Design 6 for Interior Design

This studio concentrates on contemporary issues relating to business/office typologies, building technology, and sustainable design. Design and technological issues are addressed through: an understanding of office culture, form making, construction systems, solar considerations, indoor environmental quality, HVAC systems, space planning, material and finish selection, lighting design, and integration of systems furniture and equipment. Solutions emphasize holistic and sustainable design thinking, organization of complex spatial responses, and the understanding that design is inherently constructive in nature.

Credits: 6

College: Jefferson Coll of Architecture & Built Environment

Prerequisites: INTD 301 [Min Grade: C]

Schedule Type: Studio

INTD 304: Integrated Community Service

This integrated community service course is required in the Interior Design major. It is an opportunity for students to use and apply their acquired knowledge in a "real world" setting and to work in integrated and collaborative teams. Students will experience the reciprocal nature and responsibility of community service work as fully participating citizens within the greater Philadelphia region.

Credits: 0.5

College: Jefferson Coll of Architecture & Built Environment

Prerequisites: INTD 202 [Min Grade: C]

Schedule Type: Studio

INTD 305: Interior Building Systems

This mandatory course will focus on the understanding and application of a broad range of mechanical, electrical, lighting, acoustical, plumbing, HVAC, security and other building systems in the context of interior design. Students will be introduced to the nature and characteristics of fire detection, protection and suppression in building interiors. The critical role of interior building systems in establishing and maintaining the health, safety and welfare of users will be emphasized.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Prerequisites: INTD 206 and INTD 202 [Min Grade: D]

Schedule Type: Lab, Lecture, Lecture/Lab

INTD 306: Adv Visualization: Interiors

This course teaches advanced digital three-dimensional modeling, rendering, and animation techniques with a focus on interior environments. Emphasis is placed on accurate and realistic representation of interior spaces, forms, materials, furniture, color, and lighting effects, and the creation of virtual walkthroughs. These professional level skills enhance design representations and presentations. Students complete a series of exercises and projects covering a series of advanced digital techniques.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Prerequisites:** (ARDS 208 or ARDS 209) and INTD 202 [Min Grade: C]**Schedule Type:** Lecture, Lecture/Studio Combination, Studio**INTD 307: History 4: Modern to Contemporary**

WRITING INTENSIVE: History 4: Modern/Contemporary Interiors, Architecture & Design (1930-Present) This course offers a global view of major historical movements and theoretical constructs from 1930 to the present through the lens of the interior design discipline. Discussion focuses on the societal, environmental, political, economic, technological, and psychological aspects that shape the greater context for interior design and the allied arts. This course will strengthen the students' education by focusing on interior design history and theory which will support and deepen their knowledge, perspectives, and awareness of crucial disciplinary issues.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Prerequisites:** AHST 305 [Min Grade: D]**Schedule Type:** Lecture, On-Line**INTD 308: Cad 2 for Interior Design**

Following Visualization 1: Digital Modeling, the introductory computer-aided design course, CAD 2 for Interior Design further develops students' design communication and documentation skills utilizing AutoCAD and BIM software. Students will have the opportunity to produce interior design working drawings and advance their knowledge of professional interior design construction and specification documents.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Prerequisites:** ARDS 208 and INTD 206 and INTD 202 [Min Grade: D]**Schedule Type:** Lecture, Studio**INTD 309: Vis 4: Construction Documentation**

Following Visualization 3: Digital Modeling, this computer-aided design course, further develops students' design communication and documentation skills utilizing AutoCAD and BIM software. Students will have the opportunity to produce interior design working drawings and advance their knowledge of professional interior design construction and specification documents.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Hybrid, Lecture, Lecture/Lab, Lecture/Studio Combination, Studio**INTD 310: Textiles & Mat for Interiors**

This course introduces the role of textiles in the creation of commercial and residential interiors. Key topics include the selection, specification and application of textiles based on their properties and performance criteria; sources of textiles and fabrics; the concept of sustainable resources; appropriate installation methods and maintenance requirements of textiles in interior applications; codes; regulations and standards related to use of textiles in interiors; and estimating material requirements such as carpeting, wallpaper and ceiling finishes.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Prerequisites:** INTD 201 [Min Grade: C]**Schedule Type:** Lecture**INTD 311: Introduction to Set Design**

This elective focuses on developing the setting for the action of a play. The set designer develops many of the same skills exercised by architects/interior designers: mastery of design fundamentals, understanding of time and place, knowledge of construction techniques and awareness of how people use space. Steps to creating the stage set will include: careful reading and discussion of selected plays, surveying an existing stage, assisting in the construction of a stage set and attending assigned performances.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Prerequisites:** ARCH 311 or ARCH 312 or LARC 302 or INTD 302 [Min Grade: C]**Schedule Type:** Lecture, Studio**INTD 325: Furniture Design**

This beginning-level elective course is intended to provide students with a basic knowledge of the aspects involved in furniture design. The goal is to expose students to the various means through which one engages in product design. Emphasis is on the fabrication process in addition to proto-typing, testing and revision. The course consists of readings, brief lectures, class discussions and studio projects that cover the range of information that designers need to know to be able to specify, design and evaluate furniture-related products for the built environment. A significant amount of class time will be devoted to the development, design and revision of projects.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Prerequisites:** INTD 201 or ARCH 213 or INDD 201 or LARC 201 [Min Grade: C]**Schedule Type:** Lecture, Studio**INTD 398: INTD Designated Elective****Credits:** 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Lecture

INTD 401: Design 7 for Interior Design

This advanced comprehensive studio emphasizes the resolution of design issues in a semester-long specialized project. It spans from schematic design through design development and construction documentation and builds upon the knowledge acquired in all previous design, history/theory, and technical courses. Students synthesize their research and design ideation and apply their knowledge of typology, program, function, form making, planning, human behavior, construction, materials, building systems, acoustics, lighting, FF&E, codes and standards in a comprehensive final presentation.

Credits: 6

College: Jefferson Coll of Architecture & Built Environment

Prerequisites: INTD 302 [Min Grade: D]

Schedule Type: Studio

INTD 412: Int Prof Pract & Contract Dsgn

In this seminar, the interior design student will analyze the specialized services performed by the professional designer by studying the administrative, legal, ethical and financial aspects of professional practice. Contract documents, specifications, safety standards and building codes will be studied within the context of a non-residential (contract) design project.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Prerequisites: INTD 206 and INTD 301 [Min Grade: D]

Schedule Type: Lab, Lecture

INTD 487: Capstone Res & Prog. for ID

This course gives students the opportunity to assess their inclinations in the field and to select a project that addresses their specific interest. Students are expected to generate individualized research and programming to be used for design and development in their Capstone Project the following semester. They will produce a Capstone Research & Programming Document, which will be the result of research, analysis, and the synthesis of information. It will articulate a clear definition of project parameters and programming. The process of generating this document will recapitulate and augment the research and programming process, which students have been exposed to in previous interior design studios.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Prerequisites: INTD 302 [Min Grade: C]

Schedule Type: Lecture, Lecture/Studio Combination, Studio

INTD 488: Capstone Project Interior Des.

The interior design Capstone semester provides students with an opportunity to focus on an area of concentration in a design project, which will be independently developed with a designated faculty member. The student must demonstrate aptitude and understanding of architectural and interior design theory, principles, and technology, as well as, overall design competence. The Capstone project includes research in the student's selected problem area, development of the design concept, detailing and creative presentation of the design investigation.

Credits: 6

College: Jefferson Coll of Architecture & Built Environment

Prerequisites: INTD 401 and INTD 487 [Min Grade: C]

Schedule Type: Studio

Internship (INTN)

INTN 493B: Internship II

Credits: 0

College: Undefined College

Schedule Type: Internship 3 Credits, Internship .5 Credits, Internship 6 Credits

INTN 493C: Internship III

Credits: 0

College: Undefined College

Schedule Type: Internship 3 Credits, Internship .5 Credits, Internship 6 Credits

INTN 493F: Internship I

3 Credits Academic internships at Thomas Jefferson University aid students in professional preparation through a work experience directly related to their major and career goals. Three credit registration options exist in 0.5 credit, 3 credit and 6 credit increments. All are completed as elective academic courses, including a course syllabus focused on professional skill-building and written assignments. While the primary emphasis on the course is on the internship work experience, course assignments are incorporated to prompt reflection on the internship. This reflection is an integral component of experiential learning and students' overall career and professional development. The Career Services Center and designated Faculty Internship Advisor (FIA) from the student's major provide support and guidance during the semester of participation. Career Services staff is also available to assist students with internship search strategy prior to the internship. At the conclusion of the internship semester, all students are evaluated both by their employer and FIA, receiving a grade derived from successful performance as determined by the employer, the quality of academic assignments submitted to faculty, and completion of minimum required hours. All internships, regardless of credit registration, are a minimum of twelve weeks in length. Academic internships are offered during the fall, spring and twelve week summer semesters.

Credits: 3

College: Undefined College

Schedule Type: Internship 3 Credits

INTN 493S: Internship II

Credits: 3

College: Undefined College

Schedule Type: Internship 3 Credits

INTN 493T: Internship

6 Credits Academic internships at Thomas Jefferson University aid students in professional preparation through a work experience directly related to their major and career goals. Three credit registration options exist in 0.5 credit, 3 credit and 6 credit increments. All are completed as elective academic courses, including a course syllabus focused on professional skill-building and written assignments. While the primary emphasis on the course is on the internship work experience, course assignments are incorporated to prompt reflection on the internship. This reflection is an integral component of experiential learning and students' overall career and professional development. The Career Services Center and designated Faculty Internship Advisor (FIA) from the student's major provide support and guidance during the semester of participation. Career Services staff is also available to assist students with internship search strategy prior to the internship. At the conclusion of the internship semester, all students are evaluated both by their employer and FIA, receiving a grade derived from successful performance as determined by the employer, the quality of academic assignments submitted to faculty, and completion of minimum required hours. All internships, regardless of credit registration, are a minimum of twelve weeks in length. Academic internships are offered during the fall, spring and twelve week summer semesters.

Credits: 6**College:** Undefined College**Schedule Type:** Internship 6 Credits**INTN 493Z: Internship****Credits:** 0.5**College:** Undefined College**Schedule Type:** Internship .5 Credits

Intl Textual Analysis (TXIS)

TXIS 100: Textual Analysis for Intl Stu

This course is designed for international students who need additional English language comprehension skills to succeed in college. Students are introduced to the academic practices and expectations of U.S. universities and the skills required to understand course materials and to complete common course assignments. Student learn strategies for reading and thinking critically, expanding vocabulary, and retaining content, and complete assignments in academic reading, note taking, review techniques, and critical thinking skills. Students required to take TXIS-100 must not register for DBTU-114 in the same semester.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** By Appointment - 1 student, By Appointment, Lecture

Italian (ITAL)

ITAL 101: Beginning Italian I

A beginner's course designed for students with very little or no knowledge of the language. The focus is on basic oral expression, listening comprehension and acquiring simple reading and writing skills, so that students can gain confidence in the language and to begin to have conversations. The course will also develop cultural understanding, a key element to language learning, through the analysis of authentic visual media, written materials and cross-cultural interactions.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**ITAL 102: Beginning Italian II**

A beginner's course designed for students who have completed one semester of college-level language or the equivalent. The focus is on oral expression, listening comprehension and the acquisition of simple reading and writing skills, so that students can gain confidence in the language and conduct conversations and other social interactions in the language with some level of ease. The course will also develop cultural understanding, a key element to language learning, through the analysis of authentic visual media, written materials and cross-cultural interactions.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** ITAL 101**Schedule Type:** Lecture**ITAL 201: Intermediate Italian I****Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** By Appointment - 3 students, By Appointment - 4 students, By Appointment - 6 students, Lecture**ITAL 202: Intermediate Italian II****Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**ITAL 381: Independent Study for Italian****Credits:** 0**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Independent Study

Japanese (JAPN)

JAPN 101: Beginning Japanese I

A beginner's course designed for students with very little or no knowledge of the language. The focus is on basic oral expression, listening comprehension and acquiring simple reading and writing skills, so that students can gain confidence in the language and to begin to have conversations. The course will also develop cultural understanding, a key element to language learning, through the analysis of authentic visual media, written materials and cross-cultural interactions.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture, On-Line**JAPN 102: Beginning Japanese II**

A beginner's course designed for students who have completed one semester of college-level language or the equivalent. The focus is on oral expression, listening comprehension and the acquisition of simple reading and writing skills, so that students can gain confidence in the language and conduct conversations and other social interactions in the language with some level of ease. The course will also develop cultural understanding, a key element to language learning, through the analysis of authentic visual media, written materials and cross-cultural interactions.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture

JAPN 201: Intermediate Japanese I

A beginner's course designed for students who have completed one semester of college-level language or the equivalent. The focus is on oral expression, listening comprehension and the acquisition of simple reading and writing skills, so that students can gain confidence in the language and conduct conversations and other social interactions in the language with some level of ease. The course will also develop cultural understanding, a key element to language learning, through the analysis of authentic visual media, written materials and cross-cultural interactions.

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: By Appointment - 3 students, Lecture

JAPN 202: Intermediate Japanese II

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

Jr Sem (Integrative Prof Sem) (JINT)

JINT 3XX: Intergrative Prof. Seminars

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

JINT 310: Health Policy and Issues

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

JINT 321: Asking Ques, Findn Answers

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

JINT 330: What Color Is Your Ipod?

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

JINT 331: Color and Light

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

JINT 340: Afric. & Caribbean Vis.Culture

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

JINT 341: Inspirations From Nature

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

JINT 360: Environments for Well-Being

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: Lecture

JINT 378: Ethnographic Research Methods

Credits: 3

College: School of Design & Engineering

Prerequisites: WRIT 211 or WRIT 215 or WRIT 217 [Min Grade: D]

Schedule Type: Lecture

JINT 384: Applied Professional Ethics

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

JINT 399: Transfer JR Seminar

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

Jr. Sem. Liberal Arts (JSLA)

JSLA 300: Illness, Death, and Dying

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

JSLA 301: Italian Cinema: Reading Film

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

JSLA 302: Telling Stories,Selling Stories

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

JSLA 315: Food in America: Fast, Foreign

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

JSLA 316: Amer. in the Age of Mass Media

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

JSLA 317: Not-So-Straight History

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

JSLA 330: Sport, Society and Culture

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

JSLA 331: African American Cultur Idntis

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

JSLA 332: Modernity South of North

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

JSLA 333: Imaging the Middle East

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

JSLA 360: Creative Writing**Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**JSLA 361: From Fiction to Film****Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**JSLA 362: Artist & Society in Lit & Film****Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**JSLA 363: Shakespeare & Popular Culture****Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**JSLA 370: U.S. Recent Past****Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**JSLA 380: Human Rights****Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**JSLA 381: Gender Studies****Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**JSLA 390: The Urban Experience****Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**JSLA 391: The African Amer. Experience****Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**JSLA 398: Transfer Junior Seminar****Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**JSLA 399: Transfer Junior Seminar****Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture

Knitting (KNIT)

KNIT 201: Knit Technology I

The understanding of both weft- and warp-knit fabrics through an investigation of knit construction, machinery, principles and knit fabric analysis. Lectures are complemented with a series of lab exercises on hand-flat equipment and fabric-analysis projects designed to fully acquaint the student with the principles of knit-fabric design and production.

Credits: 3**College:** School of Design & Engineering**Prerequisites:** TEXT 101 or TEXT 104 [Min Grade: D]**Schedule Type:** Lab, Lecture, Lecture/Lab**KNIT 203: Knit Design Studio I**

Students will learn through individual development how to create a range of texture and color effects within knit design. Independent needle selection and the use of the presser foot will be explored within design areas involving Jacquard, held-stitch and tuck-stitch structures. Design ideas will be developed through to swatch/sketch proposals suitable for sweater production.

Credits: 3**College:** School of Design & Engineering**Prerequisites:** KNIT 201 [Min Grade: D]**Schedule Type:** Lecture, Lecture/Studio Combination, Studio**KNIT 205: Knit Technology II**

A further investigation into the construction, design and production of both weft- and warp-knit fabrics. Lectures will be complemented with lab work involving the design, production and analysis of knit fabrics upon power-knitting equipment.

Credits: 4**College:** School of Design & Engineering**Prerequisites:** KNIT 201 [Min Grade: D]**Schedule Type:** By Appointment - 1 student, By Appointment, Lab, Lecture, Lecture/Lab**KNIT 213: Knit Design Studio II**

A knit design studio elective for Textile or Fashion majors specializing in the knit-design area. Original design ideas will be developed through swatch/sketch presentations. Garment ideas will be developed through technical sketches and specifications into completed sweaters.

Credits: 3**College:** School of Design & Engineering**Prerequisites:** KNIT 326 [Min Grade: D]**Schedule Type:** Lecture, Lecture/Studio Combination, Studio**KNIT 307: Advanced Warp Knitting**

Covers all facets of warp-knitting technology with particular emphasis on the variety of machines and fabric construction in relation to end-use applications and markets. Tricot and raschel warp-knit fabric constructions are made in the knitting laboratory to illustrate the basic warp-knit stitches and lapping motions. A variety of warp-knit fabric samples are analyzed to illustrate basic fabric geometric parameters used in the design and production of warp-knit constructions. Also, students are required to research a unique warpknit process/product.

Credits: 4**College:** School of Design & Engineering**Prerequisites:** KNIT 201 [Min Grade: D]**Schedule Type:** Lab, Lecture**KNIT 326: Advanced Weft Knitting**

An exploration of the principles involved in knit design using CAD systems and electronic-knitting equipment. Students will design, write computer programs and knit their own fabrics on sweater- and jersey-knitting equipment. Fabric constructions such as Jacquard, links-links, cables, pointelle and presser-foot designs will be developed.

Credits: 3**College:** School of Design & Engineering**Prerequisites:** TEXT 205 [Min Grade: D]**Schedule Type:** Lecture, Studio**KNIT 401: Fashion Knit Design****Credits:** 3**College:** School of Design & Engineering**Schedule Type:** Lecture, Studio

Laboratory Sciences (LS)

LS 301: Molecular Biology

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line, Seminar

LS 302: Fund Clin & Experimental Tech

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lab, Lecture

LS 303: Fund Clinical & Exp Techniques

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lab, Lecture

LS 304: Biochemistry

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Clinical, Exam, Lecture, On-Line

LS 310: Intro to Molecular Diagnostics

Course focuses on the techniques, procedures and protocols, as well as the fundamental concepts, of assays used in the clinical molecular laboratory. These assays analyze DNA and RNA isolated from human specimens in order to diagnose human disease. Topics covered include DNA extraction, polymerase chain reaction (PCR), electrophoresis, DNA sequencing, DNA fingerprinting, and other assays for detection of unique DNA or RNA sequences. Laboratory sessions cover contemporary procedures for diagnostic testing including DNA isolation, real-time quantitative PCR, DNA fingerprinting, and electrophoresis.

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lab, Lecture, Lecture/Lab

LS 311: Functional Histology

Credits: 2.5

College: Jefferson College of Health Professions

Schedule Type: Lab, Lecture, Lecture/Lab, On-Line

LS 331: Immunology

Examines basic principles and mechanisms of the immune system in the physiologic condition and in disease. Immune mechanisms in infections, hypersensitivity reactions, autoimmunity, immunodeficiencies, as well as tumor and transplantation immunology are discussed. Lecture and laboratory.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lab, Lecture, Lecture/Lab, Lab/Lecture/Online, On-Line

LS 375: MLS Seminar

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Seminar

LS 399: Independent Study

This course will provide students with research exploration of a specific topic of interest to the individual student under the advisement of an instructor who will monitor and critique the student's progress

Credits: 1-6

College: Jefferson College of Health Professions

Schedule Type: Independent Study, On-Line

LS 403: Research Design

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

LS 404: Experimental Research I

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: Reseach

LS 405: Experimental Research II

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: Reseach

LS 413: Pathology

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture, Lecture/On-Line

LS 416: Comprehensive Examination

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

LS 426: Flow Cytometry I

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture/Lab

LS 427: Flow Cytometry II

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lab, Lecture, Lecture/Lab

LS 430: Lab Standards & Practices

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Exam, Lecture, Lecture/On-Line, On-Line

LS 440: Current Resrch in Biosciences

Examination and critical review of the literature pertaining to the bioscience disciplines of biotechnology, cytotechnology and medical technology. Students present research articles from contemporary literature for critical discussion. Students submit a written synopsis of two presented articles and one webinar of their choice. Graduate students, in addition, select a novel lab test or lab equipment found in the literature and produce a comprehensive proposal request suitable for publication.

Credits: 2,3

College: Jefferson College of Health Professions

Schedule Type: Clinical, Lab, Lecture, Seminar

LS 498: Special Topic in Lab Sci

Credits: 1-6

College: Jefferson College of Health Professions

Schedule Type: Independent Study, Lecture, Seminar

LS 499: Independent Study

Credits: 1-6

College: Jefferson College of Health Professions

Schedule Type: Independent Study

Language (LANG)

LANG 1XX: Language Placeholder

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

LANG 2XX: Language Placeholder II

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

LANG 198: Language I

Credits: 0.5

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

LANG 199: Language II

Credits: 0.5

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

LANG 398: Language III

Credits: 0.5

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

Law (LAW)

LAW 1XX: Law & Soc Designated Elective

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

LAW 3XX: Law Designated Elective

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

LAW 101: Introduction to Law & Society

An interdisciplinary introduction to legal systems and the law. Laws are created by social and cultural systems and affected by social, economic and political environments. This course will help students understand the development and impact of legal systems through case studies of many current legal issues and debates. There will also be an introduction to international comparisons.

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

LAW 103: Crime and Justice

This course provides an introduction to criminal justice in America. Students will examine the criminal justice system and process in the social context of justice and democratic society. They will study the police and criminal courts as political institutions that make decisions with an eye to the press and popular opinion as well as to race, class and justice.

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

LAW 105: American Government

This course provides an introduction to Law and American Government in action. In the course students will investigate the structures and processes of American Government and the relationships between the three branches of government within the context of how public policy is made and implemented.

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

LAW 105T: Transfer American Government

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

LAW 201: Constitutional Law

This course provides an examination of the sources, growth, development, and interpretation of the United States Constitution. It also examines the role of the Supreme Court in addressing issues of constitutionality, and considers key cases, historically and currently.

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

LAW 203: Comparative Legal Systems

This course provides an introduction to comparative law, and how different legal systems approach the law, legal analysis and legal culture. This course provides an examination of comparative legal systems, which consist of legal processes, institutions and culture, through a series of thematic comparative case studies. It also examines the role of dispute resolution processes in different legal cultures; addresses issues of civil, criminal and administrative law; and considers key cases, historically and currently.

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: WRIT 101 or WRIT 101G or WRIT 101S [Min Grade: D]

Schedule Type: Lecture

LAW 205: Philadelphia Law & Politics

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: (WRIT 101 or WRIT 101G) and (HIST 114 or AMST 114 or DBTU 114) [Min Grade: D]

Schedule Type: Lecture

LAW 207: Forensic Law

Forensic Science is the collection, study and presentation of scientific evidence in a court of law used in both criminal and civil trials. The goal of forensics is the dispassionate use of science to reliably establish facts free of claims of bias or mistake. The mission of this course is to introduce many of the techniques used daily in courts of law to establish the admissibility of evidence and to examine the benefits of forensics in the creation of this admissible evidence as well as its limitations and potential for misuse.

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: LAW 101 and (WRIT 211 or WRIT 215 or WRIT 217 or WRIT 201 or WRIT 202) [Min Grade: D]

Schedule Type: Lecture

LAW 210: Law In/For the Workplace

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

LAW 212: Intro to Law Enforcement

Introduction to Law Enforcement addresses the role that police officers play in society and the Criminal Justice System. The course is designed to highlight the structure and history of police; the nature of police work; police discretion and misconduct; the major trends and issues facing law enforcement; different types of policing strategies, and the future of the Law Enforcement field. The goal is to present students with potential situations that 21 century law enforcement is faced with and provide hands on real world techniques to understand and deal with challenges of the profession.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**LAW 213: Consp Ther:Hist,Analysis,Decon**

Students will examine popular and iconic conspiracy theories, real and imagined including 9/11, the JFK assassination and Watergate with the purpose of deconstructing the evidence, investigating the reason for their creation and analyzing their effect on American Society, culture and politics. Prerequisite is Writ 101

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** WRIT 101 or WRIT 101G or WRIT 101S [Min Grade: D]**Schedule Type:** Lecture**LAW 300: International Law**

This course provides an introduction to the international law system that examines the rules binding the international conduct of states and non-state actors. The course covers topics related to the sources and functions of international law, and related issues of jurisdiction and standing. It also focuses on international institutions, and specific issues in international law such as the rules of warfare and peacekeeping; human rights; international trade and communication.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** LAW 101 and (WRIT 211 or WRIT 215 or WRIT 217 or WRIT 201 or WRIT 202) [Min Grade: D]**Schedule Type:** Lecture, On-Line**LAW 301: Health, Law & Ethics**

This course provides students with the foundation to recognize, understand, and resolve legal and ethical issues associated with contemporary healthcare. It represents an introduction to the US legal system and the basics of ethical and bioethical issues. Students explore liability, conflict management, the consent process, and the business of medicine, privacy and the role of an ethics. Additionally students debate the ethical and legal consequences of contemporary health-related issues (such as end-of-life dilemmas, surrogacy and, organ donation).

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** WRIT 201 or WRIT 202 [Min Grade: D]**Schedule Type:** Lecture**LAW 302: Law and Ethics**

WRITING INTENSIVE: This course examines the intersection between ethical issues and law in the context of the United States. The course will consider contemporary cases that illustrate the intersection of contemporary legal and ethical issues. There will be a service-learning component to this class. [Writing Intensive]

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** LAW 101 and (WRIT 211 or WRIT 215 or WRIT 217 or WRIT 201 or WRIT 202) [Min Grade: D]**Schedule Type:** Lecture, On-Line**LAW 304: Law, Media & Society**

This course examines the dynamic interactions between law, technology and media and how they affect a variety of global social and legal issues, including the democratic process, civil rights, and how individuals relate to each other legally, socially, economically, and sexually.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**LAW 306: Legal Res, Wrtg & Moot Court**

WRITING INTENSIVE: This course will introduce students to the basics tenets of legal research, writing and persuasive arguing by way of a moot court appellate competition focusing on current controversial topics that affect both American law and society. [Writing Intensive]

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** LAW 101 and (WRIT 211 or WRIT 215 or WRIT 217 or WRIT 201 or WRIT 202) [Min Grade: D]**Schedule Type:** Lecture**LAW 308: Law, Women and Gender**

This course will examine how the courts and the democratic process have confronted issues of civil rights in the area of law and gender. Using court cases and legislative acts, students will study: (1) The historical denial of basic civil rights to women; (2) Gender discrimination and the law's efforts combat this discrimination; (3) Abortion rights; (4) Same-sex marriage, and (5) Violence against women and sexual assault. Students will learn how the law affects gender discrimination and analyze how well the law allows us to challenge discrimination.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** (WRIT 217 or WRIT 215 or WRIT 211 or WRIT 201 or WRIT 202) and (HIST 114 or DBTU 114 or AMST 114 or AMST 198) [Min Grade: D]**Schedule Type:** Lecture**LAW 310: Race and the Law**

The law has played a significant role in establishing what race and racism are in American society. From the conception of slavery in America, to the Jim Crow laws that segregated Black people, to the disproportionate criminalization and brutality against Black Americans, and onerous voting laws racism and white supremacy have persevered in the U.S. through law. The purpose of this class is to examine the role of the law in creating, perpetuating and enforcing racist actions, policies, behaviors and attitudes and how the law can be a tool in mitigating these established inequities.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** WRIT 101 or WRIT 101G or WRIT 101S [Min Grade: D]**Schedule Type:** Lecture**LAW 314: The Internet and the Law**

This course considers how digital networked technologies have impacted our legal and social institutions. Subjects may include: global regulation of the Internet; domain names and trademarks; pornography and First Amendment Free Speech issues; platforms and third-party liability; platform governance and moderation; computer fraud and abuse; mass data collection and web scraping; digital evidence for criminal and civil cases; combatting online harassment; and privacy and surveillance.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture

LAW 398: Law Designated Elective**Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**LAW 411: Senior Sem in First Amendment**

This course examines the first amendment rights of speech, press and association, and focuses on landmark Supreme Court rulings and scholarly commentary. The course will provide students with skills to critically interpret the First Amendment and apply lessons learned to their own lives. It will cover such issues as libel law, obscenity, symbolic speech, and freedom of the press and freedom of association.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** LAW 201 [Min Grade: D]**Schedule Type:** Lecture**LAW 499: Sr Cap:Public Policy Advocacy**

This capstone course for the Law and Society major combines a classroom seminar (50 minutes per week) on advocacy skills with a real-world public policy advocacy project within either a self-selected pre-existing organization or an initiative of the student's own creation and design. Students will also receive 100 minutes of designated instruction time, via the web, during which their E-Reports will be reviewed and the status of their projects will be discussed. Students will review and integrate the skills and knowledge they developed during previous courses in the Law and Society curriculum while also applying the principles of public policy theory and oral and written advocacy to the student's selected project. [Writing Intensive]

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** LAW 411 [Min Grade: D]**Schedule Type:** By Appointment - 1 student, By Appointment - 2 students, Lecture

Law Enforcement (LAWE)

LAWE 301: Plann for Law Enforcement Org**Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Hybrid, Lecture, Online By Appointment 8 Week, On-Line**LAWE 310: Contemp Law Enforc Strategy****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** By Appointment - 3 students, Lecture, Online By Appointment 8 Week, On-Line**LAWE 410: Adv Law Enforce Theory & Mgmt****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** By Appointment - 1 student, Lecture, On-Line**LAWE 499: Applied Project in Law Enforce****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, On-Line

Law Enforcement (Online) (LAWX)

LAWX 301: Plann for Law Enforcement Org**Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** By Appointment - 1 student, By Appointment - 2 students, On-Line**LAWX 310: Contemp Law Enforc Strategy****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** By Appointment - 1 student, By Appointment - 2 students, On-Line**LAWX 410: Adv Law Enforce Theory & Mgmt****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** By Appointment - 1 student, By Appointment - 2 students, On-Line**LAWX 499: Sr Cap:Public Policy Advocacy**

This capstone course for the Law and Society major combines a classroom seminar (50 minutes per week) on advocacy skills with a real-world public policy advocacy project within either a self-selected pre-existing organization or an initiative of the student's own creation and design. Students will also receive 100 minutes of designated instruction time, via the web, during which their E-Reports will be reviewed and the status of their projects will be discussed. Students will review and integrate the skills and knowledge they developed during previous courses in the Law and Society curriculum while also applying the principles of public policy theory and oral and written advocacy to the student's selected project. [Writing Intensive]

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** By Appointment - 1 student, By Appointment - 2 students, On-Line

Leadership & Homeland Security (LHS)

LHS 350: Fund of HmLand Defense & Secu

Overview of the homeland security situation in the post-9/11 era. Students will develop an understanding of factors that affect government efforts to prevent terrorist attacks in the U.S. including terrorist groups, both domestically and globally, organizations involved in Homeland Security, and the challenges and legal issues facing homeland security professionals. Students gain a basic understanding of homeland security principles, national security, and its importance in securing our borders.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** By Appointment - 1 student, By Appointment - 2 students, Lecture

LHS 360: Unconventional Conflict

This course provides an introduction and examination of terrorist threats to the United States in the form of unconventional conflict, sabotage, and subversion. Discussions explore the character and history of these threats, as well as examine the operational and organizational dynamics of terrorism. Individuals, group cells, and large organizations that are engaged in clandestine activity for political purpose or effect are explored. Effective measures for both countering and responding to these terrorism threats are discussed.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: By Appointment - 1 student, By Appointment - 4 students, Lecture

LHS 403: Critical Infrastructure

This course provides an introduction to the wide variety of threats to critical infrastructure sites and facilities in the United States from both terrorist activities and natural disasters. The importance of these sites to the nation's overall safety and security is examined, with Local, State, and National icons highlighted. The Department of Homeland Security and its concept of an "All Hazards" approach to disasters is explored, with focus on the core principles of Prevent, Prepare, Respond, and Recover.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: By Appointment - 1 student, Lecture

LHS 407: Disaster Policy & Politics

The response to and the planning for disasters and catastrophic events entails complex public policy decisions by local, state, and national political officials. A disaster event can influence many policy agendas, sometimes leading to sweeping changes by public officials that can have long term consequences for society. Both recent and historical disasters and their ensuing public policy changes are examined, with a focus on the perception versus the reality of effective legislation.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: By Appointment - 3 students, Lecture

LHS 499: Capstone Sem., Appl Project

Students will explore the relevant scholarly literature and then conduct an in-depth analysis of the Homeland Security sector and design an innovative project. Knowledge of statistical analysis, process planning, and data gathering will be used to complete their analysis and report on a contemporary topic or aspect of the sector. Students will demonstrate their ability to assess the efficacy of program design as well as describe the project planning and implementation process. Student projects are evaluated based on the capacity to incorporate familiarity with systems and planning in a comprehensive project in the context of their subject.

Credits: 3

College: Jefferson College of Health Professions

Prerequisites: STAT 311 and LHS 350 and LHS 360 and LHS 403 and LHS 407 and EMS 410 [Min Grade: D]

Schedule Type: By Appointment - 1 student, By Appointment, Lecture

Leadership (LDSP)

LDSP 315: Women in Leadership

Credits: 3

College: School of Business

Schedule Type: Lecture, On-Line

LDSP 361: Leadership Theory & Practice

This course provides a thorough review of the history of leadership theory and application, and culminates with an emphasis on transformational and visionary leadership. Ethical leadership also is covered in depth. Prerequisite: CLC 350 or CLCX 350 is recommended but not required.

Credits: 3

College: School of Business

Schedule Type: Lecture, On-Line

LDSP 365: Behavioral Dynamics in Orgs

This course moves progressively through individual, group, and organizational levels of behavior drawing on concepts and practices from the field of Organizational Behavior (OB). It also examines the interrelationship of behavioral phenomena among these levels. Studying OB provides a basic understanding of one's own and others' behavior, particularly in teams. It enhances students' ability to communicate and work effectively with others. This course will help students strengthen their people management skills so they can be successful leaders in any field they choose. Prerequisite: LDSP 361 or LDSX 361 recommended but not required.

Credits: 3

College: School of Business

Schedule Type: Lecture, On-Line

LDSP 368: Org. Theory & Development

Students draw on their experiences in previous organizational leadership courses, employing key concepts, theories and skills learned throughout the program toward the strategic analysis of organizations. Using Bolman and Deal's organizational frames concept, students synthesize key learnings across their education and explore an organization through four unique perspectives.

Credits: 3

College: School of Business

Schedule Type: By Appointment - 1 student, By Appointment - 2 students, Lecture, On-Line

LDSP 375: Leadership Development

This course presents leadership formation and development from a lifespan developmental perspective. Students will examine how family, school, work settings, and other environmental factors have helped and/or will help develop their transformational leadership potential and leadership effectiveness. Students will develop as authentic leaders by completing various free self-assessments designed to raise awareness of their strengths and opportunities for growth as leaders.

Credits: 3

College: School of Business

Schedule Type: Lecture, On-Line

LDSP 498: Org. Leadership Capstone

This course serves as a capstone course in the Organizational Leadership program. Students complete the SCPS Portfolio they have been assembling throughout their program. The portfolio provides students with an opportunity to look at the past, present, and future. Students reflect on personal growth and development during their program of study. Students also demonstrate ability to integrate knowledge and skills acquired throughout the programs by completing an integrative paper that addresses leadership, ethics, organizational analysis, self-leadership, diversity, reflections, and an action plan. The portfolio concludes with a professional development plan wherein students identify goals for continued professional growth and lifelong learning.

Credits: 3**College:** School of Business**Prerequisites:** (LDSP 361 or LDSX 361) and (LDSP 365 or LDSX 365) and (LDSP 368 or LDSX 368) and (LDSP 375 or LDSX 375) and (PHIL 222 or PHILX 222) [Min Grade: D]**Schedule Type:** By Appointment - 1 student, Lecture, On-Line

Leadership (Online) (LDSX)

LDSX 315: Women in Leadership**Credits:** 3**College:** School of Business**Schedule Type:** On-Line**LDSX 361: Leadership Theory & Practice**

This course provides a thorough review of the history of leadership theory and application, and culminates with an emphasis on transformational and visionary leadership. Ethical leadership also is covered in depth. Prerequisite: CLC 350 or CLCX 350 is recommended but not required.

Credits: 3**College:** School of Business**Schedule Type:** On-Line**LDSX 365: Behavioral Dynamics in Orgs**

This course moves progressively through individual, group, and organizational levels of behavior drawing on concepts and practices from the field of Organizational Behavior (OB). It also examines the interrelationship of behavioral phenomena among these levels. Studying OB provides a basic understanding of one's own and others' behavior, particularly in teams. It enhances students' ability to communicate and work effectively with others. This course will help students strengthen their people management skills so they can be successful leaders in any field they choose. Prerequisite: LDSP 361 or LDSX 361 recommended but not required.

Credits: 3**College:** School of Business**Schedule Type:** On-Line**LDSX 368: Org. Theory & Development**

Students draw on their experiences in previous organizational leadership courses, employing key concepts, theories and skills learned throughout the program toward the strategic analysis of organizations. Using Bolman and Deal's organizational frames concept, students synthesize key learnings across their education and explore an organization through four unique perspectives.

Credits: 3**College:** School of Business**Schedule Type:** By Appointment - 2 students, On-Line**LDSX 375: Leadership Development**

This course presents leadership formation and development from a lifespan developmental perspective. Students will examine how family, school, work settings, and other environmental factors have helped and/or will help develop their transformational leadership potential and leadership effectiveness. Students will develop as authentic leaders by completing various free self-assessments designed to raise awareness of their strengths and opportunities for growth as leaders.

Credits: 3**College:** School of Business**Schedule Type:** By Appointment - 2 students, On-Line**LDSX 498: Org. Leadership Capstone**

This course serves as a capstone course in the Organizational Leadership program. Students complete the SCPS Portfolio they have been assembling throughout their program. The portfolio provides students with an opportunity to look at the past, present, and future. Students reflect on personal growth and development during their program of study. Students also demonstrate ability to integrate knowledge and skills acquired throughout the programs by completing an integrative paper that addresses leadership, ethics, organizational analysis, self-leadership, diversity, reflections, and an action plan. The portfolio concludes with a professional development plan wherein students identify goals for continued professional growth and lifelong learning.

Credits: 3**College:** School of Business**Prerequisites:** (LDSP 361 or LDSX 361) and (LDSP 365 or LDSX 365) and (LDSP 368 or LDSX 368) and (LDSP 375 or LDSX 375) and (PHIL 222 or PHILX 222) [Min Grade: D]**Schedule Type:** By Appointment - 1 student, On-Line

Legal Studies (Online) (LCSX)

LCSX 105: Elements of Organization

Students need a basic understanding of how organizations work in order to manage their personal and professional lives. This course provides an interdisciplinary perspective on the foundations underlying all organizations (businesses, non-profit and governmental organizations) specifically as they relate to the nature of: management and leadership, economics both domestically and internationally, ethics, social responsibility, entrepreneurship, human resource management, marketing/advertising, e-commerce, information technology, accounting, investments, money and personal finances.

Credits: 3**College:** School of Business**Schedule Type:** By Appointment - 4 students, On-Line

Literature (LIT)

LIT 310: Caste and Class in Literature**Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture

Management (MGMT)

MGMT 3XX: Management Elective**Credits:** 3**College:** School of Business**Schedule Type:** Lecture

MGMT 102: Human Resource Management

Credits: 3

College: School of Business

Schedule Type: By Appointment - 1 student, Independent Study, Lecture, On-Line

MGMT 103: Elements of Organization

Credits: 3

College: School of Business

Schedule Type: Lecture, On-Line

MGMT 104: Management Foundations

Designed for majors in C-DEC, this course enables students to understand the role of managers in diverse, global, and competitive organizations, and within the context of 21st Century management theory. Topics include decision-making, motivation, leadership, human resources, ethics and social responsibility, and management in a global environment. Students will explore these topics through assignments and exercises designed to enhance their managerial skills.

Credits: 1.5

College: School of Business

Schedule Type: By Appointment, Lecture

MGMT 105: Principles of Management

Credits: 3

College: School of Business

Schedule Type: By Appointment - 1 student, Lecture, On-Line

MGMT 111: Essentials of Entrepreneurshi

This course will give students a realistic look at the demands of starting a viable business and help students evaluate their own skills, talents, and potential role in the entrepreneurial eco system. Concepts highlighted in this course include: networking, building the right team, legal business structures, venture funding options, and planning for growth. Prerequisites: MKTG-102 or MKTG-104, MGMT-301 or MGMT-104

Credits: 3

College: School of Business

Schedule Type: Lecture

MGMT 201: Principles of Marketing

Credits: 3

College: School of Business

Schedule Type: Independent Study, Lecture, Lecture/On-Line, On-Line

MGMT 212: Principles of Management

Covers the managerial functions of planning, organizing, leading, and controlling within the framework of a rapidly changing and increasingly diverse global community. Presents a mix of knowledge, skills and abilities needed for managers to succeed in today's complex work environment in four domains: professional effectiveness, relationship management, business acumen, and analytical intelligence.

Credits: 3

College: School of Business

Schedule Type: By Appointment - 1 student, Lecture, On-Line

MGMT 301: Principles of Management

Effective management is fundamental for the successful operation of all types of enterprises. The course will present the principles, techniques and concepts needed for managerial analysis and decision making. Functions highlighted include planning, organizing, staffing and controlling.

Credits: 3

College: School of Business

Schedule Type: Lecture

MGMT 303: Labor/Management Relations

Credits: 3

College: School of Business

Schedule Type: Lecture, On-Line

MGMT 304: Mngmnt & Org Theory in HSOs

Credits: 3

College: School of Business

Schedule Type: Independent Study, Lecture, Lecture/On-Line, On-Line

MGMT 305: Managing a Diverse Workplace

Credits: 3

College: School of Business

Schedule Type: Lecture, On-Line

MGMT 306: Legal Aspects of Human Res Mgt

Credits: 3

College: School of Business

Prerequisites: MGMT 102 and MGMT 304

Schedule Type: Independent Study, Lecture, On-Line

MGMT 307: International Management

Introduces students to the special aspects of managing a company in the global environment. Issues involved in understanding and applying the international and cross-cultural dimensions of the traditional management functions, such as organization, control, motivation, human resources and labor relations; and organization theory are studied. Lectures, readings, exercises and cases will be used.

Credits: 3

College: School of Business

Prerequisites: MGMT 301 or MGMT 104 [Min Grade: D]

Schedule Type: Lecture, On-Line

MGMT 307AC: Compensation & Benefits

This course focuses on the strategic choices in managing compensation. Major compensation issues are discussed in the context of current theory, research, and practice. Students will explore the issues that influence the determination of compensation and benefits in an organization, the design of the various forms of compensation and benefits, and how organizations manage the compensation system.

Credits: 3

College: School of Business

Prerequisites: MGMT 201 [Min Grade: D]

Schedule Type: Lecture, On-Line

MGMT 309: Systems Analysis

This course introduces the structured approach to design of new applications software, software systems, networks, and/or World Wide Web installations. It deals with the usual life cycle for such operations. Analysis includes approaches to specifying input and output, file structures, trade-off techniques, implementation, documentation and testing. Other approaches such as rapid application development and object-oriented analysis are discussed.

Credits: 3

College: School of Business

Prerequisites: MIS 202 [Min Grade: D]

Schedule Type: Lecture

MGMT 310: People & Teams in Organizatns

The course includes an in-depth exploration of topics such as communication, group dynamics, group roles, team building, power and politics, leadership, and negotiation and conflict resolution. In addition, issues of organizational culture and diversity are examined. Through readings, discussions, class activities and projects, students learn how to be effective organizational communicators, team members and leaders. Students also gain an understanding of culture and diversity issues, and how to effectively manage them.

Credits: 3**College:** School of Business**Prerequisites:** MGMT 301 or MGMT 104 [Min Grade: D]**Schedule Type:** Lecture**MGMT 311: Colloquium in Management****Credits:** 3**College:** School of Business**Schedule Type:** Lecture**MGMT 315: Communiation & Negotiation**

This is a course in organizational politics ? power, influence, conflict and conflict management. It has two goals: first, to develop students? skills in recognizing politics and conflict situations; and second, to teach students to use negotiating to achieve personal organizational goals. Through readings, discussion and role-plays, a wide range of conflict and negotiating contexts will be considered. These include situations in interpersonal, interorganizational and union-management relationships.

Credits: 3**College:** School of Business**Prerequisites:** MGMT 104 or MGMT 301 [Min Grade: D]**Schedule Type:** Lecture**MGMT 320: Human Resources Prac & Tools**

This course surveys the roles, policies and procedures of human resource management (HRM) in organizations today. Students learn the steps to staff and motivate a workforce, and appreciate the role of quantitative and qualitative decision making in HRM. Course materials deal with environmental impacts on HRM, equal employment opportunity, human resource planning, selection, performance evaluation, wage and salary administration, training and other relevant topics.

Credits: 3**College:** School of Business**Prerequisites:** MGMT 301 or MGMT 104 [Min Grade: D]**Schedule Type:** Lecture**MGMT 320AC: Human Resource Pract & Tools****Credits:** 3**College:** School of Business**Schedule Type:** Lecture**MGMT 321: Operations Management**

This course is a comprehensive survey of production and service operations management, topics and functions. Topics include methods and work measurement, materials management, plant location and layout, production planning and control, maintenance, quality control, "Total Quality," Japanese management styles, "Systems Approach," and decision tools such as PERT, linear programming, queuing theory, sampling and simulation. Service-delivery applications and activities are also highlighted.

Credits: 3**College:** School of Business**Schedule Type:** By Appointment - 1 student, Independent Study, Lecture, On-Line**MGMT 322: Business Analytics & Vis.**

Covers descriptive analytics, predictive analytics, and prescriptive analytics, as well as big data concepts and tools. Presents data visualization as an essential complement to business analytics that greatly facilitates managerial understanding and decision-making. The course emphasizes practical challenges involving complex, real-world data and includes several case studies and hands-on exercises with data analysis and visualization software.

Credits: 3**College:** School of Business**Prerequisites:** STAT 211 or STAX 211 or STAT 311 or STAX 311 or MATH 350 [Min Grade: D]**Schedule Type:** Lecture, On-Line**MGMT 330: Organizational Ethics****Credits:** 3**College:** School of Business**Schedule Type:** Lecture**MGMT 350: Prof Leadership & Career Mgmt****Credits:** 3**College:** School of Business**Schedule Type:** Lecture/On-Line**MGMT 361: Leadership Theory & Eth Pract**

This course will heighten awareness and broden the participant's knowledge of leadership theory, trends and applications, with a strong focus on ethical leadership. The course encompasses leadership/ management theories, techniques, organizational applications, managing ethical gray areas with intergrity, and intergrating leadership skills into daily work practices. Students will review organizational structure/functions, leadership styles, managerial processes, strategic planning, and change-oriented ethical leadership and consider the impact of public policy.

Credits: 3**College:** School of Business**Schedule Type:** By Appointment - 1 student, By Appointment - 4 students, Lecture, On-Line**MGMT 361AC: Leadership Theory & Eth Pract****Credits:** 3**College:** School of Business**Schedule Type:** Lecture, On-Line**MGMT 381: Independent Study in Mgmt****Credits:** 3**College:** School of Business**Schedule Type:** Independent Study**MGMT 398: Transfer Management****Credits:** 3**College:** School of Business**Schedule Type:** Lecture

MGMT 401: Operations Management

This course is a comprehensive survey of production and service operations management, topics and functions. Topics include methods and work measurement, materials management, plant location and layout, production planning and control, maintenance, quality control, "Total Quality," Japanese management styles, "Systems Approach;" and decision tools such as PERT, linear programming, queuing theory, sampling and simulation. Service-delivery applications and activities are also highlighted.

Credits: 3

College: School of Business

Prerequisites: (STAT 201 or ABA 201) and (MGMT 104 or MGMT 301) [Min Grade: D]

Schedule Type: By Appointment - 4 students, Lecture, On-Line

MGMT 401AC: Operations Management

Credits: 3

College: School of Business

Prerequisites: STAT 311 [Min Grade: D]

Schedule Type: By Appointment - 2 students, By Appointment - 3 students, By Appointment - 4 students, Lecture, On-Line

MGMT 405: Aprl/Textile Supply Chain Mgmt

This course will bring into sharp focus the global relationship that exists between all of the elements of the textile-apparel-retail supply chain. Areas covered: traditional management functions of control over timeliness of production, and quality and labor relations in the global marketplace.

Credits: 4

College: Kanbar College of Design, Engineering & Commerce

Prerequisites: FASM 401 [Min Grade: D]

Schedule Type: Lab, Lecture, Lecture/Lab, On-Line

MGMT 406: Organizational Behavior

Credits: 3

College: School of Business

Schedule Type: Lecture, On-Line

MGMT 407: Financial Management of HSOs

Credits: 3

College: School of Business

Prerequisites: ACCT 102 and ECON 202 and FIN 101 and MGMT 304 and MATH 301

Schedule Type: Lecture, On-Line

MGMT 408: Program Plan & Eval in HSOs

Credits: 3

College: School of Business

Prerequisites: HCA 300 and MGMT 304 and MGMT 407

Schedule Type: Lecture, Lecture/On-Line, On-Line

MGMT 410: Leadership & Strategy:Ad Semin

Credits: 3

College: School of Business

Prerequisites: HCA 351 and HCA 303 and ECON 401 or HCA 401 and HMIS 310 and MGMT 102 and MGMT 304 and MGMT 407 and MGMT 408 and MGMT 411 and PHIL 301

Schedule Type: Lecture, Lecture/On-Line, On-Line

MGMT 411: Internship

From opportunity finding to launch, this course provides students the opportunity to apply concepts that cover all major elements of entrepreneurship in the role of the venture creator. Concepts used in the exploration of a venture opportunity include: customer identification and development, business model development and testing, proof of concept evaluation, and pursuing appropriate funding opportunities.

Credits: 3

College: School of Business

Prerequisites: MGMT 111 [Min Grade: D]

Schedule Type: Lecture

MGMT 412: Current Management Topics

This course is designed for senior management majors, and integrates and extends concepts learned in other upper-level management courses. The dynamic nature of management is emphasized through reading, analyzing and discussing recent literature in terms of the current business environment. Students examine topics including 21st-century career management; the role of education and technology in organizations; and future trends in management and organizations. The course includes individual and group readings, cases, and research projects that are presented as written and oral assignments.

Credits: 3

College: School of Business

Prerequisites: MGMT 310 and (MGMT 301 or MGMT 104) [Min Grade: D]

Schedule Type: By Appointment, Lecture

MGMT 418: Organizational Theory & Dev.

This course examines the nature and problems of organizational design, development, and change in complex organizations. The application of organizational theories in the treatment of technological, economic, and behavioral problems confronted by the practicing manager is examined. Theories of organizational growth, change, and development and their impact on organizational outcomes are explored.

Credits: 3

College: School of Business

Prerequisites: MGMT 105 [Min Grade: D]

Schedule Type: By Appointment - 1 student, Lecture, On-Line

MGMT 460: Supervision

Credits: 3

College: School of Business

Schedule Type: Lecture, On-Line

MGMT 490: Business Policy and Strategy

Credits: 3

College: School of Business

Schedule Type: Lecture

MGMT 490N: Business Policy and Strategy

Credits: 6

College: School of Business

Schedule Type: Lecture

MGMT 491: Text,Retail&AppBusPolicy&Strat

Credits: 3

College: School of Business

Schedule Type: Lecture

MGMT 491N: Text,Retail&AppBusPolicy&Strat

Credits: 6

College: School of Business

Schedule Type: Lecture

MGMT 498: Business Capstone I

WRITING INTENSIVE. In this course, students evaluate relevant professional, ethical, and social responsibilities of individuals and organizations. The definitions and roles of sustainable practices, social enterprise, and social entrepreneurship in organizations are explored, and students apply these concepts to real-world business opportunities. An individual writing-intensive assignment ties the course to students' areas of specialization. The course also includes a critical review of the functional areas of business.

Credits: 3**College:** School of Business**Schedule Type:** Lecture**MGMT 498N: Bus Capstone: Strategy Sim**

In this course, students will be introduced to the fundamentals of business strategy and strategic decision-making. Students will demonstrate their functional knowledge of core business areas including: accounting and finance, management, and marketing, as well as product development and operations. The process and techniques of strategy formulation, implementation and evaluation are studied and applied as student teams operate competing companies in a computer-simulated business environment. This course builds on themes from the DEC Core.

Credits: 3**College:** School of Business**Schedule Type:** Lecture**MGMT 499: Business Capstone II**

The process and techniques of strategy formulation, implementation and evaluation are studied and applied using real-world domestic, international, and not-for-profit company examples. This course builds on themes from the DEC core as they apply to the capstone experience. [Writing Intensive]

Credits: 3**College:** School of Business**Schedule Type:** Lecture

Management (Online) (MGTX)

MGTX 105: Principles of Management

This course is an introduction to the principles of management and their application in public and private, profit and non-profit organizations. Students will explore the areas of employee motivation, group behavior, leadership, strategic planning, organizational design, and career opportunities. Emphasis is on the research and techniques available to assist in the development of requisite management skills.

Credits: 3**College:** School of Business**Schedule Type:** By Appointment - 2 students, By Appointment - 3 students, On-Line**MGTX 201: Human Resources Mgmt.**

This course includes the presentation, analysis, and discussion of the specific functions of an organization's Human Resources Department, including the human relations knowledge and skills vital to the success of any manager. Students will explore the standards of performance that are expected of managers, subordinates, and the organization with a special emphasis on the supportive relationship needed between employees and their organizations. This course also will explore a number of contemporary and controversial issues related to human resource management.

Credits: 3**College:** School of Business**Schedule Type:** By Appointment - 2 students, By Appointment - 3 students, By Appointment - 4 students, On-Line**MGTX 212: Principles of Management**

Covers the managerial functions of planning, organizing, leading, and controlling within the framework of a rapidly changing and increasingly diverse global community. Presents a mix of knowledge, skills and abilities needed for managers to succeed in today's complex work environment in four domains: professional effectiveness, relationship management, business acumen, and analytical intelligence.

Credits: 3**College:** School of Business**Schedule Type:** By Appointment - 3 students, On-Line**MGTX 303: Labor/Management Relations**

This course is an introduction to labor/ management relations. It acquaints students with current problems encountered by management in the negotiation and administration of labor relation agreements.

Credits: 3**College:** School of Business**Prerequisites:** MGTX 201 [Min Grade: D]**Schedule Type:** By Appointment - 1 student, On-Line**MGTX 305: Managing a Diverse Workplace**

This course focuses on a variety of topics related to meeting the demands of an increasingly diverse workplace. Students will explore the difference among Affirmative Action, valuing diversity, and managing diversity. Characteristics of diverse populations, including ethnic minorities, gender issues, older workers, workers with disabilities, and foreign workers will be studied. Students will learn strategies for implementing diversity and building cooperation and trust among diverse work groups.

Credits: 3**College:** School of Business**Schedule Type:** By Appointment - 4 students, On-Line**MGTX 307: Compensation & Benefits**

This course focuses on the strategic choices in managing compensation. Major compensation issues are discussed in the context of current theory, research, and practice. Students will explore the issues that influence the determination of compensation and benefits in an organization, the design of the various forms of compensation and benefits, and how organizations manage the compensation system.

Credits: 3**College:** School of Business**Prerequisites:** MGTX 201 [Min Grade: D]**Schedule Type:** By Appointment - 2 students, On-Line

MGTX 308: Training and Development

This course focuses on the role of training and employee development in organizations. It acquaints students with current theory on learning and program design, training methods and evaluation, e-learning and the use of technology in training, and the relationship of training to career management.

Credits: 3

College: School of Business

Prerequisites: MGTX 201 [Min Grade: D]

Schedule Type: By Appointment - 3 students, On-Line

MGTX 321: Operations Management

This course is a comprehensive survey of production and service operations management, topics and functions. Topics include methods and work measurement, materials management, plant location and layout, production planning and control, maintenance, quality control, "Total Quality," Japanese management styles, "Systems Approach," and decision tools such as PERT, linear programming, queuing theory, sampling and simulation. Service-delivery applications and activities are also highlighted.

Credits: 3

College: School of Business

Schedule Type: By Appointment - 3 students, On-Line

MGTX 322: Business Analytics & Vis.

Covers descriptive analytics, predictive analytics, and prescriptive analytics, as well as big data concepts and tools. Presents data visualization as an essential complement to business analytics that greatly facilitates managerial understanding and decision-making. The course emphasizes practical challenges involving complex, real-world data and includes several case studies and hands-on exercises with data analysis and visualization software.

Credits: 3

College: School of Business

Prerequisites: STAT 211 or STAX 211 or STAT 311 or STAX 311 or MATH 350 [Min Grade: D]

Schedule Type: On-Line

MGTX 361: Leadership Theory & Eth Pract

Credits: 3

College: School of Business

Schedule Type: By Appointment - 1 student, By Appointment - 3 students, On-Line

MGTX 401: Operations Management

Credits: 3

College: School of Business

Schedule Type: On-Line

MGTX 405: Organizational Behavior

This course includes the study of individual and small group behavior in organizations and the interpretation of this behavior in the context of the managerial environment. Students will explore the nature of such concepts as influence, power and control, attitudes, communication, conflict, and interpersonal relations as a means of understanding of the dynamics of group behavior.

Credits: 3

College: School of Business

Prerequisites: MGTX 105 [Min Grade: D]

Schedule Type: By Appointment - 3 students, By Appointment - 4 students, On-Line

MGTX 408: Organizational Theory & Dev.

This course examines the nature and problems of organizational design, development, and change in complex organizations. The application of organizational theories in the treatment of technological, economic, and behavioral problems confronted by the practicing manager is examined. Theories of organizational growth, change, and development and their impact on organizational outcomes are explored.

Credits: 3

College: School of Business

Prerequisites: MGTX 105 [Min Grade: D]

Schedule Type: By Appointment - 1 student, By Appointment - 2 students, By Appointment - 3 students, On-Line

Management Of Info Systems (MIS)

MIS 202: Management Information Systems

This course is designed for future managerial end users of e-business information systems who will both use and manage information technology (IT). The course addresses the strategic, tactical and operational uses of IT in business for problem solving and identifies and explains MIS applications including customer relationship management systems, enterprise systems, e-commerce applications, transaction processing systems, business analytics, and emerging technologies. Computer assignments complement the topics discussed in class.

Credits: 3

College: School of Business

Prerequisites: STAT 201 or ABA 201 [Min Grade: D]

Schedule Type: By Appointment - 1 student, Lecture

MIS 211: Management Information Systems

Introduces management of information systems, a core business function. Examines how information systems (information technology, people, and processes) can be used to achieve corporate objectives. Utilizes current business cases to illustrate how companies have identified and solved key business challenges using information systems and technologies. Prerequisite: None required; MGMT 212 or MGTX 212 recommended

Credits: 3

College: School of Business

Schedule Type: By Appointment - 1 student, Lecture, On-Line

MIS 305: Database Analysis, Design&Mgmt

Credits: 3

College: School of Business

Prerequisites: MIS 207 or MIS 202 [Min Grade: D]

Schedule Type: By Appointment, Lecture

Marketing (MKTG)

MKTG 102: Principles of Marketing

Principles of Marketing A basic course in which the main functions, institutions and concepts of marketing are studied. Attention is focused on providing an analytical and corporate framework for studying and understanding the marketing system within changing environmental forces.

Credits: 3

College: School of Business

Schedule Type: Lecture, On-Line

MKTG 102AC: Principles of Marketing**Credits:** 3**College:** School of Business**Schedule Type:** By Appointment - 3 students, By Appointment - 4 students, Lecture, On-Line**MKTG 104: Marketing Foundations****Credits:** 1.5**College:** School of Business**Schedule Type:** Lecture**MKTG 115: Fashion Merchandising****Credits:** 3**College:** School of Business**Schedule Type:** Lecture**MKTG 207: Consumer in the Market Place**

Consumer Behavior This course provides comprehensive understanding of the many dimensions of consumer behavior and the contributions of behavioral science to this discipline. The focus will be on understanding consumer needs.

Credits: 3**College:** School of Business**Prerequisites:** MKTG 102 or MKTG 104 [Min Grade: D]**Schedule Type:** Lecture**MKTG 211: Principles of Marketing****Credits:** 3**College:** School of Business**Schedule Type:** Lecture, On-Line**MKTG 217: Retailing Strategy & Structure**

Retailing Strategy and Structure A comprehensive understanding of retail strategy in the dynamic retailing environment. Special attention is given to retailing structure since it underlies the strategic decision making of retailing management.

Credits: 3**College:** School of Business**Prerequisites:** MKTG 102 or MKTG 104 [Min Grade: D]**Schedule Type:** By Appointment - 1 student, Lecture**MKTG 300: Sports Marketing**

This course will examine the complex and diverse nature of sports marketing. Specific emphasis will be placed on the contingency framework for sports marketing, with attention to market selection, marketing mix decisions, and the implementation and control of the sports marketing process. Additionally the course will examine the marketing through sports, using sports as a platform for developing strategies and tactics to sell non-sports products. Pre-requisites: BUS 200 (Introduction to Sports Business).

Credits: 3**College:** School of Business**Prerequisites:** BUS 200 [Min Grade: D]**Schedule Type:** Hybrid, Lecture, On-Line**MKTG 302: Prod Devp & Innovation**

Product Development and Innovation This course is designed to expose students to the concept of innovation and an understanding of the process of product/ service development and innovative marketing. Students learn how a product is conceptualized and ultimately commercialized. They will understand the factors that play a central role in the process.

Credits: 3**College:** School of Business**Prerequisites:** MKTG 102 or MKTG 104 [Min Grade: D]**Schedule Type:** Lecture**MKTG 305: Contemporary Brand Mgmt.**

In this course students will learn the terminology, concepts and activities of brand management, including gaining an understanding of the brand equity concept, including steps that can be taken to create and grow the brand's value, identifying & establishing the brand values & positioning, planning & implementing brand marketing programs, measuring & interpreting brand performance, and continuing to grow & sustain brand equity over the long-term.

Credits: 3**College:** School of Business**Prerequisites:** MKTG 102 or MKTG 104 [Min Grade: D]**Schedule Type:** Lecture**MKTG 307AC: Principles Social Media Mktg.****Credits:** 3**College:** School of Business**Schedule Type:** Lecture**MKTG 310: Integrated Mktg Communication**

Integrated Marketing Communication This course examines the vital role of marketing communications in the development of marketing strategy. Integrated marketing communications (IMC) is emphasized as students explore the use of advertising, personal selling, sales promotions, Internet marketing, database marketing, public relations, etc., to enhance brand equity. The strategy and planning involved in the development of integrated campaigns is emphasized.

Credits: 3**College:** School of Business**Prerequisites:** MKTG 102 or MKTG 104 [Min Grade: D]**Schedule Type:** Lecture**MKTG 315: Mktg in a Digital Environment**

Marketing in a Digital Environment This course investigates the ways in which new technologies are changing the field of marketing. Major topics include Internet advertising, database marketing, sales-force automation and customer relationship-management software tools. Other topics include the impact of new technologies on distribution strategies, online pricing models, mass-customization strategies, data mining and media implications.

Credits: 3**College:** School of Business**Prerequisites:** MKTG 102 or MKTG 104 [Min Grade: D]**Schedule Type:** By Appointment - 1 student, Lecture**MKTG 318: Sales Management****Credits:** 3**College:** School of Business**Prerequisites:** MKTG 102 or MKTG 104 [Min Grade: D]**Schedule Type:** Lecture**MKTG 320: Visual Literacy**

A survey course in which students will examine, appreciate and communicate with visual media. Students will enhance their capacity to look at a design and evaluate what is effective, with an understanding of design language and the process by which good communication is created.

Credits: 3**College:** School of Business**Schedule Type:** By Appointment - 3 students, By Appointment - 4 students, Lecture

MKTG 324: International Marketing

This course applies fundamental marketing concepts in a global context. We will study marketing practices used by businesses to adapt to the international environment and how to scan the globe for opportunities in other countries. The impact of technological advances, monitoring the changing business environment, and developing effective global marketing strategies is also presented.

Credits: 3

College: School of Business

Prerequisites: MKTG 102 or MKTG 104 [Min Grade: D]

Schedule Type: Lecture, On-Line

MKTG 328: Merchandise Buying/Operations

Merchandise Buying/Operations The course provides the student with the understanding of the interdependence of the merchandising and operations functions. Students have a comprehensive understanding of the retail business from gross sales to net profit. To achieve this understanding, students are required to prepare a merchandising/operations plan that integrates all of the elements of doing business in the retail environment.

Credits: 3

College: School of Business

Prerequisites: MKTG 217 [Min Grade: D]

Schedule Type: Lecture

MKTG 381: Independent Study in Marketing

Credits: 3

College: School of Business

Prerequisites: MKTG 102 or MKTG 104 [Min Grade: D]

Schedule Type: Independent Study

MKTG 391: Marketing Research

Marketing Research Exposure to marketing-research techniques and procedures used in gathering, recording, analyzing and reporting of data related to marketing problems.

Credits: 3

College: School of Business

Prerequisites: MKTG 207 and (STAT 202 or ABA 202) [Min Grade: D]

Schedule Type: Lecture

MKTG 404: Consumer Behavior

Credits: 3

College: School of Business

Prerequisites: MKTX 101 or MKTG 102 [Min Grade: D]

Schedule Type: Lecture, On-Line

MKTG 408: E-Business Strategy

Survey of E-Commerce This is an introductory course in which the size, scope and impact of e-commerce is explored. This course includes discussions about how technology impacts business processes and transactions. A significant part of the course will discuss the e-business technology platform. Additional topics include business-to-business market exchanges, online auctions, electronic-payment systems, market valuation of e-commerce firms, and government policies and issues concerning e-commerce such as privacy, regulations and ethics.

Credits: 3

College: School of Business

Prerequisites: MKTG 102 or MKTG 104 [Min Grade: D]

Schedule Type: Lecture

MKTG 412: Marketing Strategy Seminar

Marketing Strategy Seminar Skills will be developed for making better decisions by learning to integrate various topics of marketing. The importance and know-how of anticipating, recognizing and adapting to external forces on the decision-making process and organization will be discussed. Emphasis will be placed on incorporating the most recent literature, which is of theoretical and practical importance, in the decision-making process. The course is built around readings, marketing cases, research papers and problem sets. A comprehensive marketing plan will be developed.

Credits: 3

College: School of Business

Prerequisites: MKTG 391 [Min Grade: D]

Schedule Type: Lecture

Marketing (Online) (MKTX)

MKTX 101: Principles of Marketing

Credits: 3

College: School of Business

Schedule Type: On-Line

MKTX 102: Principles of Marketing

Credits: 3

College: School of Business

Schedule Type: On-Line

MKTX 211: Principles of Marketing

Credits: 3

College: School of Business

Schedule Type: On-Line

MKTX 404: Consumer Behavior

This course examines marketing from the point of view of key behavioral science concepts, relevant consumer research, best practices and practical marketing applications with a customer focus. The course also analyzes motivation, personality, perception, learning, attitude formation, and the importance of group dynamics, social class, and culture on behavior in the marketplace.

Credits: 3

College: School of Business

Prerequisites: MKTX 101 or MKTG 102 [Min Grade: D]

Schedule Type: By Appointment - 1 student, By Appointment - 2 students, By Appointment - 3 students, On-Line

Math (Online) (MATX)

MATX 120: College Algebra

This course provides a review of the fundamentals of algebra: a study of function theory, specifically linear and quadratic functions; matrix operations; and linear programming. Emphasis is placed on problem-solving techniques with special attention given to business and other applications.

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: On-Line

Mathematics (MATH)

MATH 1XX: Mathematics Placeholder

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

MATH 2XX: Mathematics Placeholder**Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**MATH 100: College Algebra**

While the content of MATH-100 is identical to that of MATH-101, more time is devoted during the semester to the review and use of elementary mathematical operations. See MATH-101 for content.

Credits: 3**College:** Jefferson College of Humanities & Sciences

Prerequisites: MATH 099 or Math Placement (Non-Science) with a score of 5 or Math Placement (Science) with a score of 6 [Min Grade: D]

Schedule Type: Lecture, On-Line**MATH 101: College Algebra**

MATH-101 is a concentrated study of the topics traditionally found in College Algebra. Topics of study include algebraic equations and inequalities, absolute value, polynomial, rational, exponential and logarithmic functions, systems of equations and inequalities, matrices and determinants. Emphasis is placed on applications in business and economics. Additional topics may include conic sections, sequences and series, combinatorics, probability, modeling with functions, and mathematical induction.

Credits: 3**College:** Jefferson College of Humanities & Sciences

Prerequisites: Math Placement (Non-Science) with a score of 10 or MATH 099 [Min Grade: D]

Schedule Type: Lecture, On-Line**MATH 102: Pre-Calculus**

The fundamentals of college algebra, analytic geometry and trigonometry will be covered, with particular emphasis on those topics necessary for the calculus sequence.

Credits: 3**College:** Jefferson College of Humanities & Sciences

Prerequisites: MATH 100 or MATH 101 or Math Placement (Non-Science) with a score of 10 [Min Grade: D]

Schedule Type: Lecture, On-Line**MATH 103: Applied Calculus**

An introduction to the differential and integral calculus of polynomials, rational functions, exponentials and logarithms. Emphasis is placed on the use of calculus in the study of rate of change, determination of extrema and area under the curve.

Credits: 3**College:** Jefferson College of Humanities & Sciences

Prerequisites: MATH 102 or Math Placement (Non-Science) with a score of 15 [Min Grade: D]

Schedule Type: Lecture, On-Line**MATH 104: Analytical Geometry****Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**MATH 110: Pre-Calculus for Sci & Engrs**

The fundamentals of college algebra, analytic geometry and trigonometry will be covered, with particular emphasis on those topics necessary for the calculus sequence.

Credits: 4**College:** Jefferson College of Humanities & Sciences

Prerequisites: MATH 100 or MATH 101 or Math Placement (Science) with a score of 10 or MATH 102 [Min Grade: D]

Schedule Type: Lecture, On-Line**MATH 111: Calculus I**

Functions, slope and rate of change, limits, derivations of algebraic functions, maxima and minima applications, indefinite integration, integration by substitution, sigma notation, area between two curves. Knowledge of algebra, geometry and trigonometric functions is assumed.

Credits: 4**College:** Jefferson College of Humanities & Sciences

Prerequisites: MATH 110 or Math Placement (Science) with a score of 14 [Min Grade: D]

Schedule Type: Lecture, On-Line**MATH 112: Calculus II**

Differentiation and integration of transcendental functions. Theory and methods of integration and applications. Infinite series, convergent tests, Maclaurin and Taylor series. Convergence of Taylor series.

Credits: 4**College:** Jefferson College of Humanities & Sciences

Prerequisites: MATH 111 [Min Grade: D]

Schedule Type: Lecture, On-Line**MATH 120: College Algebra****Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture, On-Line**MATH 152: College Algebra****Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture, Lecture/On-Line, On-Line**MATH 198: Mathematics I****Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**MATH 205: Theory of Computation****Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**MATH 213: Calculus III**

Study of analytic geometry in 3D-space; algebra of vectors, differentiation and integration of vectors; partial differentiation, multiple integrals; infinite series.

Credits: 4**College:** Jefferson College of Humanities & Sciences

Prerequisites: MATH 112 [Min Grade: D]

Schedule Type: By Appointment, Lecture**MATH 214: Linear Algebra****Credits:** 3**College:** Jefferson College of Humanities & Sciences

Prerequisites: MATH 112 [Min Grade: D]

Schedule Type: Lecture

MATH 215: College Algebra

Heavy emphasis will be placed on applications and mathematical modeling. Topics covered include those in a traditional College Algebra course. Students will gain knowledge and skills in problem solving and modeling using graphing calculators and computer software

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: By Appointment - 1 student, By Appointment - 3 students, By Appointment - 4 students, Lecture, On-Line

MATH 225: Differential Equations

First-order equations; constant-coefficient, nth-order homogeneous and non-homogeneous equations; special nonlinear equations; elementary applications; power series solutions. May also include elementary numerical techniques for solutions of ordinary differential equations and other computer topics.

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: MATH 112 [Min Grade: D]

Schedule Type: Lecture

MATH 301: Data Visualization

This course introduces techniques and methodologies for creating effective visualizations based on principles from graphic design, visual art, perceptual psychology, and cognitive science. Topics include: data and image models, color, graph layout, communication design, infographics, identification of "chart junk", matters of scientific integrity, and optimization of data-ink in multivariate data sets. Although there is no pre-requisite for this course, basic working knowledge of, or willingness to learn, data analysis tools (e.g., R, Excel, Matlab/Octave) will be useful.

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: MATH 101

Schedule Type: Lab, Lecture, Lecture/Lab, Lecture/On-Line, On-Line

MATH 316: Partial Differential Equations

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: MATH 225 [Min Grade: D]

Schedule Type: Lecture

MATH 317: Real Variables

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: MATH 225 [Min Grade: D]

Schedule Type: Lecture

MATH 318: Complex Variables

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: MATH 225 [Min Grade: D]

Schedule Type: Lecture

MATH 321: Probability and Statistics

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: MATH 112 [Min Grade: D]

Schedule Type: Lecture

MATH 323: Mathematical Statistics

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: MATH 321 [Min Grade: D]

Schedule Type: Lecture

MATH 326: Modern Algebra

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: MATH 214 [Min Grade: D]

Schedule Type: Lecture

MATH 331: Math Methods in Chem, Phys & Eng

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: MATH 112 [Min Grade: D]

Schedule Type: Lecture

Mechanical Engineering (MENG)

MENG 301: Machine Design

Kinematics and dynamics of machinery, including analytical kinematics, force analysis, cam design and balancing. Application of elementary mechanics of solids to analyze and size machine components for stress and deflection. Introduction to finite element analysis with emphasis on beam and plate models.

Credits: 3

College: School of Design & Engineering

Prerequisites: ENGR 218 and ENGR 301 [Min Grade: D]

Schedule Type: Lab, Lecture

MENG 325: Engineering Vibrations

Vibrations will be a thorough treatment of vibration theory and its engineering applications, from simple degree to multi degree-of-freedom system. Topics will include harmonic excitation, forced responses, multiple degree-of-freedom systems, design for vibration suppression, distributed parameter systems, vibration testing and experimental modal analysis, and finite element method.

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture

MENG 399: Mechanical Engin Design Sem

The purpose of the Mechanical Engineering Design Seminar is to support student success as Mechanical Engineering students prepare to move into their senior design experience. As a prerequisite for the Engineering senior design experience, the course is built around didactic and experiential educational components, pre-project research assignments, and independent research. Included in the course are elements that teach and reinforce the project proposal process, refine technical report writing skills, and promote lifelong learning and continuing professional development.

Credits: 0.5

College: School of Design & Engineering

Prerequisites: ENGR 311 and ENGR 301 [Min Grade: D]

Schedule Type: Lecture

MENG 405: Intro to Mechatronics

This course will prepare students in the interdisciplinary field of engineering that comprises the integration of mechanics, electronics and computer technology coordinated by control architecture. Emphasis on computer-integrated electromechanical systems will help the students to understand the design, analysis and practical approach of system integration.

Credits: 3

College: School of Design & Engineering

Prerequisites: ENGR 322 [Min Grade: D]

Schedule Type: Lab, Lecture

MENG 407: Thermodynamics

This course considers fundamental laws governing the transformation of heat into mechanical energy. Properties of gases and vapors and the processes between states are explored as are applications of the first and second laws of thermodynamics. A study of the transfer of heat by conduction, convection and radiation in steady and unsteady flow is also conducted.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** By Appointment, Lecture**MENG 427: System Dynamics and Controls**

Students will study modeling of physical systems including electromechanical systems; reduction of block diagrams; signal flow graphs and Mason's gain formula; response of second order systems: natural frequency and damping ratio and how they relate to rise-time, peak-time, settling-time, and overshoot; stability and the Routh-Hurwitz criterion; steady-state error and sensitivity; root locus; and Design of cascade compensators using root locus and frequency response.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture**MENG 428: Heat Transfer**

This course covers energy analysis; vapor and gas power cycles; vapor and gas refrigeration cycles; thermodynamic properties of mixtures and solutions; psychrometry and air-conditioning; reacting mixtures and combustion.

Credits: 3**College:** School of Design & Engineering**Prerequisites:** MENG 407 [Min Grade: D]**Schedule Type:** By Appointment, Lecture

Medical Assistant (MA)

MA 100: Intro to Medical Assisting**Credits:** 4**College:** Institute for Emerging Health Professions**Schedule Type:** Lecture, On-Line, Seminar**MA 101: Medical Terminology****Credits:** 4**College:** Institute for Emerging Health Professions**Schedule Type:** Lecture, Lecture/On-Line, Seminar**MA 102: Anatomy and Physiology****Credits:** 4**College:** Institute for Emerging Health Professions**Schedule Type:** Lecture, Lecture/Lab, On-Line, Seminar**MA 103: Medical Law and Ethics****Credits:** 3**College:** Institute for Emerging Health Professions**Schedule Type:** Lecture, Lecture/On-Line, Seminar**MA 104A: Clinical Procedures I****Credits:** 1.5,4**College:** Institute for Emerging Health Professions**Schedule Type:** Clinical, Lab, Lecture, Lecture/Lab, Seminar**MA 104B: Clinical Procedures II****Credits:** 4**College:** Institute for Emerging Health Professions**Schedule Type:** Clinical, Lab, Lecture, Lecture/Lab, Seminar**MA 105: Administrative Procedures****Credits:** 4**College:** Institute for Emerging Health Professions**Schedule Type:** Lecture, Lecture/On-Line, On-Line, Seminar**MA 106: Communication****Credits:** 4**College:** Institute for Emerging Health Professions**Schedule Type:** Exam, Lecture, Seminar**MA 107: Interpersonal Relations****Credits:** 3**College:** Institute for Emerging Health Professions**Schedule Type:** Lecture, Seminar**MA 110: Psychology for Med Assistants****Credits:** 4**College:** Institute for Emerging Health Professions**Schedule Type:** Lecture, Seminar**MA 112: Clinical Externship****Credits:** 8**College:** Institute for Emerging Health Professions**Schedule Type:** Clinical

Medical Coding (CODP)

CODP 100: Intro Health Info & Data Qual

This course includes the study of systems used to analyze, store, and/or retrieve health care data to support organizational operations, and clinical and business decision-making. A segment of the course will address the structure and use of registries, indices, and primary and secondary records. The course will teach the students the recordkeeping practices in the hospital and physician's office (paper, electronic computer-based). Emphasis is placed on hospital and medical staff organization, patient record content, procedures in filing, numbering and retention of patient records, quantitative analysis, release of patient information, forms control and design, reimbursement, regulatory and accrediting agencies, and alternate health care delivery systems. The course also addresses diversity in the workplace. The student will be guided on a journey of self-discovery, awareness and healing using real-life examples, practical tips, and exercises.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Lecture/On-Line, On-Line, Seminar**CODP 200: Structure of Human Body****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, On-Line**CODP 201: Human Disease and Treatment****Credits:** 3**College:** Jefferson College of Health Professions**Prerequisites:** (GNST 120 and CODP 200)**Schedule Type:** Lecture, On-Line**CODP 202: ICD-10 CM****Credits:** 3**College:** Jefferson College of Health Professions**Prerequisites:** CODP 100 and (CODP 201 or HSC 201 or HSCX 201) [Min Grade: D]**Schedule Type:** Lecture, Lecture/On-Line, On-Line

CODP 203: CPT Coding Concepts**Credits:** 3**College:** Jefferson College of Health Professions**Prerequisites:** CODP 100 and (CODP 201 or HSC 201 or HSCX 201) [Min Grade: D]**Schedule Type:** Lecture, Lecture/On-Line, On-Line**CODP 204: Applications of CPT Coding****Credits:** 3**College:** Jefferson College of Health Professions**Prerequisites:** (CODP 100 and CODP 201 and CODP 202 and CODP 203)**Schedule Type:** Lecture, Lecture/On-Line, On-Line**CODP 205: ICD-10 PCS**

This course introduces learners to the coding concepts utilized by the ICD-10-PCS coding system, to include the definitions of Root Operations, Approaches, Devices and the application of the Body Part Key. Learner's coding skills will be challenged with exercises and operative reports demonstrating the conventions and guidelines associated with ICD- 10- PCS.

Credits: 3**College:** Jefferson College of Health Professions**Prerequisites:** (CODP 100 and CODP 201 and CODP 202)**Schedule Type:** Lecture, Lecture/On-Line, On-Line**CODP 206: ICD-10 Principles/Applications**

This course builds on the ICD-10 coding skills learned in previous classes by utilizing actual patient medical records and coding scenarios. A review of the Present On Admission guidelines, as well as reimbursement concepts prevalent in the health care industry, such as DRGs, and APR- DRGs will also be included.

Credits: 1**College:** Jefferson College of Health Professions**Prerequisites:** (CODP 100 and CODP 200 and CODP 201 and CODP 204 and CODP 205) [Min Grade: D]**Schedule Type:** Lecture, Lecture/On-Line, On-Line**CODP 207: Reimbursement Methodology**

The primary focus of this course is to study the uses of coded data and health information in reimbursement and payment systems appropriate to all health care settings and managed care. The course explores complex coding areas that are difficult for coders. Clinical information regarding specific disease processes will be covered as well as diagnostic and procedural terminology. It builds upon previous knowledge of the basic principles and conventions of the ICD 10 and CPT coding system.

Credits: 3**College:** Jefferson College of Health Professions**Prerequisites:** CODP 201 and CODP 202 and CODP 203 and CODP 204 and CODP 205 [Min Grade: D]**Schedule Type:** By Appointment - 1 student, Lab, Lecture, Lecture/On-Line, On-Line**CODP 210: Coding Profess Practicum Exper**

During this practicum students will apply knowledge from the courses they have taken to a coding setting. Students will be expected to complete the directed practicum manual provided at the beginning of the semester. Faculty expects students to complete assignments on a timely basis and to conduct themselves in a manner appropriate to their assigned clinical site. This is a non-paid, non-working clinical affiliation. Students may be asked to complete assignments given by the clinical site periodically but may not be substituted for paid workers.

Credits: 3**College:** Jefferson College of Health Professions**Prerequisites:** (CODP 100 and CODP 206 and CODP 201 and CODP 202 and CODP 203 and CODP 204 and CODP 205 and CODP 207) [Min Grade: D]**Schedule Type:** Clinical, Exam, Lecture, On-Line, Practicum

Medical Lab Science (Online) (MLSO)

MLSO 301: Molecular Biology**Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture/On-Line, On-Line**MLSO 304: Biochemistry****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture/On-Line, On-Line**MLSO 310: Intro to Molecular Diagnostics****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Lecture/On-Line, On-Line**MLSO 312: Clinical Microbiology I**

Study the biology of clinically significant bacteria. Emphasizes pathophysiology and diagnostic procedures and tests used for their detection and identification. Topics of learning include, but not limited to, epidemiology, signs and symptoms of disease, mechanisms of infection and treatment. Contemporary laboratory methodologies used to examine, process and analyze clinical specimens are also discussed.

Credits: 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture/On-Line, On-Line**MLSO 313: Clinical Microbiology II**

Continuation of Clinical Microbiology I. Study the biology of clinically significant bacteria such as, but not limited to, obligate anaerobes, partially acid fast bacilli and mycobacteria. Parasitology, mycology and virology will also be studied. Emphasizes pathophysiology and diagnostic procedures and tests used for their detection and identification. Topics of learning include, but not limited to, epidemiology, signs and symptoms of disease, mechanisms of infection and treatment. Contemporary laboratory methodologies used to examine, process and analyze clinical specimens are also discussed.

Credits: 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture/On-Line, On-Line

MLSO 323: Clinical Chemistry I

Study of the significance of chemical analytes indicative of human health and disease. Topics of learning include, but not limited to, analytical methodologies, operating principles, and utilization of biochemical laboratory instrumentation, equipment and analyzers for analyte determinations; clinical and research. Chemical analytes that will be discussed throughout the duration of this course include, but not limited to, carbohydrates, electrolytes, proteins, enzymes, non-protein nitrogen compounds, lipids and blood gases. Quality control and preventative maintenance methods are also discussed.

Credits: 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture/On-Line, On-Line**MLSO 324: Clinical Chemistry II**

Continuation of Clinical Chemistry I. Topics of learning include, but not limited to, analytical methodologies, operating principles, and utilization of biochemical laboratory instrumentation, equipment and analyzers for analyte determinations; clinical and research. Emphasis on the study of organ function, endocrinology, heme derivatives, nutrition assessment, toxicology, therapeutic drug monitoring, tumor markers, specialized care and special chemistry and problem solving in the clinical chemistry laboratory.

Credits: 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture/On-Line, On-Line**MLSO 331: Immunology**

Examines basic principles and mechanisms of the immune system in the physiologic condition and in disease. Immune mechanisms in infections, hypersensitivity reactions, autoimmunity, immunodeficiencies, as well as tumor and transplantation immunology are discussed. Lecture. This is an online course.

Credits: 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture/On-Line, On-Line**MLSO 341: Clinical Hematology I****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture/On-Line, On-Line**MLSO 343: Clinical Hematology II****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture/On-Line, On-Line**MLSO 351: Immunohematology****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture/On-Line, On-Line**MLSO 352: Immunohematology II****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture/On-Line, On-Line**MLSO 375: MLS Seminar****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture/On-Line, On-Line, Practicum**MLSO 376: Urinalysis and Body Fluids****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture/On-Line, On-Line**MLSO 377: Lab Informatics Fundamentals****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture/On-Line, On-Line**MLSO 378: Infection Prevention & Control****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture/On-Line, On-Line**MLSO 379: Special Topics in MLS****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture/On-Line, On-Line**MLSO 403: Human Genetics****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture/On-Line, On-Line**MLSO 410: Molecular Diagnostic Technique****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture/On-Line, On-Line**MLSO 412: MLS Practicum I****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Practicum**MLSO 416: Comprehensive Exam****Credits:** 0**College:** Jefferson College of Health Professions**Schedule Type:** On-Line**MLSO 422: MLS Practicum II****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Practicum**MLSO 430: Laboratory Standard & Practice****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture/On-Line, On-Line**MLSO 440: Current Research Biosciences****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture/On-Line, On-Line**MLSO 442: MLS Practicum III****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Practicum**MLSO 454: MLS Practicum IV****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Practicum

Medical Laboratory Science (MLS)

MLS 300: Intro to Medical Lab Science**Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Lab, Lecture, Lecture/Lab, Lab/Lecture/Online, On-Line

MLS 312: Clinical Microbiology I

Study the biology of clinically significant bacteria. Emphasizes pathophysiology and diagnostic procedures and tests used for their detection and identification. Topics of learning include, but not limited to, epidemiology, signs and symptoms of disease, mechanisms of infection and treatment. Contemporary laboratory methodologies used to examine, process and analyze clinical specimens are also discussed.

Credits: 4

College: Jefferson College of Health Professions

Schedule Type: Lab, Lecture, Lecture/Lab, Lab/Lecture/Online, On-Line

MLS 313: Clinical Microbiology II

Continuation of Clinical Microbiology I. Study the biology of clinically significant bacteria such as, but not limited to, obligate anaerobes, partially acid fast bacilli and mycobacteria. Parasitology, mycology and virology will also be studied. Emphasizes pathophysiology and diagnostic procedures and tests used for their detection and identification. Topics of learning include, but not limited to, epidemiology, signs and symptoms of disease, mechanisms of infection and treatment. Contemporary laboratory methodologies used to examine, process and analyze clinical specimens are also discussed.

Credits: 3.5

College: Jefferson College of Health Professions

Schedule Type: Lab, Lecture, Lecture/Lab

MLS 323: Clinical Chemistry I

Study of the significance of chemical analytes indicative of human health and disease. Topics of learning include, but not limited to, analytical methodologies, operating principles, and utilization of biochemical laboratory instrumentation, equipment and analyzers for analyte determinations; clinical and research. Chemical analytes that will be discussed throughout the duration of this course include, but not limited to, carbohydrates, electrolytes, proteins, enzymes, non-protein nitrogen compounds, lipids and blood gases. Quality control and preventative maintenance methods are also discussed.

Credits: 3.5

College: Jefferson College of Health Professions

Schedule Type: Clinical, Lab, Lecture, Lecture/Lab, Lab/Lecture/Online, On-Line

MLS 324: Clinical Chemistry II

Continuation of Clinical Chemistry I. Topics of learning include, but not limited to, analytical methodologies, operating principles, and utilization of biochemical laboratory instrumentation, equipment and analyzers for analyte determinations; clinical and research. Emphasis on the study of organ function, endocrinology, heme derivatives, nutrition assessment, toxicology, therapeutic drug monitoring, tumor markers, specialized care and special chemistry and problem solving in the clinical chemistry laboratory.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Clinical, Lab, Lecture, Lecture/Lab

MLS 341: Clinical Hematology I

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Clinical, Lab, Lecture, Lecture/Lab, Lab/Lecture/Online, On-Line

MLS 343: Clinical Hematology II

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Clinical, Lab, Lecture, Lecture/Lab

MLS 351: Immunohematology I

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lab, Lecture, Lecture/Lab

MLS 352: Immunohematology

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lab, Lecture, Lecture/Lab

MLS 375: Medical Laboratory Science Sem

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture, Lecture/On-Line

MLS 376: Urinalysis and Body Fluids

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lab, Lecture, Lecture/Lab

MLS 412: Med Lab Sci Practicum I

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Clinical, Practicum

MLS 413: Clinical Hematology Seminar

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: On-Line

MLS 416: Comprehensive Exam

Credits: 0

College: Jefferson College of Health Professions

Schedule Type: Exam, On-Line, Seminar

MLS 422: Med Lab Sci Practicum II

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Clinical, Practicum

MLS 423: Clinical Chemistry Seminar

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: On-Line

MLS 442: Med Lab Sci Practicum III

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Clinical, Practicum

MLS 443: Clinical Microbiology Seminar

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: On-Line

MLS 454: Med Lab Sci Practicum IV

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Clinical, Practicum

MLS 455: Immunohematology Seminar

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: On-Line

Medical Technology (MT)

MT 302: Phlebotomy & Lab Practice

Credits: 1

College: Jefferson College of Health Professions

Prerequisites: LS 303

Schedule Type: Clinical, Lab, Lecture, Practicum

MT 303: Hematology Lecture

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture

MT 304: Hematology Lab

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: Lab

MT 307: Clinical & Molecular Lab Tech

Credits: 4

College: Jefferson College of Health Professions

Schedule Type: Lecture/Lab

MT 308: Instrumentation Lab

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: Lab

MT 309: Biologic Fluids

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lab, Lecture, Lecture/Lab

MT 311: Intro to Medical Microbiology

Credits: 4

College: Jefferson College of Health Professions

Schedule Type: Lecture

MT 312: Microbiology I

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lab

MT 313: Microbiology II

Credits: 3

College: Jefferson College of Health Professions

Prerequisites: MT 312

Schedule Type: Lab, Lecture, Lecture/Lab

MT 315: Clinical Chemistry

Credits: 4

College: Jefferson College of Health Professions

Schedule Type: Lecture

MT 316: Clinical Chemistry Lab

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: Lab

MT 321: Clinical Chemistry I

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lab, Lecture

MT 322: Clinical Chemistry II

Credits: 3

College: Jefferson College of Health Professions

Prerequisites: MT 321

Schedule Type: Clinical, Lab, Lecture

MT 323: Clinical Chemistry I

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Clinical, Lab, Lecture

MT 324: Chemistry II

Credits: 3

College: Jefferson College of Health Professions

Prerequisites: MT 323

Schedule Type: Lecture

MT 325: Medical Technology Seminar

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: Seminar

MT 326: Hematology I

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

MT 328: Immunology

Credits: 4

College: Jefferson College of Health Professions

Schedule Type: Lecture

MT 330: Clinical Chemistry I

Credits: 4

College: Jefferson College of Health Professions

Schedule Type: Lecture

MT 331: Immunology

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lab, Lecture, On-Line

MT 335: Immunohematology I

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

MT 340: Clinical Microbiology I

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

MT 341: Hematology I

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Clinical, Lab, Lecture

MT 342: Biologic Fluids

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: Lecture

MT 343: Hematology II

Credits: 3

College: Jefferson College of Health Professions

Prerequisites: MT 341

Schedule Type: Lab, Lecture

MT 344: Immunohematology

Credits: 5

College: Jefferson College of Health Professions

Schedule Type: Lecture

MT 352: Immunohematology**Credits:** 3**College:** Jefferson College of Health Professions**Prerequisites:** MT 331**Schedule Type:** Lab, Lecture**MT 374: Basic Clinical Techniques****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Lab**MT 375: MLS Seminar****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Seminar**MT 376: Urinalysis and Body Fluids****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lab, Lecture, Lecture/Lab**MT 401: Lab Administration****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**MT 402: Hematology Practicum****Credits:** 4**College:** Jefferson College of Health Professions**Schedule Type:** Clinical**MT 407: Clinical Chemistry Practicum****Credits:** 4**College:** Jefferson College of Health Professions**Schedule Type:** Clinical**MT 408: Clinical Microbiology****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**MT 409: Clinical Microbiology Lab****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Lab**MT 410: Clinical Microbiology Practicum****Credits:** 4**College:** Jefferson College of Health Professions**Schedule Type:** Clinical**MT 411: Clinical Microbiology II****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**MT 412: Med Tech Practicum I****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Practicum**MT 415: Clinical Immunology Practicum****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Clinical**MT 416: Comprehensive Exam****Credits:** 0**College:** Jefferson College of Health Professions**Schedule Type:** Exam, On-Line, Seminar**MT 422: Med Tech Practicum II****Credits:** 3**College:** Jefferson College of Health Professions**Prerequisites:** MT 324 and MT 313 and MT 331 and MT 343 and MT 352**Schedule Type:** Clinical, Practicum**MT 425: Immunohematology****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**MT 426: Immunohematology Lab****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Lab**MT 427: Immunohematology Practicum****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Clinical**MT 429: Research Seminar****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Seminar**MT 430: Clinical Chemistry II****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**MT 431: Clinical Immunology Practicum****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Clinical**MT 435: Immunohematology II****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**MT 441: Hematology II****Credits:** 3**College:** Jefferson College of Health Professions**Prerequisites:** MT 341**Schedule Type:** Lecture**MT 442: Med Tech Practicum III****Credits:** 3**College:** Jefferson College of Health Professions**Prerequisites:** MT 313 and MT 324 and MT 331 and MT 343 and MT 352**Schedule Type:** Clinical, Practicum**MT 452: Immunohematology Practicum****Credits:** 2**College:** Jefferson College of Health Professions**Prerequisites:** MT 451**Schedule Type:** Clinical**MT 453: Immunopathology Practicum****Credits:** 2**College:** Jefferson College of Health Professions**Prerequisites:** MT 331**Schedule Type:** Clinical

MT 454: Med Tech Practicum IV**Credits:** 3**College:** Jefferson College of Health Professions**Prerequisites:** MT 313 and MT 324 and MT 331 and MT 343 and MT 352**Schedule Type:** Clinical, Practicum**MT 499: Independent Study****Credits:** 1-6**College:** Jefferson College of Health Professions**Schedule Type:** Independent Study

Medical Technology Adv Plc (MTAP)

MTAP 412: Clin Microbiology Pract**Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Clinical**MTAP 422: Clin Chemistry Practicum****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Clinical**MTAP 442: Clin Hematology Pract****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Clinical**MTAP 452: Clin Immunohematol Pract****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Clinical

Mgmt of Info Systems (Online) (MISX)

MISX 211: Management Information Systems

Introduces management of information systems, a core business function. Examines how information systems (information technology, people, and processes) can be used to achieve corporate objectives. Utilizes current business cases to illustrate how companies have identified and solved key business challenges using information systems and technologies. Prerequisite: None required; MGMT 212 or MGTX 212 recommended

Credits: 3**College:** School of Business**Schedule Type:** By Appointment - 3 students, On-Line

Midwifery (MIDW)

MIDW 101: First Assist**Credits:** 0**College:** Jefferson College of Health Professions**Schedule Type:** CPE Online with CEUs

Minor Course (MINR)

MINR 1XX: Minor Course Placeholder

Choose 1 minor course with consultation from advisor

Credits: 3**College:** Undefined College**Schedule Type:** Lecture**MINR 2XX: Minor Course Placeholder**

Choose 1 minor course with consultation from advisor

Credits: 3**College:** Undefined College**Schedule Type:** Lecture

Molecular Biology (MB)

MB 452: Practicum: Clinical Applic**Credits:** 2**College:** Jefferson College of Health Professions**Prerequisites:** BT 410**Schedule Type:** Practicum**MB 453: Practicum: Research Applic****Credits:** 2**College:** Jefferson College of Health Professions**Prerequisites:** MB 452**Schedule Type:** Practicum**MB 454: Practicum: Forensic Applic****Credits:** 2**College:** Jefferson College of Health Professions**Prerequisites:** MB 453**Schedule Type:** Practicum

Music (MUSC)

MUSC 101: Music Appreciation**Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** By Appointment - 2 students, Lecture, On-Line

Music (Online) (MUSX)

MUSX 101: Music Appreciation

This course is designed for students with no previous formal music training in Western classical music. It provides a foundation for intelligent and appreciative listening of music, through an understanding of the ways in which music is put together, and the various characteristics of musical style.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** By Appointment - 1 student, Online By Appointment 8 Week, On-Line

National Student Exchange (NSE)

NSE 300: National Student Exchange**Credits:** 12**College:** Undefined College**Schedule Type:** Lecture

Neuroscience (NS)

NS 470: Applied Stat for Biomed Sci**Credits:** 2**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture, Seminar

Nursing (NU)

NU 101: Medication Calculations

Credits: 1

College: Jefferson College of Nursing

Schedule Type: Lecture

NU 102: Intro to AD Nursing

Credits: 1

College: Jefferson College of Nursing

Schedule Type: Lecture

NU 104: Pharmacology I

Credits: 1

College: Jefferson College of Nursing

Schedule Type: Lecture

NU 105: Mgmt Adult Acute/Chron Dis I

Credits: 3

College: Jefferson College of Nursing

Schedule Type: Lecture

NU 106: Clinical Practicum I

Credits: 5

College: Jefferson College of Nursing

Schedule Type: Clinical

NU 111: Pharmacology II

Credits: 1

College: Jefferson College of Nursing

Schedule Type: Lecture

NU 113: Mgmt Adult Acute/Chron Dis II

Credits: 1.5

College: Jefferson College of Nursing

Schedule Type: Lecture

NU 114: Clinical Practicum II

Credits: 3

College: Jefferson College of Nursing

Schedule Type: Clinical

NU 125: Mgmt of Childbearing Families

Credits: 1.5

College: Jefferson College of Nursing

Schedule Type: Lecture

NU 126: Clinical Practicum III

Credits: 3

College: Jefferson College of Nursing

Schedule Type: Clinical

NU 203: Pharmacology III

Credits: 1

College: Jefferson College of Nursing

Schedule Type: Lecture

NU 204: Nursing of Children

Credits: 1.5

College: Jefferson College of Nursing

Schedule Type: Lecture

NU 205: Clinical Practicum IV

Credits: 3

College: Jefferson College of Nursing

Schedule Type: Clinical

NU 206: Neuro/Psych Nursing

Credits: 1.5

College: Jefferson College of Nursing

Schedule Type: Lecture

NU 207: Clinical Practicum V

Credits: 3

College: Jefferson College of Nursing

Schedule Type: Clinical

NU 209: Trans to AD Nursing Practice

Credits: 1.5

College: Jefferson College of Nursing

Schedule Type: Lecture

NU 300: Trans to Prof Nursing Ed

Credits: 1.5

College: Jefferson College of Nursing

Schedule Type: Lecture

NU 307: Foundations in Nursing

Credits: 3.5

College: Jefferson College of Nursing

Schedule Type: Exam, Lab, Lecture, Lecture/Lab

NU 308: Introduction to Pharmacology

Credits: 1.5

College: Jefferson College of Nursing

Schedule Type: Exam, Lab, Lecture, Lecture/Lab

NU 315: Hlth Assess Across Lifespan

Credits: 3

College: Jefferson College of Nursing

Schedule Type: Clinical, Didactic, Exam, Lab, Lecture, Lecture/Lab, Lab/Lecture/Online, On-Line

NU 317: Hlth Prom Across Lifespan I

Credits: 3

College: Jefferson College of Nursing

Schedule Type: Exam, Lecture

NU 318: Hlth Prom Across Lifespan II

Credits: 3.5,4.5

College: Jefferson College of Nursing

Schedule Type: Didactic, Exam, Lecture

NU 319: Professional Practice I

Credits: 2

College: Jefferson College of Nursing

Schedule Type: Exam, Lecture

NU 320: Professional Practice II

Credits: 2

College: Jefferson College of Nursing

Schedule Type: Didactic, Exam, Lecture

NU 323: Health Assessment for RNs

Credits: 2

College: Jefferson College of Nursing

Schedule Type: Lecture, On-Line, Practicum

NU 326: Discov & Evidence-Based Pract

Credits: 3

College: Jefferson College of Nursing

Schedule Type: Exam, Lecture

NU 327: Hlth Care Inform & Innovation

Credits: 3

College: Jefferson College of Nursing

Schedule Type: Lecture, Lecture/On-Line, On-Line

NU 328: Immersion Practicum I**Credits:** 2**College:** Jefferson College of Nursing**Schedule Type:** Clinical, Exam, Lecture, Lecture/On-Line, Practicum**NU 329: Immersion Practicum II****Credits:** 4**College:** Jefferson College of Nursing**Schedule Type:** Clinical, Practicum**NU 330: Bridge to Success****Credits:** 0**College:** Jefferson College of Nursing**Schedule Type:** Lecture, Lecture/On-Line, On-Line**NU 335: Comp Nursing Assessment****Credits:** 3**College:** Jefferson College of Nursing**Schedule Type:** Lecture**NU 340: Medication Calculations in Nur****Credits:** 1**College:** Jefferson College of Nursing**Schedule Type:** Exam, Lecture, Lecture/On-Line, On-Line**NU 341: Foundations in Nursing****Credits:** 4**College:** Jefferson College of Nursing**Schedule Type:** Didactic, Exam, Lab, Lecture, Lecture/Lab, Lab/Lecture/Online, On-Line**NU 342: Hlth Prom App Acr Lifespan I****Credits:** 7.5**College:** Jefferson College of Nursing**Schedule Type:** Clinical, Exam, Lab, Lecture, Lecture/Lab, Lecture/On-Line, On-Line**NU 343: Pathophysiology****Credits:** 3**College:** Jefferson College of Nursing**Schedule Type:** Exam, Lecture, Lecture/On-Line, On-Line**NU 344: Hlth Prom App Acr Lifespan II****Credits:** 10**College:** Jefferson College of Nursing**Schedule Type:** Clinical, Exam, Lab, Lecture, Lecture/Lab, Lecture/On-Line, On-Line**NU 345: Pharmacology****Credits:** 3**College:** Jefferson College of Nursing**Schedule Type:** Exam, Lecture, Lecture/On-Line, On-Line**NU 346: Prof Practice in Nursing****Credits:** 2**College:** Jefferson College of Nursing**Schedule Type:** Exam, Lecture, Lecture/On-Line, On-Line**NU 347: Discov & Evidence-Based Pract****Credits:** 2**College:** Jefferson College of Nursing**Schedule Type:** Exam, Independent Study, Lecture, On-Line**NU 395: Health Restoration I****Credits:** 15,30**College:** Jefferson College of Nursing**Schedule Type:** Independent Study**NU 396: Health Restoration II****Credits:** 20**College:** Jefferson College of Nursing**Schedule Type:** Independent Study**NU 408: Nursing Informatics****Credits:** 1**College:** Jefferson College of Nursing**Prerequisites:** IDSC 310**Schedule Type:** Lecture**NU 415: Care Coord & Care Transitions****Credits:** 3**College:** Jefferson College of Nursing**Schedule Type:** Exam, Lecture**NU 416: Pop Hlth & Hlth Disparities****Credits:** 3**College:** Jefferson College of Nursing**Schedule Type:** Exam, Lecture**NU 417: Hlth Prom Across Lifespan III****Credits:** 4.5**College:** Jefferson College of Nursing**Schedule Type:** Exam, Lecture**NU 418: Clinical Reasoning****Credits:** 3**College:** Jefferson College of Nursing**Schedule Type:** Exam, Lecture**NU 419: Professional Practice III****Credits:** 2**College:** Jefferson College of Nursing**Schedule Type:** Exam, Lecture, On-Line, Practicum**NU 420: Professional Practice IV****Credits:** 3**College:** Jefferson College of Nursing**Schedule Type:** Exam, Lecture**NU 423: Nursing Issues and Trends RNs****Credits:** 3**College:** Jefferson College of Nursing**Schedule Type:** Didactic, Exam, Lecture, On-Line**NU 424: Community Health Nursing RNs****Credits:** 3**College:** Jefferson College of Nursing**Schedule Type:** Exam, Lecture, On-Line**NU 425: Community Clinical for RNs****Credits:** 3**College:** Jefferson College of Nursing**Schedule Type:** Clinical, Lecture**NU 428: Immersion Practicum III****Credits:** 4**College:** Jefferson College of Nursing**Schedule Type:** Clinical, Lecture**NU 429: Selected Immersion Practicum V****Credits:** 2.5**College:** Jefferson College of Nursing**Schedule Type:** Clinical, Lecture**NU 430: Adv Immersion Practicum IV****Credits:** 2.5**College:** Jefferson College of Nursing**Schedule Type:** Clinical, Lecture

NU 431: Nursing Research for RNs

Credits: 3

College: Jefferson College of Nursing

Schedule Type: Lecture, On-Line

NU 432: Clinical Practice IV

Credits: 1-3

College: Jefferson College of Nursing

Schedule Type: Clinical

NU 435: NCLEX Prep for Success

Credits: 2

College: Jefferson College of Nursing

Schedule Type: Lecture, On-Line

NU 440: Adv Conc of Nurs Leader

Credits: 3

College: Jefferson College of Nursing

Prerequisites: NU 310

Schedule Type: Didactic, Lab

NU 442: Clinical Practicum VIII

Credits: 3

College: Jefferson College of Nursing

Corequisites: NU 440

Schedule Type: Clinical

NU 445: Contemp Knowledge & Role of RN

Credits: 3

College: Jefferson College of Nursing

Schedule Type: Clinical, Didactic

NU 457: Group Work & Elderly

Credits: 2

College: Jefferson College of Nursing

Schedule Type: Lecture

NU 480: Honors Proj I:Design & Plannin

Credits: 3

College: Jefferson College of Nursing

Schedule Type: Independent Study

NU 482: Honors Proj II:Implemen & Eval

Credits: 3

College: Jefferson College of Nursing

Schedule Type: Independent Study

NU 493: Perspective Seminar

Credits: 2

College: Jefferson College of Nursing

Schedule Type: Exam, Lecture, Lecture/On-Line, On-Line

NU 494: Population Health

Credits: 4

College: Jefferson College of Nursing

Schedule Type: Clinical, Exam, Lab, Lecture, Lecture/Lab, On-Line

NU 495: Hlth Prom App Acr Lifespan III

Credits: 9.5

College: Jefferson College of Nursing

Schedule Type: Clinical, Exam, Lecture/Lab, On-Line

NU 496: Clinical Judgment Applications

Credits: 10

College: Jefferson College of Nursing

Schedule Type: Clinical, Exam, Lecture/Lab

NU 497: Trans to Pract & NCLEX Prep

Credits: 3

College: Jefferson College of Nursing

Schedule Type: Exam, Lecture, Lecture/On-Line, On-Line

NU 498: Prom Hlth & Quality of Life

Credits: 3

College: Jefferson College of Nursing

Schedule Type: Exam, Lecture, Lecture/On-Line, On-Line

NU 499: Independent Study

Credits: 1-6

College: Jefferson College of Nursing

Schedule Type: Independent Study

Nutrition (NUTR)

NUTR 301: Nutrition

Explores the relationship of essential nutrients and other dietary substances to health maintenance and disease prevention. Discusses factors that influence food choices. Analyzes dietary intake and eating habits. Emphasizes personal nutrition education and how to evaluate nutrition information found in the popular media and the consumer marketplace.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, Lecture/On-Line, On-Line

Nutrition (Online) (NUTX)

NUTX 301: Nutrition

Explores the relationship of essential nutrients and other dietary substances to health maintenance and disease prevention. Discusses factors that influence food choices. Analyzes dietary intake and eating habits. Emphasizes personal nutrition education and how to evaluate nutrition information found in the popular media and the consumer marketplace.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: On-Line

Occupational Therapy (OT)

OT 300: Intro to Applied Science

Credits: 1

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Lecture, Lecture/On-Line, On-Line

OT 306: Understanding Research Princip

Credits: 3

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Independent Study, Lecture, Lecture/On-Line, On-Line, Seminar

OT 330: An OT Lens in the Clinic: FWI

Credits: 2

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Clinical, Lecture, Seminar

OT 390: Participation:Occupation&Healt

Credits: 3

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Seminar

OT 400: Interdisciplinary Care Plannin**Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Seminar**OT 499: Independent Study****Credits:** 1-4**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Independent Study, Seminar

Occupational Therapy Assistant (OTA)

OTA 101: Intro Psy & Mentl Hlth for OTA

This course will provide a general introduction to the discipline of psychology. It will also introduce Basic Concepts of OT in mental health. Emphasis will be given to the methods, theories, and findings of psychological research and how these relate to OT mental health intervention. Areas covered include biological bases of behavior, learning, perception, thinking, development, personality, abnormality, and social behavior. Additionally, this course provides a framework for students to learn the major theories of psychology and how they relate to theories used in the OT for mental health.

Credits: 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture, On-Line**OTA 300: Anat, Physiology & Biomechanics**

This course will examine the anatomical and physiological aspects of the various systems of humans, including integumentary, neurologic, sensory, musculoskeletal, reproductive, circulation, respiration, nutrition-digestion, excretion and endocrine. Biomechanics of muscles, bones, and ligaments of the human body and the interactions between these structures to illustrate how movements are performed will be addressed. Students will be introduced to strategies for adaptation that can lead to improved function in relevant contexts. The OT Practice Framework 2 terminology will be used to describe daily life problem solutions. A close correlation between lecture and laboratory topics will be maintained.

Credits: 6**College:** Jefferson College of Rehabilitation Sciences**Prerequisites:** BIOL 101 or BIOL 101AC or BIOL 103 [Min Grade: D]**Schedule Type:** Lab, Lecture, Lecture/Lab**OTA 302: Occp: Infancy Thru Adolescence**

The course will focus on the observations, analysis, and performance of human occupations as they relate to typical changes through normative life tasks in various environments and culture through work, self-care and play leisure. The student will explore normal human physical, social, behavioral and cognitive development and performance from infancy to adolescence. The OT Practice Framework terminology will be used to describe observations and findings. This course includes an offsite fieldwork component to complement academic teaching content.

Credits: 3**College:** Jefferson College of Rehabilitation Sciences**Prerequisites:** HIST 232 [Min Grade: D]**Schedule Type:** Lecture**OTA 304: Occu Across the Lifespan Adult**

The course will focus on the observations, analysis, and performance of human occupations in work, self-care and play/leisure from late adolescence through the elder years. The teaching-learning process will be incorporated, with an emphasis on self-directed learning by doing. The OT Practice Framework terminology will be used to describe observations and findings.

Credits: 3**College:** Jefferson College of Rehabilitation Sciences**Prerequisites:** OTA 302 [Min Grade: D]**Schedule Type:** Lecture**OTA 306: Conditions I: Infancy/Adolesen**

The etiology and symptoms of clinical conditions that are commonly referred for occupational therapy services are examined. The effects of trauma and disease on the biological, psychological, and social domains of occupational behavior are introduced, with particular emphasis on conditions usually experienced from infancy through adolescence. Procedures and precautions ensuring safety for patients and caregivers will be reviewed. This course includes a graded offsite fieldwork component to complement academic teaching content.

Credits: 3**College:** Jefferson College of Rehabilitation Sciences**Prerequisites:** (PSYC 101 or PSYC 101AC) and OTA 300 [Min Grade: D]**Schedule Type:** Lecture**OTA 308: Conditions II: Adulthood**

The etiology and symptoms of clinical conditions that are commonly referred for occupational therapy services are examined. The effects of trauma and disease on the biological, psychological, and social domains of occupational behavior are introduced, with particular emphasis on conditions usually experienced from early adulthood through aging. Procedures and precautions ensuring safety for patients and caregivers will be reviewed. Students will be introduced to the resources available for keeping current as new protocols and best practices develop.

Credits: 3**College:** Jefferson College of Rehabilitation Sciences**Prerequisites:** OTA 306 [Min Grade: D]**Schedule Type:** Lecture**OTA 310: Environ & Contexts of Occupat**

Environments and contexts can have an enormous effect on occupational therapy intervention. Across all practice areas, occupational therapy intervention uses environments and contexts to support the client's/patient's health and participation in meaningful occupations. This course focuses on understanding the complex nature of contexts and environments and their impact on engagement in occupations across the life span.

Credits: 3**College:** Jefferson College of Rehabilitation Sciences**Prerequisites:** OTA 304 [Min Grade: D]**Schedule Type:** Lecture

OTA 400: Leadership & Human Servs Syst

Basic management skills and abilities required as a COTA in occupational therapy and other programs will be defined and analyzed. The student will explore topics associated with health care delivery systems, including contextual factors, federal and state regulations, reimbursement systems, and credentialing laws. Skills in management will be reviewed, including organizing and maintaining workload, marketing services, documentation in its various forms, and supervision of aides and developing skills as a fieldwork educator. Ethical and professional principles will be defined in the context of a variety of employment and intervention settings, with an emphasis on applying AOTA's Code of Ethics to different situations.

Credits: 3

College: Jefferson College of Rehabilitation Sciences

Prerequisites: HIST 232 [Min Grade: D]

Schedule Type: Lecture, On-Line

OTA 402: Ethics & Critical Thinking I

Students will examine the AOTA Code of Ethics in-depth and then use it and the AOTA Occupational Therapy Practice Framework to analyze case studies and examples from fieldwork to further their understanding of liability issues, ethical dilemmas, and decision-making in professional interactions, client interventions, and employment settings.

Credits: 2

College: Jefferson College of Rehabilitation Sciences

Prerequisites: OTA 406 [Min Grade: D]

Schedule Type: Lecture, On-Line

OTA 404: Ethics & Critical Thinking II

Clinical reasoning, ethical principles, and understanding the values of the profession are defined. The student will discuss and describe the value of local, state, and national professional OT organizations, the importance of promoting the profession and developing a personal professional development plan, and recognizing personal strengths and areas for improvement. Students will demonstrate their critical thinking and overall knowledge acquisition by presenting their summative OTA Program Portfolio in conjunction with this course.

Credits: 1

College: Jefferson College of Rehabilitation Sciences

Prerequisites: OTA 402 and OTA 408 [Min Grade: D]

Schedule Type: Lecture, On-Line

OTA 406: Fieldwork level II A

Minimum eight weeks and 300 hours supervised experience. Students apply and integrate didactic knowledge and skills with clients in a variety of settings under the supervision of a registered and licensed occupational therapist. Students are assigned to facility and community settings and receive practical experience applying knowledge and skills with individuals of varying ages and conditions. Prior to enrolling, students must successfully complete all required OTA course, demonstrate current CPR certification, and receive departmental approval.

Credits: 6

College: Jefferson College of Rehabilitation Sciences

Prerequisites: IT 201 and OTA 310 and OTA 400 and OTA 414 [Min Grade: D]

Corequisites: OTA 402

Schedule Type: By Appointment - 1 student, By Appointment - 2 students, By Appointment, Lecture, Rotation

OTA 408: Fieldwork Level II B

Minimum eight weeks and 300 hours supervised experience. Students apply and integrate didactic knowledge and skills with clients in a variety of settings under the supervision of a registered and licensed occupational therapist. Students are assigned to facility and community settings and receive practical experience applying knowledge and skills with individuals of varying ages and conditions. Prior to enrolling, students must successfully complete all required OTA course, demonstrate current CPR certification, and receive departmental approval.

Credits: 6

College: Jefferson College of Rehabilitation Sciences

Prerequisites: OTA 406 [Min Grade: D]

Corequisites: OTA 404

Schedule Type: By Appointment - 1 student, By Appointment - 2 students, By Appointment, Rotation

OTA 410: Interv I:Infancy/Adolescence

Through analysis and simulation of occupations, OTA students gain insight and skill in observation, assessment, documentation, and teaching of adapted self-care, work and play/leisure activities for the person with life challenges from infancy through adolescence. Conditions commonly occurring in this age group will be reviewed. The dynamics of group and individual participation in occupations are explored as they relate to assessment and therapeutic intervention.

Credits: 4

College: Jefferson College of Rehabilitation Sciences

Prerequisites: OTA 302 and OTA 306 [Min Grade: D]

Schedule Type: Lecture

OTA 412: Intervntn II:Young/Mid Adult

Through analysis and simulation of occupations, students gain insight and skills in observation, assessment, documentation, and teaching of adaptive self care, work, and play/leisure activities for the person with life challenges from young through middle adulthood. Conditions commonly occurring in this age group are reviewed. The course includes laboratory and directed offsite fieldwork components to complement lecture content.

Credits: 4

College: Jefferson College of Rehabilitation Sciences

Prerequisites: OTA 304 and OTA 308 and OTA 410 [Min Grade: D]

Schedule Type: Lecture

OTA 414: Intervntn III: Late Adulthood

Through analysis and simulation of occupations, the students gain insight and skills in observation, assessment, documentation, and teaching of adaptive self care, work, and play/leisure activities for the person with life challenges in late adulthood. Conditions commonly occurring in this age group will be reviewed. This course includes laboratory and directed offsite fieldwork components to complement lecture content.

Credits: 4

College: Jefferson College of Rehabilitation Sciences

Prerequisites: OTA 412 [Min Grade: D]

Schedule Type: Lecture

Occupational Therapy Certifica (OTC)

OTC 341: Profess Perspect OT Practice

Credits: 4

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Lecture

OTC 463: Role Acquisition**Credits:** 2**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture**OTC 476: Analysis Human Perf & Behavior****Credits:** 4**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture

Operational Excellence (OPX)

OPX 325: Lean Thinking**Credits:** 3**College:** Jefferson College of Population Health**Schedule Type:** Lecture, On-Line, Seminar**OPX 327: OpEx: Lean Project****Credits:** 1**College:** Jefferson College of Population Health**Schedule Type:** Independent Study, Lecture, On-Line, Seminar

Ota Fieldwork Workshop (COTF)

Pharmacology (MD) (PHAR)

PHAR 100: Biostatistics**Credits:** 2**College:** Jefferson College of Life Sciences**Schedule Type:** Clinical, Lab, Lecture**PHAR 200: Pharmacology****Credits:** 10**College:** Jefferson College of Life Sciences**Schedule Type:** Clinical, Lab, Lecture**PHAR 410: Pharmoeconomics****Credits:** 6**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture

Philosophy (Online) (PHLX)

PHLX 101: Introduction to Philosophy**Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** On-Line**PHLX 203: Ethics**

This course includes an analysis of some of the major classical and contemporary ethical theories. Topics include ethical relativism, ethical absolutism, egoism, natural law, utilitarianism, and situation ethics. Application of ethical theories to moral issues in our society are discussed. Issues of pornography, abortion, euthanasia, affirmative action, capital punishment, and environmental issues may also be discussed.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** On-Line**PHLX 222: Applied Professional Ethics**

This course provides an examination of theories and methods used in ethical decision-making, with application to common issues in business, law, journalism, technology, research, education, and the health professions.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** ENGL 101 or WRIT 101 or ENGX 110 or WRIT 105 [Min Grade: D]**Schedule Type:** On-Line**PHLX 301: World Religions**

This course studies the major religions of the world including Hinduism, Buddhism, Confucius, Taoism, Islam, Judaism, and Christianity. Topics include the absolute, the world, human nature, the problem of humans, and the solution for humans; also topics on the origin of religion, primal religion, and definitions of religion.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** On-Line

Philosophy (PHIL)

PHIL 101: Introduction to Philosophy**Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Independent Study, Lecture**PHIL 203: Ethics****Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture, On-Line**PHIL 222: Applied Professional Ethics**

This course provides an examination of theories and methods used in ethical decision-making, with application to common issues in business, law, journalism, technology, research, education, and the health professions.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** ENGL 101 or WRIT 101 or WRIT 105 or ENGX 110 or ENGL 110 [Min Grade: D]**Schedule Type:** Lecture, On-Line**PHIL 300: World Religions****Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture, On-Line**PHIL 301: Healthcare Ethics****Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Independent Study, Lecture, Lecture/On-Line, On-Line

PHIL 499: Philosophies of the Good Life

What are the ingredients for a life well-lived? Across the centuries, a multitude of thinkers, civilizations, and faith traditions have offered answers to this question. "Philosophies of the Good Life" explores these answers to consider their wisdom and to cultivate insights of our own. In this shared senior-level course, Jefferson students take a moment before graduating to read key texts from a variety of world cultures, discuss them with their classmates and instructor, and define values that will guide them in their professional and personal lives after graduation.

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: (CGIS 300 or CGIS 398 or DBTG 300 or DBTG 398) and (ETHC 200 or ETHC 201 or ETHC 202 or ETHC 207 or ETHC 204 or ETHC 198 or ETHC 215 or ETHC 398) and (ADIV 200 or ADIV 201 or ADIV 202 or ADIV 203 or ADIV 204 or ADIV 206 or ADIV 211 or ADIV 210 or ADIV 212 or ADIV 213 or ADIV 214 or ADIV 221 or ADIV 219 or ADIV 220 or ADIV 215 or ADIV 216 or ADIV 217 or ADIV 218 or ADIV 198) and (MATH 100 or MATH 198 or MATH 101 or MATH 102 or MATH 103 or MATH 110 or MATH 111) and (GDIV 200 or GDIV 221 or GDIV 229 or GDIV 231 or GDIV 233 or GDIV 234 or GDIV 235 or GDIV 236 or GDIV 333 or GCIT 200 or GCIT 210 or GCIT 211 or GCIT 214 or GCIT 215 or GCIT 225 or GCIT 216 or GCIT 217 or GCIT 218 or FREN 101 or FREN 201 or FREN 301 or FREN 102 or FREN 202 or FREN 401 or GER 101 or GER 201 or GER 102 or ITAL 101 or ITAL 201 or ITAL 301 or ITAL 401 or ITAL 102 or ITAL 202 or JAPN 101 or JAPN 201 or JAPN 301 or JAPN 401 or JAPN 102 or JAPN 202 or SPAN 101 or SPAN 201 or SPAN 102 or SPAN 301 or SPAN 401 or SPAN 202 or SPAN 302 or SPAN 110 or SPAN 210 or GCIT 398 or GDIV 398 or GCIT 198 or GDIV 198) and (ISEM 301 or ISEM 302 or ISEM 304 or ISEM 305 or ISEM 307 or ISEM 303 or ISEM 313 or ISEM 340 or ISEM 360 or ISEM 308 or ISEM 378 or ISEM 398 or DECM 300 or ISEM 300 or ISEM 314) and (SCI 101 or SCI 102 or SCI 106 or SCI 108 or SCI 110 or SCI 198 or SCI 199 or BIOL 101 or CHEM 101 or PHYC 101 or CHEM 103 or BIOL 103 or BIOL 398 or PHYC 201 or DECS 202 or DECS 206 or DECS 208 or DECS 209 or SCI 109 or BIOL 112) [Min Grade: D-]

Schedule Type: By Appointment - 1 student, Lecture, On-Line

Photography (POTO)

POTO 101: Intro to Photo: Black & White

This course introduces the technical aspects and controls of a manual 35mm camera together with silver-based black & white film developing and printing methods. Students will develop a fundamental vocabulary for constructive critique of photographs and will generate a photographic portfolio piece, exploring a subject of interest.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: Lecture, Lecture/Studio Combination, Studio

POTO 102: Intro to Photography: Digital

This course is an introduction to the conceptual and technical aspects of digital photography through projects, presentations, critiques and lectures based on both classical and constructed methods of image creation. Topics include: basic camera functions, importing files from digital media, color management, image improvement and manipulation using Adobe Photoshop, Bridge, and Light Room and preparing final images for print and/or screen presentation.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: Lecture, Lecture/Studio Combination, Studio

POTO 201: Studio Photography

This course introduces students to the fundamentals of photographic image making within the controlled environment of the studio. Emphasis is given to lighting techniques using professional strobe equipment; single-lens reflex digital capture on the computer, software for capturing digital photographs, as well as the role of props and setting in the generation of portraiture, fashion and still-life images.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: Lecture, Studio

POTO 204: Intro to Photo Graphic Design

Required for Graphic Design Communication majors, this course focuses upon photography as a tool for graphic designers. Students are introduced to: film and digital camera use, exposure, image processing, and printing; table-top setups with professional studio lighting equipment; and digital documentation of work for portfolios. Prerequisite: DSGNFND-203/GRAPH-102 or permission of prog director.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Prerequisites: DSGF 203 or GRPH 102 [Min Grade: D]

Schedule Type: Lecture, Lecture/Studio Combination, Studio

POTO 205: Photography as Communication

Photography is, quite arguably, the most persuasive form of communication today. In this course we will examine both the history and current role of the camera in news gathering, media and communications, giving special attention to the varied uses of narrative visual storytelling in journalism, marketing, advertising, and social activism. We will analyze the subtle but important differences between photojournalism and documentary photography, with attention to both the ethical standards of the profession and the technical elements of the single-lens digital camera.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: Lecture, Studio

POTO 302: Architectural Photography

In this course students acquire the skills to apply a documentary methodology to thematic explorations of subject matter, specifically related to architecture and the built environment, interiors and cultural landscapes. Students learn to critique photographs of buildings and spaces and to produce high-quality black and white prints.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: By Appointment - 1 student, Lecture, Studio

POTO 303: Photograph Med Experimentation

Alternative printing processes, including salted paper, cyanotype, tintype and platinum/palladium, are examined as a complement to contemporary methods. Emphasis upon medium format and the view camera as tools for documentation, narration, and expression supplement consideration of photography's technical aspects. Through exploration of traditional subjects including architecture, landscape, still life and portraiture, students learn exposure, film processing, film scanning, and large scale inkjet printing.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: By Appointment - 1 student, Lecture, Lecture/Lab, Lecture/Studio Combination, Studio

POTO 307: History of Photography

Since its invention in 1839, photography has played a pivotal role in the formation of modern visual culture. Focusing upon chronological, thematic, and technological developments, this course investigates the diverse expressions and applications of the photographic image within a nexus of philosophical, social, economic, scientific, and aesthetic contexts. Particular emphasis is placed upon: debates concerning the nature and function of images; the medium's impact upon portraiture, high art, popular culture, fashion, and social documentation; and the rise of photojournalism and advertising. Photography as a discreet language of signs, symbols, and metaphors with implied narratives is emphasized

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Prerequisites:** WRIT 211 or WRIT 215 or WRIT 217 or WRIT 201 or WRIT 202 [Min Grade: D]**Schedule Type:** Lecture**POTO 381: Independent Study in Photography**

Independent Study in Photography is a one term student initiated project limited to those students who have finished the full sequence of photography courses. A student proposes a project and works independently with guidance from the instructor. Permission required. See the statement on Independent Study under 'Academic Policies.'

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Independent Study**POTO 436: Historic Pres Doc: Photography**

Begun in 1933, the Historic American Building Survey (HABS) is the first federal preservation program established to document America's architectural heritage. In this course students learn the fundamentals of HABS documentation methods for the production of archival records of historic structures and places, utilizing the 4 x 5 large-format camera. Through field work and labs, students photograph, print, research and narrate comprehensive, technically proficient photographic essays that represent the salient aspects of historic structures, complexes and sites in accordance with HABS standards.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Lecture, Lecture/Studio Combination, Studio

Physical Therapy (PT)

PT 305: Biomechanics and Kinesiology**Credits:** 4**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lab, Lecture, Lecture/Lab**PT 306: Advanced Human Anatomy****Credits:** 5**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lab, Lecture**PT 307: Medical Physiology****Credits:** 2**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture**PT 308: Exercise Physiology****Credits:** 2**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lab, Lecture**PT 309: Clinical Medical Science****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture**PT 310: Neuroscience****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture/Lab**PT 320: Clinical Skills I****Credits:** 4**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lab, Lecture**PT 322: Clinical Skills II****Credits:** 4**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lab, Lecture**PT 330: Phys. Agents/Elect. Modalities****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lab, Lecture**PT 342: Phys Ther as Teach & Learn****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture**PT 350: Intro to Rehabilitation****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lab, Lecture**PT 405: Advanced Clinical Medicine****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture**PT 420: Cardiopulm Phys Therapy****Credits:** 4**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lab, Lecture**PT 440: Orthopaedic Phys Therapy****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lab, Lecture**PT 460: Neurological Phys Therapy I****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lab, Lecture**PT 470: Sel Topics in Physical Therapy****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lab, Lecture**PT 490: Integrated Clinical Affiliatio****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Clinical**PT 499: Independent Study****Credits:** 1-6**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Independent Study

Physician Assistant (PAST)

PAST 400: Medical Terminology

Medical Terminology This competency-based course covers the structure, definition and utilization of basic medical terminology for students entering the health professions. The course is designed for students with some health care experience. Independent reading, workbook exercises, case studies and interactive computer software are the learning modalities used in this experience.

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: By Appointment - 1 student, On-Line

PAST 403: Evidence Based Medicine

This lecture/seminar course provides a foundation for clinical decision making that will be necessary for the future practice of the physician assistant student. The course teaches the basic principles of evidence-based medicine and how to apply them to clinical decision making. Students will learn basic principles of evidence-based medicine, how to formulate a good clinical question, how to access and search the literature, how to evaluate the validity of the literature and how to apply it to answer a clinical question. After the foundational principles have been presented through lectures, students will work in small groups to practice using case based scenarios to apply the principle that they have learned.

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture, Lecture/Phys Asst Group Mtg, Physician Asst Group Meeting

PAST 407A: Advanced Anatomy (A)

Advanced Anatomy This lecture and laboratory course will review basic histology along with the major anatomical structures of the human using a regional organization. Laboratory sessions utilizing microscopic examination, models and cadaver specimen dissection will augment lecture material. Prerequisite: BIOL-202 and BIOL-202L

Credits: 2

College: Jefferson College of Health Professions

Prerequisites: BIOL 202 and BIOL 202L [Min Grade: D]

Schedule Type: Lab, Lecture, Lecture/Lab

PAST 407B: Advanced Anatomy (B)

Advanced Anatomy This lecture and laboratory course will review basic histology along with the major anatomical structures of the human using a regional organization. Laboratory sessions utilizing microscopic examination, models and cadaver specimen dissection will augment lecture material. Prerequisite: BIOL-202 and BIOL-202L

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lab, Lecture, Lecture/Lab

PAST 410: Medical & Professional Ethics

Medical and Professional Ethics Understanding the philosophical principles related to biomedical ethics, patient-practitioner relationships and the role of the physician assistant provider within the health care system are the main topics encompassed in this lecture and discussion seminar course.

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture

PAST 411: Applied Behavioral Science

Applied Behavioral Science The topics of developmental psychology, abnormal psychology, human sexuality, stress responses, behaviors related to psychological health and illness and the diagnosis and management of common psychological disorders are the focus of this lecture course.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

PAST 413: Med Physiology & Pathophysiolo

Medical Physiology and Pathophysiology This lecture course is designed to teach the principles of human medical physiology along with the physiological mechanisms of common disease states.

Credits: 3

College: Jefferson College of Health Professions

Prerequisites: (BIOL 202 and BIOL 202L) and (BIOL 221 and BIOL 221L) [Min Grade: D]

Schedule Type: Lecture

PAST 421: Genetics, Immun & Microbio

Medical Genetics and Microbiology This lecture course presents current concepts and issues in medical genetics, immunology and microbiology. It focuses on diseases of genetic origin, the function of the immune system and emerging trends in disorders caused by microorganisms.

Credits: 2

College: Jefferson College of Health Professions

Prerequisites: BIOL 221 and BIOL 221L [Min Grade: D]

Schedule Type: Lecture

PAST 422: Medicine I

This first of a three-semester lecture-based course is designed to provide students with the medical and scientific concepts needed to practice medicine to include physiology, pathophysiology, clinical presentations of disease states, diagnostics studies, and treatment approaches.

Credits: 7

College: Jefferson College of Health Professions

Schedule Type: Lecture

PAST 424: Patient Care & Clin Reasonig I

This is the first of a three-semester lecture, skills, and clinical reasoning laboratory-based course designed to provide students with the communication, humanistic, medical history, physical examination, and clinical reasoning skills needed to practice medicine.

Credits: 5

College: Jefferson College of Health Professions

Schedule Type: Lecture

PAST 426: Principles of PA Practice I

In this first lecture-based course of a three-semester series, you will learn about many components and aspects that embody the art of the practice of medicine. It also includes exploring those areas where the work of a PA intersects with ethics, evidence-based medicine, medical research, behavioral medicine, health care systems, and policy and public health.

Credits: 4

College: Jefferson College of Health Professions

Schedule Type: Lecture

Physics (Online) (PHYX)

PHYX 103: Concepts of Physics

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: On-Line

Physics (P4) (PHY)

PHY 101: Physics I

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lab, Lecture, Lecture/Lab

PHY 102: Physics II

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lab, Lecture, Lecture/Lab, On-Line, Seminar

PHY 103: Physics I Laboratory

Credits: 1

College: Jefferson College of Life Sciences

Schedule Type: Lab

PHY 104: Physics II Laboratory

Credits: 1

College: Jefferson College of Life Sciences

Schedule Type: Lab, Lecture, On-Line

Physics (PHYC)

PHYC 101: General Physics

(For non-science majors) The basic laws of mechanics and thermodynamics are covered. The emphasis will be on understanding the major laws of physics and the way they manifest themselves in practical applications and in laboratory experiments.

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: MATH 102 or MATH 103 or MATH 111 [Min Grade: D]

Schedule Type: Lab, Lecture, Lecture/Lab, On-Line

PHYC 102: Conceptual Physics

Conceptual Physics is a one-semester course in physics for Industrial Design and other interested students. The course will include a brief introduction to some important laws of physics, and focus on sound, electricity, and electromagnetic waves. The physical principles underlying commonly used technologies such as MRI scanners, microwave ovens, and generators are discussed. The Conceptual approach used in this course puts physics before mathematics, although mathematics (algebra and trigonometry) is still used to reinforce the concepts. Interactive lectures and discussions as well as student-centered individual and group activities in the lab serve as teaching methods.

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: MATH 100 or MATH 101 or MATH 102 or MATH 111 or MATH 103 [Min Grade: D]

Schedule Type: Lab, Lecture

PHYC 111: Algebra-base PHYC I-Mach&Thermo

An algebra-based course covering the basic laws of mechanics and thermodynamics. The emphasis will be on understanding the major laws of physics and the way they manifest themselves in practical applications and in laboratory experiments. Topics include Newton's laws, conservation laws, statics, torque, and viscous fluid dynamics.

Credits: 4

College: Jefferson College of Humanities & Sciences

Prerequisites: MATH 102 or MATH 103 or MATH 110 or MATH 111 [Min Grade: D]

Schedule Type: Lab, Lecture, Lecture/Lab

PHYC 112: Algebra-Based PHYS II-Electrici

An algebra-based course covering the concepts of electricity, magnetism, and optics. This course uses real world examples to enhance comprehension of physical principles. Additional topics will include radiation, imaging, and basic atomic theory.

Credits: 4

College: Jefferson College of Humanities & Sciences

Prerequisites: PHYC 111 [Min Grade: D]

Schedule Type: Lab, Lecture

PHYC 201: Physics I

(required for science and Engineering majors) A calculus-based course emphasizing Newton's three laws of motion and the conservation laws of energy, linear momentum and angular momentum as first integrals of the dynamics. Additional topics in mechanics include stress and strain, simple harmonic motion and hydrostatics. Absolute temperature scales, thermal expansion, specific heats, methods of transfer of heat energy, ideal gases and real gases are considered before studying the first and second laws of thermodynamics, with the concept of entropy emphasized in the latter.

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: MATH 111 [Min Grade: D]

Corequisites: PHYC 201L

Schedule Type: Lecture, On-Line

PHYC 201L: Physics I Lab

In this one-credit laboratory course students perform, analyze and submit lab reports based on experiments which test the theories developed in mechanics and heat and they take quizzes based both on the lab instructions and material from the lectures.

Credits: 1

College: Jefferson College of Humanities & Sciences

Corequisites: PHYC 201

Schedule Type: Lab, On-Line

PHYC 203: Phys II: Waves, Elec, & Mag

The mathematical representation of traveling sinusoidal waves and standing-wave patterns is emphasized. Applications are made to sound waves. Electrostatics include Gauss's law, electric potentials and the potential gradient equation. The field concepts are used to interpret elementary D.C. circuits including Kirchhoff's Rules. Capacitors as circuit elements and dielectrics are also studied. The effects of the magnetic field, its sources, induced EMFs and magnetic materials are considered. Series AC circuits conclude electromagnetism. Geometric optics includes lenses, mirrors and optical instruments. Physical optics includes interference and polarization of light waves.

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: PHYC 201 and PHYC 201L [Min Grade: D]

Corequisites: PHYC 203L

Schedule Type: Lecture

PHYC 203L: Physics II Lab

In this one-credit laboratory course students perform, analyze and submit lab reports based on experiments which test the theories developed in waves, electricity and magnetism, and light. They take quizzes based both on the lab instructions and material from the lectures.

Credits: 1

College: Jefferson College of Humanities & Sciences

Corequisites: PHYC 203

Schedule Type: Lab

PHYC 301: Introduction to Physics

Credits: 3,4

College: Jefferson College of Health Professions

Schedule Type: Independent Study, Lecture, On-Line

PHYC 314: Elements of Quantum Mechanics

The experimental background of quantum mechanics is reviewed before its postulates are introduced, and the theory is used to solve one-dimensional examples including the harmonic oscillator, then ' in three dimensions ' the hydrogen atom, electron spin and atomic spectra. Applications to chemistry are stressed.

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: MATH 225 and PHYC 201 [Min Grade: D]

Schedule Type: Lecture

Physiology (MD) (PHYS)

PHYS 100: Physiology

Credits: 8

College: Jefferson College of Life Sciences

Schedule Type: Clinical, Lab, Lecture

PHYS 203L: Physics II Lab

Credits: 1

College: Jefferson College of Humanities & Sciences

Schedule Type: Lab

PHYS 402: Advanced Gastrointestinal Phys

Credits: 6

College: Jefferson College of Life Sciences

Schedule Type: Clinical, Lab, Lecture

Placement Math (PLMA)

PLMA 101: Math Placement

Credits: 0

College: Undefined College

Schedule Type: Lecture

Placement Writing (PLWR)

PLWR 101: Writing Placement

Credits: 0

College: Undefined College

Schedule Type: Lecture

Political Science (POSC)

POSC 101: Government of the U.S.

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Independent Study, Lecture, On-Line

Print Design (PRNT)

PRNT 101: Intro to Print Design

This course introduces the basic concepts and processes of analog and digital printing methods. Students will learn the hands on process of screen-printing as well as the technical process of large format digital printing. This class explores the use of printing as a vehicle for both creative expression and visual communication. This course is closed to all Textile Design majors.

Credits: 3

College: School of Design & Engineering

Prerequisites: ARFD 102 or DSGF 203 or VDES 101 or INDD 102 [Min Grade: D]

Schedule Type: Lecture, Studio

PRNT 301: Printing Practices

This course introduces production of printed textiles by hand-screen and digital fabric printing methods. Students will learn a technical process of color separations, screen making and printing in both digital and conventional (hands on) modes. Integration of digital and hands-on printing are encouraged toward the end of the course. The main focus is placed on aesthetics of color and styling in textile design on fabric. Sketchbook study will be required to document design processes, ideas and drawings.

Credits: 3

College: School of Design & Engineering

Prerequisites: TEXT 206 or PRNT 305 [Min Grade: D]

Schedule Type: By Appointment - 2 students, Lecture, Studio

PRNT 303: Print Design Studio I

Techniques, materials, tools and basic information needed for the design on paper of printed fabrics for the apparel and home furnishing fields are studied. Hands on approaches with gouache and watercolor are used to prepare colorway and repeats. Students prepare a portfolio and learn to keep a sketchbook. A brief introduction to printing methods is included

Credits: 3

College: School of Design & Engineering

Prerequisites: DRAW 303 [Min Grade: D]

Schedule Type: Lecture, Studio

PRNT 305: Textile Printing Technology

The theory and practice of all aspects of industrial printing techniques are presented in a lecture/demonstration/lab format. Cloth preparation and finishing, machinery, dyestuffs and various print styles are included. This course offers practical background knowledge to students with primary interest in textile design, styling, marketing, quality control and textile manufacturing.

Credits: 3

College: School of Design & Engineering

Schedule Type: Lab, Lecture, Lecture/Lab

PRNT 307: Printing Technology

The course consists of lecture and lab that focuses on the principles, techniques and chemical processes involved with printing technologies. This course covers printing mechanisms, chemistry, coloration systems and styles for impact, non-impact, additive and subtractive printing. Media preparation, post treatment (fixation) and industrial testing standards are also examined. At the same time, the course also introduces the principal of surface Imaging supply chains, including design, manufacturing, marketing, product distribution and as well as ecological practices. This is an undergraduate elective course for all students. At the same time, it is one of designated elective courses for Textile Design major.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture, Studio**PRNT 315: Print Design Studio II**

This course focuses on creative use of CAD in surface patterning, which integrates with hands-on design applications that students acquired in PRNT- 303 Print Design I. Digital workflow, which includes scanning croquis, designing pattern on CAD, digital color matching and color ways will be introduced. At the same time, strong emphasis is placed on making croquis, which develop from drawings and paintings in the sketchbook. Students will create printed textile designs and patterns for Jacquard designs on paper with digital printers for apparel and home furnishing fields. Throughout the semester, sketchbook study will also be required to document the working process, as well as drawings and paintings.

Credits: 3**College:** School of Design & Engineering**Prerequisites:** PRNT 303 [Min Grade: C]**Schedule Type:** Lecture, Lecture/Studio Combination, Studio**PRNT 331: Print Design Studio III**

Advanced course to give students further necessary experience in developing and producing creative designs for special markets, end uses and fabrics. Market research is required before projects are begun.

Credits: 3**College:** School of Design & Engineering**Prerequisites:** PRNT 315 [Min Grade: D]**Schedule Type:** By Appointment, Lecture, Studio

Prior Learning Assessment (PLA)

Professional Coursework (PROF)

PROF 100: Professional Credits**Credits:** 39**College:** Jefferson College of Health Professions**Schedule Type:** Independent Study

Psychology (Online) (PSYX)

PSYX 100: Fundamentals of Psychology**Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** On-Line**PSYX 101: Fundamentals of Psychology I**

This course examines the nature of psychology as a social and behavioral science. It surveys fundamental areas in behavior including research in psychology, the brain and behavior, learning, human development and socialization, intelligence, personality, health psychology, and social psychology.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** On-Line**PSYX 251: Abnormal Psych****Credits:** 3**College:** Jefferson College of Health Professions**Prerequisites:** PSYC 100 or PSYC 101 or PSYC 101AC or PSYX 100 or PSYX 101 [Min Grade: D]**Schedule Type:** On-Line**PSYX 253: Developmental Psych****Credits:** 3**College:** Jefferson College of Health Professions**Prerequisites:** PSYC 100 or PSYC 101 or PSYC 101AC or PSYX 100 or PSYX 101 [Min Grade: D]**Schedule Type:** On-Line**PSYX 254: Psychology of Addiction****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** On-Line**PSYX 256: Psychology of Trauma**

This course provides an overview of psychological trauma. The history, etiology, theories, assessment, diagnosis, and treatment of traumatic stress at different ages across the lifespan will be explored. The course begins with discussion of a range of traumatic events and definitions of trauma symptoms and responses. Next, theoretical frameworks and models useful for understanding traumatic stress reactions are introduced, including developmental psychopathology, cognitive development, neuropsychology, and intergenerational systems theory. In addition, assessment, diagnosis, and the evidence for best intervention practices in treating traumatic stress are examined.

Credits: 3**College:** Jefferson College of Health Professions**Prerequisites:** (PSYC 251 or PSYC 201AC or PSYX 251 or PSYC 201 or PSYX 201 or PSYX 201AC) and (PSYC 253 or PSYC 213AC or PSYX 213AC or PSYC 213 or PSYX 213 or PSYX 253) [Min Grade: D]**Schedule Type:** On-Line**PSYX 262: Counseling Psych****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** By Appointment - 1 student, On-Line**PSYX 263: Inter Relations&Sm Grp Dynamcs****Credits:** 3**College:** Jefferson College of Health Professions**Prerequisites:** PSYC 100 or PSYC 101 or PSYC 101AC or PSYX 100 or PSYX 101 [Min Grade: D]**Schedule Type:** On-Line

Psychology (PSYC)

PSYC 2XX: Psych Designated Elective**Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture

PSYC 3XX: Psych Designated Elective**Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**PSYC 21X: Experimental Psych Elective****Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**PSYC 22X: Clinical Psych Elective****Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**PSYC 23X: Soc/Org Psych Elective****Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**PSYC 24X: Biol. Behavior Psych Elective****Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**PSYC 100: Introduction to Psychology****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** By Appointment - 4 students, Lecture, Lecture/On-Line, On-Line**PSYC 101: Intro to Psychology**

This course is an introduction to the methodology, concepts, principles and issues in the study of behavior. Topics to be covered include: the biological bases of behavior; sensory and perceptual processes; learning, memory and cognition; motivation and emotion; personality, psychopathology and psychological approaches to therapy; and social interactions. This course is a requirement for enrollment in all higher-level psychology courses.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** By Appointment - 4 students, Lecture, Lecture/On-Line, On-Line**PSYC 101T: Transfer Intro to Psychology****Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**PSYC 103: Physiological Psychology**

This course will expand upon the biological bases of behavior. An emphasis will be placed on the relationship between the brain and behavior. Topics will include synthesis of neurotransmitters, an introduction to drugs and behavior and neural substrates that underlie behaviors. Prerequisite: PSYCH 101

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** PSYC 101 [Min Grade: D]**Schedule Type:** Lecture, On-Line**PSYC 198: Transfer Psychology****Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**PSYC 201: Abnormal Psychology**

Consideration of the various classifications and symptomatology of psychopathological disorders ' their origin, assessment, prognosis, treatment and prevention. Prerequisite: PSYCH 101 Minimum Grade of D

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** PSYC 101 or PSYX 101 [Min Grade: D]**Schedule Type:** By Appointment - 1 student, Lecture, On-Line**PSYC 201T: Transfer Abnormal Psychology****Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**PSYC 210: Forensic Psychology**

Students will examine the interplay between the disciplines of psychology and law. The course will examine the psychological and behavioral issues that impact the legal and criminal-justice systems, and how law and justice affect human behavior. Topics to be covered include crime and criminal behavior, victims, law enforcement, trials, witnesses, mental illness and criminal justice, corrections, family law, crime intervention and prevention. Prerequisites: PSYC 101 Minimum Grade of D

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** PSYC 101 [Min Grade: D]**Schedule Type:** Lecture, On-Line**PSYC 211: Learning Theory**

Students will study the acquisition, activation, direction and retention of human and animal behavior. Topics to be covered include instincts, drive, conditioning and instrumental learning, human verbal learning and language learning and memory processes. Prerequisites: PSYC 101 Minimum Grade of D

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** PSYC 101 [Min Grade: D]**Schedule Type:** Lecture**PSYC 212: Cognitive Psychology**

Study of human thinking, memory, problem solving and the relationship between damage to the cortex and information processing. Empirical research and applied examples and demonstrations will be presented to address such topics as the content of memory, memory improvement, strategies and approaches for solving different kinds of problems, and pathologies and problems of thought.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** PSYC 101 [Min Grade: D]**Schedule Type:** Lecture, On-Line**PSYC 213: Developmental Psychology**

Students will analyze the process of human development and change throughout the lifespan. Research on both humans and animals will be presented to promote understanding of human physical, social, emotional and cognitive development. Topics include prenatal and postnatal development, issues and theories of human development, genetic influences and personality and issues related to Prerequisites: PSYC 101 Minimum Grade of D

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** PSYC 101 [Min Grade: D]**Schedule Type:** Lecture, On-Line

PSYC 213T: Transfer Developmental Psych**Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**PSYC 214: History of Psychology**

Students will study the historical development of significant psychological concepts, theories and systems. The focus and far-ranging content of this course serves to provide an overall synthesis of the major subfields of psychology. Prerequisites: PSYC 101 Minimum Grade of D

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** PSYC 101 [Min Grade: D]**Schedule Type:** By Appointment - 1 student, Lecture**PSYC 215: Sports Psychology**

This course is an overview of basic concepts and principles essential to understanding the psychological and behavioral aspects of sport and exercise. Emphasis is given to the conceptual frameworks and the applied aspects of sport performance enhancement and mental skills, exercise behavior and motivation, sociological factors, and health and well-being. Applications are made to future practitioners of coaching, teaching, sports medicine, counseling, sport management, and fitness instruction

Credits: 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture, On-Line**PSYC 216: Positive Psychology**

The goal of positive psychology is to achieve a scientific understanding of effective interventions to build thriving individuals, families, and communities. This course will provide you with an understanding of the core research within the field of positive psychology and how this research can be applied at the individual, dyad, group, institution and community level. Throughout this course you will have the opportunity to explore how positive psychology principles apply within your own experiences and can help you to achieve future goals. This class is a 3-credit lecture course. Prerequisite for this course is Introduction to Psychology (PSYC101).

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** PSYC 101 [Min Grade: D]**Schedule Type:** Lecture, On-Line**PSYC 220: Clinical Psychology**

This course will provide students with an opportunity to use current theories to address individuals with mental health issues. Topics will include professional duties and skills of the clinical psychologist, treatment procedures and resources, and the diagnosis and management of common psychological disorders. Emphasis will be placed on humanistic and behavioral theories of etiology, treatment and the enhancement of psychological wellbeing. Prerequisite: PSYC 201 Minimum Grade of D

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** PSYC 201 [Min Grade: D]**Schedule Type:** By Appointment - 1 student, Lecture**PSYC 221: Personality Theory**

This course is a survey and comparative analysis of the major representative theories of personality, both traditional and contemporary. Special topics such as the effects of genetic predisposition, physical status and environmental factors on personality configurations will also be discussed. Prerequisite: PSYC 101 Minimum Grade of D

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** PSYC 101**Schedule Type:** By Appointment - 1 student, Lecture, On-Line**PSYC 222: Counseling Psychology**

This course provides an overview and general understanding of the field of counseling psychology. The course is designed to familiarize students with the basic concepts, interventions, scientific research, professional practices and contemporary issues of the profession of counseling psychology. Students will learn a variety of theoretical approaches and psychotherapy techniques to counseling, including psychoanalytic, behavioral, cognitive and humanistic approaches. The course contains both didactic and skill application to encourage competency in the performance of counseling skills. Prerequisite: PSYC 201 Minimum Grade of D

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** PSYC 201 [Min Grade: D]**Schedule Type:** By Appointment, Lecture**PSYC 223: Marriage and Family**

This course is a survey of family systems and theories underlying marriage and family counseling. The course will explore the history of marriage, the choosing of a partner, parenting styles, and issues that create marital discord and divorce. Specific course objectives are to provide information about the therapeutic process and the practical elements of counseling interactions with families, to identify differences between individual- and system-oriented therapies, and to encourage the integration of theoretical and experiential learning. Prerequisite: PSYC 101 Minimum Grade of D

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** PSYC 101 [Min Grade: D]**Schedule Type:** Lecture, On-Line**PSYC 224: Psychology of Addiction**

This course is a survey of current psychological theories of the addiction process and treatment modalities based on each. Physiology and neurobiology will be considered, but are not the primary focus of the course. Theoretical models include: the disease model, psychoanalytic formulations, conditioning theory, social-learning theory, family-systems theory and the opponent process model. Sociocultural perspectives, including deviance theory, will also be discussed. Prerequisite: PSYC 101 Minimum Grade of D

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** PSYC 101 [Min Grade: D]**Schedule Type:** Lecture

PSYC 226: Psychology of Trauma

Psychology of Trauma provides a survey of the phenomena of psychological trauma. Discussion includes the conceptualization of trauma, defining a trauma event, and the identification of major types of trauma, as well as human responses in the neurobiological, cognitive and behavioral, and relational domains. Prerequisite: PSYCH 101 Minimum Grade of D

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: PSYC 101 [Min Grade: D]

Schedule Type: Lecture

PSYC 227: Introduction to Art Therapy

This course will give undergraduate students an overview of the art therapy profession, including foundations, history, philosophies, theory, and applications. Students will identify and discuss the roots of art therapy in culture and the relevance in modern healthcare and treatment. Students will examine the value of creativity in healing, the role of metaphor, and the importance of skill, talent, experience, performance and mastery as pertains to making artwork for expression. This course is experiential and students will explore the use of art making for expressive, communicative, collaborative, and commemorative purposes.

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture, On-Line

PSYC 230: Industrial Organization Psych

Students will study the more recent methods in testing, interviewing and selection of workers. Training, motivation, performance appraisal, job satisfaction, morale, job analysis, decision making, leadership and organization theory are other topics discussed.

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: PSYC 101 [Min Grade: D]

Schedule Type: Lecture, On-Line

PSYC 231: Psychological Assessment

This is a methods course concerning the basic concepts and techniques of psychological assessment tools (tests) as they are used in the profession of psychology in employment, school, clinical and medical settings. Emphasis will be placed on understanding test design, or what goes into a test, as well as understanding test scores and profiles, or what comes out of a test. Many specific tests will be highlighted throughout the course to help students appreciate psychological tests and become aware of their functions and limitations.

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: PSYC 101 [Min Grade: D]

Schedule Type: Lecture

PSYC 232: Social Psychology

Students will study the experimental analysis of the individual as subjected to the social influence of other individuals or social groups. Topics to be covered include persuasion, conformity, aggression, altruism, prejudice and interpersonal attraction and an analysis of the research methods used to study these behaviors. Prerequisite: PSYCH 101 Minimum Grade of D

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: PSYC 101 [Min Grade: D]

Schedule Type: Lecture

PSYC 233: Interpers Relat&Sml Grp Dynam

This course is designed to provide a theoretical and experiential exposure to group formation, group process and group dynamics, as well as to interpersonal relationships within and between groups.

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Hybrid, Lecture, Lecture/On-Line, On-Line

PSYC 234: Cultural and Social Diversity

The ability to work with individuals from different cultures is increasingly recognized as an essential skill for success, particularly in the fields of human services, business, communications, and medicine. Still, most people have not mastered a cross-cultural skill set. This course examines the changing demographics of the United States, teaches the core competencies for successful crosscultural interactions, and prepares students for crosscultural teamwork and leadership

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

PSYC 235: Educational Psychology

Educational Psychology provides a contextual understanding of the process of human development, learning, change as it pertains to schools. The topic includes cognitive, language, personality and sociocultural development in the context of education. Discussion explores thought provoking contemporary research and theory as well as applications to everyday life.

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: PSYC 101 [Min Grade: D]

Schedule Type: Hybrid, Lecture, On-Line

PSYC 240: Comparative Psychology

This course will provide a survey of the study of animal behavior as related to psychology. Students will become familiar with approaches, fundamental concepts and contemporary research findings of the field. Topics include patterns and development of behavior in animals, neural and hormonal influences, animal learning and cognition and the evolution of behavior.

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: PSYC 101 or BIOL 104 [Min Grade: D]

Schedule Type: Lecture

PSYC 241: Psychopharmacology

Students will study the basic principles of drug action in the central nervous system. Topics will include effects of stimulants, depressants, intoxicants and drug abuse on behavioral function. The clinical use of drugs in the treatment of psychological and psychiatric disorders will be discussed. Prerequisite: PSYCH 103 Minimum Grade of D or BIOL 201 Minimum Grade of D

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: PSYC 103 or BIOL 201 [Min Grade: D]

Schedule Type: Lecture, On-Line

PSYC 242: Sensations and Perceptions

Sensations refer to information about the environment gathered through the senses. Perception is the process by which sensory information is interpreted and made meaningful. This course will provide a survey of the study of sensation and perception from structural, functional and cognitive viewpoints.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** PSYC 101 [Min Grade: D]**Schedule Type:** Lecture, On-Line**PSYC 243: Human Sexuality**

This course involves a rigorous examination of the biological, behavioral and mental aspects of human sexuality. Among the topics to be studied are anatomy and physiology, conception and contraception, sex roles, love, sexual communication, sexual dysfunctions and social issues such as pornography.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Hybrid, Lecture, On-Line**PSYC 244: Health Psychology**

This course will introduce you to the field of health psychology, which considers the impact of psychological, behavioral, and sociocultural factors on health and well-being. We will examine the ways that stress can negatively impact physical health, immune function, and risk for chronic health conditions, along with coping strategies that promote resilience. We will also consider empirically supported strategies for health promotion and maintenance, illness prevention, pain management, and illness treatment.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** By Appointment - 1 student, Hybrid, Lecture, On-Line**PSYC 251: Abnormal Psych****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** By Appointment - 1 student, By Appointment - 2 students, Lecture, On-Line**PSYC 253: Developmental Psych****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** By Appointment - 2 students, By Appointment - 3 students, Lecture, On-Line**PSYC 254: Psychology of Addiction****Credits:** 3**College:** Jefferson College of Health Professions**Prerequisites:** PSYC 101AC or PSYC 101 or PSYC 100 or PSYX 100 or PSYX 101 [Min Grade: D]**Schedule Type:** By Appointment - 1 student, Lecture, On-Line**PSYC 256: Psychology of Trauma**

This course provides an overview of psychological trauma. The history, etiology, theories, assessment, diagnosis, and treatment of traumatic stress at different ages across the lifespan will be explored. The course begins with discussion of a range of traumatic events and definitions of trauma symptoms and responses. Next, theoretical frameworks and models useful for understanding traumatic stress reactions are introduced, including developmental psychopathology, cognitive development, neuropsychology, and intergenerational systems theory. In addition, assessment, diagnosis, and the evidence for best intervention practices in treating traumatic stress are examined.

Credits: 3**College:** Jefferson College of Health Professions**Prerequisites:** (PSYC 251 or PSYC 201AC or PSYC 201 or PSYX 201 or PSYX 201AC) and (PSYC 253 or PSYC 213AC or PSYX 213AC or PSYC 213 or PSYX 213 or PSYX 253) [Min Grade: D]**Schedule Type:** By Appointment - 2 students, Lecture, On-Line**PSYC 262: Counseling Psych****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** By Appointment - 2 students, Lecture, On-Line**PSYC 263: Inter Relations&Sm Grp Dynamcs****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** By Appointment - 4 students, Lecture, On-Line**PSYC 298: Transfer Psychology****Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**PSYC 302: Psychology of Creativity**

Catalog Description: This course provides students with a survey of theories of creativity and introduces them to facets of the concept of creativity beyond the traditional domains of art and design. Students will apply a case-study method to exemplars of creativity—both eminent and everyday creators—as a means of understanding the nature of creative phenomena across the broad spectrum of the construct. This course satisfies a portion of the creativity core curriculum requirements for all undergraduate students at Jefferson. This is a writing intensive course.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** WRIT 201 or WRIT 202 [Min Grade: D]**Schedule Type:** Lecture**PSYC 322: Research Method Behavior Sci**

This course introduces psychology as an experimental science in which hypotheses are generated and tested. Major topics will include various types of experimental designs, subject selection and randomization. Students will be introduced to various data collection methods and research designs specific to the different branches of psychology.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** STAT 321 or STAT 220 [Min Grade: D]**Schedule Type:** Lab, Lecture, Lecture/Lab, On-Line**PSYC 350: Psychology of Adjustment****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** On-Line

PSYC 371: Selected Topics in Psychology

An in-depth consideration of a particular topic, issue or problem in psychology that is of special interest to students and faculty. Recent sections have discussed topics such as educational psychology, psychosexual development and the psychology of trauma. Topic selection will be done in advance of registration.

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: PSYC 101 [Min Grade: D]

Schedule Type: Independent Study, Lecture

PSYC 381: Indep Study in Psychology

For further details, see general description of Independent Study in 'Academic Policies' section

Credits: 1-3

College: Jefferson College of Humanities & Sciences

Schedule Type: By Appointment - 1 student, Independent Study

PSYC 391: Adv Research in Psychology

This course will involve an in-depth exploration of research methods in psychology. Students will conduct an original research project individually or as part of a research team. Through this course, students will apply their psychological training to designing, conducting, analyzing, discussing and presenting their own research project.

Prerequisite: PSYCH322 Minimum Grade of D

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: PSYC 322 [Min Grade: D]

Schedule Type: By Appointment - 1 student, By Appointment, Hybrid, Lecture

PSYC 410: SR Colloquium in Psychology

This course is a senior-level seminar dealing with current controversial issues in psychology. Students will perform a search of the scientific literature on issues chosen from a list provided by the instructor and organize, analyze, orally present and discuss material with the class. Finally, students will propose a question generated from this activity and design a research structure to answer it.

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: PSYC 391 [Min Grade: D]

Schedule Type: By Appointment - 1 student, Lecture

Public Health (PUBH)

PUBH 101: Intro to Public Health

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

PUBH 201: Intro to Epidemiology

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

Rad Sci Cardiac Sonography (RSCS)

RSCS 302: Noninvasive Test Prin & Proced

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

RSCS 311: Cardiovascular Physiology

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

RSCS 312: Cardiovascular Pathophysiology

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture

RSCS 321: Pat Care & Serv in Diag Imag

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture, Lecture/On-Line, On-Line

RSCS 322: Cardiovascular Pharmacology

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

RSCS 323: Patient Care & Serv in Diag Im

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: Lecture, Lecture/On-Line, On-Line

RSCS 331: Cardiac Procedures I

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lab, Lecture

RSCS 332: Cardiac Procedures II

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lab, Lecture

RSCS 351: Cardiac Principles I

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

RSCS 352: Cardiac Principles II

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

RSCS 400: Ultrasound Physics I

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

RSCS 403: Ultrasound Physics II

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture

RSCS 411: Clinical Cardiac I

Credits: 6

College: Jefferson College of Health Professions

Schedule Type: Clinical, Lecture

RSCS 412: Clinical Cardiac II

Credits: 6

College: Jefferson College of Health Professions

Schedule Type: Clinical

RSCS 413: Clinical Cardiac III

Credits: 8

College: Jefferson College of Health Professions

Schedule Type: Clinical

RSCS 414: Clinical Cardiac IV

Credits: 6

College: Jefferson College of Health Professions

Schedule Type: Lecture

RSCS 415: Clinical Cardiac Sonog V

Credits: 6

College: Jefferson College of Health Professions

Schedule Type: Clinical

RSCS 416: Clinical Cardiac Sonog VI

Credits: 8

College: Jefferson College of Health Professions

Schedule Type: Clinical

RSCS 432: Computed Tomog Proced II

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

RSCS 481: Cardiac Review Seminar

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture, Lecture/On-Line, On-Line, Seminar

RSCS 491: Special Topics Cardiac Sonog

Credits: 1-2

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

RSCS 492: Special Topics Cardiac Sonog

Credits: 1-2

College: Jefferson College of Health Professions

Schedule Type: Lecture

RSCS 499: Cardiac Sonography Ind Study

Credits: 1-4

College: Jefferson College of Health Professions

Schedule Type: Clinical, Independent Study, Lab, Lecture

Rad Sci Computed Tomography (RSC)

RSC 400: CT Physics & Instrumentation

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, Lecture/On-Line, On-Line

RSC 401: Cross Sectional Anatomy I

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture, Lecture/Lab, On-Line

RSC 402: Cross Sec Anatomy II

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture, Lecture/Lab, Lecture/On-Line, On-Line

RSC 411: CT Patient Care & Safety

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

RSC 412: Clin Computed Tomography I

Credits: 2,6

College: Jefferson College of Health Professions

Schedule Type: Clinical

RSC 413: Clinical CT II

Credits: 6

College: Jefferson College of Health Professions

Schedule Type: Clinical

RSC 414: Clinical CT III

Credits: 8

College: Jefferson College of Health Professions

Schedule Type: Clinical

RSC 421: Clinical Cardiac VI

Credits: 8

College: Jefferson College of Health Professions

Schedule Type: Clinical

RSC 431: CT Procedures I

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

RSC 432: CT Procedures II

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

RSC 433: CT Procedures Simulation Lab I

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: Lab, On-Line

RSC 434: CT Procedures Sim Lab II

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: Lab

RSC 451: Imaging Informatics

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: Lecture

RSC 473: Computed Tomography Seminar

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

RSC 498: Special Topics in CT

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: Lecture

RSC 499: CT Independent Study

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: Independent Study

Rad Sci CT Certificate (RSCC)

RSCC 400: CT Physics and Instrumentation

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, Lecture/On-Line, On-Line

RSCC 401: Cross-Sectional Anatomy

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

RSCC 402: Cross-Sectional Anatomy II**Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** On-Line**RSCC 412: CT Clinical I****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Lecture, On-Line**RSCC 413: CT Clinical II****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Lecture, On-Line**RSCC 414: CT Clinical III****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Lecture, On-Line**RSCC 431: CT Procedure I****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Lecture, Lecture/On-Line, On-Line**RSCC 432: CT Procedures II****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Lecture/On-Line, On-Line**RSCC 433: CT Procedures Simulation LabI****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** On-Line**RSCC 434: CT Procedures Simulation LabII****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** On-Line**RSCC 473: CT Review Seminar****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, On-Line, Seminar

Rad Sci General Sonography (RSS)

RSS 321: Patient Care & Serv in Diag Im**Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Lecture/On-Line, On-Line**RSS 322: Patient Care in Rad Oncology****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Lecture/On-Line, On-Line**RSS 323: Patient Care & Serv in Diag Im****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Lecture/On-Line, On-Line**RSS 400: Ultrasound Physics I****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Lecture/On-Line, On-Line**RSS 401: Sonog Cross-Sectional Anat****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, On-Line**RSS 402: Abdominal Sonography I****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, On-Line**RSS 403: Ultrasound Physics II****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**RSS 404: Pelvic Sonography****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, On-Line**RSS 405: Obstetrical Sonography****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**RSS 408: Sonography Review Seminar****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Lecture/On-Line, On-Line**RSS 412: Clinical Sonography I****Credits:** 6**College:** Jefferson College of Health Professions**Schedule Type:** Clinical**RSS 413: Clinical Sonography II****Credits:** 6**College:** Jefferson College of Health Professions**Schedule Type:** Clinical**RSS 414: Clinical Sonography III****Credits:** 8**College:** Jefferson College of Health Professions**Schedule Type:** Clinical**RSS 415: Sonography Procedures I****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lab, Lecture/Lab**RSS 416: High Resolution Sonography****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**RSS 417: Sonography Procedures II****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lab, Lecture**RSS 418: Clinical Sonography IV****Credits:** 6**College:** Jefferson College of Health Professions**Schedule Type:** Clinical**RSS 419: Clinical Sonography V****Credits:** 6**College:** Jefferson College of Health Professions**Schedule Type:** Clinical

RSS 421: Clinical Sonography VI

Credits: 8

College: Jefferson College of Health Professions

Schedule Type: Clinical

RSS 422: Abdominal Sonography II

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture

RSS 481: Cardiac Review Seminar

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Clinical, Seminar

RSS 493: Ind Study/Vascular Technology

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Independent Study

RSS 498: Spec Topics in General Sonog

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture

RSS 499: Sonography Ind Study

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: Independent Study

Rad Sci Inv Cardiovasc Tech (RSI)

RSI 302: Noninvasive Test Prin & Proced

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

RSI 311: Cardiovascular Physiology

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

RSI 312: Cardiovascular Pathophysiology

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture

RSI 313: Radiobiology Health Physics

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture

RSI 322: Cardiovascular Pharmacology

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture

RSI 338: Invasive Procedures I

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

RSI 339: Invasive Procedures II

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

RSI 341: Radiation Physics & Instrum I

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

RSI 342: Radiography Physics & Instr II

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture

RSI 347: Invasive Instrumentation

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: Lecture

RSI 357: Invasive Principles I

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

RSI 358: Invasive Principles II

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

RSI 431: Clinical Invasive I

Credits: 6

College: Jefferson College of Health Professions

Schedule Type: Clinical

RSI 432: Clinical Invasive II

Credits: 6

College: Jefferson College of Health Professions

Schedule Type: Clinical

RSI 433: Clinical Invasive III

Credits: 8

College: Jefferson College of Health Professions

Schedule Type: Clinical

RSI 483: Invasive Review Seminar

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture, Lecture/On-Line, On-Line, Seminar

RSI 495: Spec Topics in Invasive CVT

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture

Rad Sci Magnetic Resonance (RSM)

RSM 321: Pat Care & Serv in Diag Imag

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

RSM 400: MRI Physics&Instrumentation I

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

RSM 401: Cross Sectional Anatomy I

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture, Lecture/Lab, On-Line

RSM 402: Cross Sec Anatomy II**Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Lecture/Lab, Lecture/On-Line, On-Line**RSM 403: MRI Phys and instrument II****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, On-Line**RSM 411: MRI Patient Care & Safety****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, On-Line**RSM 412: Clinical MRI I****Credits:** 6**College:** Jefferson College of Health Professions**Schedule Type:** Clinical**RSM 413: Clinical MRI II****Credits:** 6**College:** Jefferson College of Health Professions**Schedule Type:** Clinical**RSM 414: Clinical MRI III****Credits:** 8**College:** Jefferson College of Health Professions**Schedule Type:** Clinical**RSM 415: MRI Pathology****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Lecture/On-Line, On-Line**RSM 431: MRI Procedures I****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, On-Line**RSM 432: MRI Procedures II****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Lecture/On-Line, On-Line**RSM 433: MRI Procedures Simulation Lab****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Lab**RSM 434: MRI Procedures Sim Lab II****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Lab**RSM 451: Imaging Informatics****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**RSM 473: MRI Seminar****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, On-Line**RSM 474: MRI Advanced Scanning Seminar****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, On-Line**RSM 498: MRI Special Topics****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**RSM 499: MRI Independent Study****Credits:** 1-4**College:** Jefferson College of Health Professions**Schedule Type:** Independent Study, Lecture

Rad Sci Medical Dosimetry (RSD)

RSD 321: Patient Care Med & Ima Rad Onc**Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**RSD 322: Patient Care in Rad Oncology****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, On-Line**RSD 401: Cross Sectional Anatomy I****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, On-Line**RSD 402: Cross Sec Anatomy II****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**RSD 412: Clinical Med Dosimetry I****Credits:** 6**College:** Jefferson College of Health Professions**Schedule Type:** Clinical**RSD 413: Clinical Med Dosimetry II****Credits:** 6**College:** Jefferson College of Health Professions**Schedule Type:** Clinical**RSD 414: Clinical Med Dosimetry III****Credits:** 8**College:** Jefferson College of Health Professions**Schedule Type:** Clinical**RSD 415: Clinical Radiation Oncology****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Lecture**RSD 430: Case Studies in Dosimetry****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, On-Line**RSD 435: Medical Dosimetry Physics I****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lab, Lecture, Lecture/Lab, On-Line**RSD 436: Medical Dosimetry Physics II****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Lecture/On-Line, On-Line

RSD 437: Intro to Rad Oncol & Pat Care

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture

RSD 439: Radiation Protection

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

RSD 440: Intro to Radiobiology

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

RSD 442: Quality Assurance & Instrument

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

RSD 443: Brachytherapy

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture

RSD 444: Spec Proced for Radiotherapy

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture

RSD 451: Digital Imaging

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture

RSD 473: Med Dosimetry Review Seminar

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Seminar

RSD 480: Survey of Medical Imaging

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

RSD 499: Med Dosimetry Ind Study

Credits: 1-4

College: Jefferson College of Health Professions

Schedule Type: Independent Study

Rad Sci Nuclear Medicine (RSN)

RSN 321: Pat Care & Serv in Diag Imag

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture

RSN 400: Medical Nuclear Physics

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, Lecture/On-Line

RSN 410: Medical Radiobiology

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture

RSN 411: Nuclear Med Pat Care & Safety

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

RSN 420: Radiation Protection

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

RSN 425: Nuclear Med Chemistry Review

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture

RSN 430: Nuclear Med Instrumentation

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

RSN 440: Health Sciences Research

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: Lecture

RSN 451: Imaging Informatics

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: Lecture

RSN 455: Nuclear Med Procedures I

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

RSN 456: Nuclear Med Procedures II

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

RSN 457: Nuclear Med Procedures III

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture

RSN 458: Nuclear Med Adv Procedures

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture

RSN 460: Radiochem & Radiopharmaceutic

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

RSN 461: Nuclear Medicine Lab I

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: Lab

RSN 462: Nuclear Medicine Lab II

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: Lab

RSN 470: Clinical Nuclear Med I

Credits: 6

College: Jefferson College of Health Professions

Schedule Type: Clinical

RSN 471: Clinical Nuclear Med II**Credits:** 6**College:** Jefferson College of Health Professions**Schedule Type:** Clinical**RSN 472: Clin Nuclear Med III****Credits:** 8**College:** Jefferson College of Health Professions**Schedule Type:** Clinical**RSN 473: Clinical Nuclear Med IV****Credits:** 6**College:** Jefferson College of Health Professions**Schedule Type:** Clinical**RSN 474: Clinical Nuclear Med V****Credits:** 8**College:** Jefferson College of Health Professions**Schedule Type:** Clinical**RSN 475: Clinical Nuclear Med VI****Credits:** 8**College:** Jefferson College of Health Professions**Schedule Type:** Clinical**RSN 499: Nuclear Med Review Seminar****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Seminar

Rad Sci PET/CT (RSPC)

RSPC 400: CT Physics & Instrumentation**Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Lecture/On-Line, On-Line**RSPC 401: Cross - Sectional Anatomy****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, On-Line**RSPC 402: Cross-Sectional Anatomy II****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** On-Line**RSPC 412: PET/CT Clinical I****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Clinical**RSPC 413: PET/CT Clinical II****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Clinical**RSPC 414: PET/CT Clinical III****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Clinical**RSPC 415: PET Procedures****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, On-Line**RSPC 431: CT Procedures I****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Lecture/On-Line, On-Line**RSPC 432: CT Procedures II****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Lecture/On-Line, On-Line**RSPC 451: PET Principles****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, On-Line

Rad Sci Radiation Therapy (RST)

RST 321: Patient Care Med & Ima Rad Onc**Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**RST 322: Patient Care in Rad Oncology****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** On-Line**RST 401: Cross Sectional Anatomy I****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, On-Line**RST 402: Cross Sec Anatomy II****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**RST 409: Rad Therapy Prin & Proc I****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, On-Line**RST 409L: Radiation Therapy Lab I****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Lab**RST 412: Clinical Rad Therapy I****Credits:** 6**College:** Jefferson College of Health Professions**Schedule Type:** Clinical**RST 413: Clinical Rad Therapy II****Credits:** 6**College:** Jefferson College of Health Professions**Schedule Type:** Clinical**RST 414: Clinical Rad Therapy III****Credits:** 10**College:** Jefferson College of Health Professions**Schedule Type:** Clinical**RST 415: Clinical Radiation Oncology****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Lecture

RST 416: Principles of Rad Dosimetry

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture

RST 417: Clinical Radiation Oncology

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Clinical

RST 418: Clinical Radiation Therapy IV

Credits: 6

College: Jefferson College of Health Professions

Schedule Type: Clinical

RST 419: Rad Therapy Prin & Proc II

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

RST 420: Clinical Rad Therapy V

Credits: 6

College: Jefferson College of Health Professions

Schedule Type: Clinical

RST 421: Clinical Rad Therapy VI

Credits: 8

College: Jefferson College of Health Professions

Schedule Type: Clinical

RST 424: Clinical Rad Therapy I

Credits: 4

College: Jefferson College of Health Professions

Schedule Type: Clinical

RST 429: Rad Therapy Prin & Proc III

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

RST 435: Radiation Therapy Physics I

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

RST 436: Radiation Therapy Physics II

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture, Lecture/On-Line, On-Line

RST 437: Intro to Rad Oncol & Pat Care

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture

RST 438: Intro to Applied Mathematics

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: Lecture

RST 439: Radiation Protection

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

RST 440: Intro to Radiobiology

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

RST 441: Radiation Therapy Physics III

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: Lecture

RST 444: Spec Proced for Radiotherapy

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture

RST 451: Digital Imaging

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture

RST 473: Rad Therapy Review Seminar

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: On-Line, Seminar

RST 499: Radiation Therapy Ind Study

Credits: 1-4

College: Jefferson College of Health Professions

Schedule Type: Independent Study

Rad Sci Radiography (RSR)

RSR 313: Radiobiology Health Physics

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture

RSR 321: Patient Care & Serv in Diag Im

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

RSR 331: Radiographic Procedures I

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lab, Lecture, On-Line

RSR 331L: Radiographic Procedures I Lab

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: Clinical, Lab

RSR 332: Radiographic Procedures II

Credits: 1,2

College: Jefferson College of Health Professions

Schedule Type: Lab, Lecture

RSR 333: Advanced Radiographic Proced

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: Lab, Lecture, On-Line

RSR 341: Radiation Physics & Instrum I

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

RSR 342: Radiography Physics & Instr II

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture

RSR 353: Radiographic Imaging Princ 1**Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, On-Line**RSR 354: Radiographic Imaging Princ II****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**RSR 361: Image Analysis I****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, On-Line**RSR 362: Image Analysis II****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**RSR 371: Clinical Radiography I****Credits:** 4**College:** Jefferson College of Health Professions**Schedule Type:** Clinical**RSR 372: Clinical Radiography II****Credits:** 6**College:** Jefferson College of Health Professions**Schedule Type:** Clinical**RSR 373: Clin Radiography III****Credits:** 8**College:** Jefferson College of Health Professions**Schedule Type:** Clinical**RSR 374: Clinical Radiography IV****Credits:** 6**College:** Jefferson College of Health Professions**Schedule Type:** Clinical**RSR 375: Clinical Radiography V****Credits:** 8**College:** Jefferson College of Health Professions**Schedule Type:** Clinical**RSR 376: Clinical Radiography VI****Credits:** 8**College:** Jefferson College of Health Professions**Schedule Type:** Clinical**RSR 412: Radiographic Pathology I****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, On-Line**RSR 413: Radiographic Pathology II****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**RSR 414: Radiography Capstone****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Independent Study, Lecture, On-Line, Research, Seminar**RSR 471: Radiography Review Seminar****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, On-Line**RSR 499: Radiographic Ind Study****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Independent Study

Rad Sci Vascular Technology (RSV)

RSV 302: Noninvasiv Principles & Proced**Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**RSV 311: Cardiovascular Physiology****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, On-Line**RSV 312: Cardiovascular Pathophysiology****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**RSV 313: Vascular Pathophysiology****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**RSV 321: Pat Care & Serv in Diag Imag****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Lecture/On-Line, On-Line**RSV 322: Cardiovascular Pharmacology****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**RSV 323: Patient Care & Serv in Diag Im****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Lecture/On-Line, On-Line**RSV 331: Cardiac Procedures I****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture/Lab**RSV 332: Cardiac Procedures II****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**RSV 335: Vascular Procedures I****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lab, Lecture**RSV 336: Vascular Procedures II****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lab, Lecture/Lab**RSV 338: Invasive Procedures I****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture

RSV 339: Invasive Procedures II

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture/Lab

RSV 347: Invasive Instrumentation

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: Lecture

RSV 351: Cardiac Principles I

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

RSV 352: Cardiac Principles II

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

RSV 353: Vascular Principles I

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

RSV 354: Vascular Principles II

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture

RSV 357: Invasive Principles I

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

RSV 358: Invasive Principles II

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

RSV 376: Clinical Vascular Sonog VI

Credits: 8

College: Jefferson College of Health Professions

Schedule Type: Clinical

RSV 400: Ultrasound Physics I

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture, Lecture/On-Line, On-Line

RSV 401: Vascular Anatomy

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

RSV 403: Ultrasound Physics II

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture, Lecture/Lab

RSV 411: Clinical Cardiac I

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Clinical

RSV 412: Clinical Cardiac II

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Clinical

RSV 413: Clinical Cardiac III

Credits: 4

College: Jefferson College of Health Professions

Schedule Type: Lecture

RSV 414: Clinical Cardiac IV

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Clinical

RSV 415: Clinical Cardiac V

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Clinical

RSV 416: Clinical Cardiac VI

Credits: 8

College: Jefferson College of Health Professions

Schedule Type: Clinical

RSV 421: Clinical Vascular I

Credits: 6

College: Jefferson College of Health Professions

Schedule Type: Clinical

RSV 422: Clinical Vascular II

Credits: 6

College: Jefferson College of Health Professions

Schedule Type: Clinical

RSV 423: Clinical Vascular III

Credits: 8

College: Jefferson College of Health Professions

Schedule Type: Clinical

RSV 424: Clinical Vascular IV

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Clinical

RSV 431: Clinical Invasive I

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Clinical

RSV 432: Clinical Invasive II

Credits: 6

College: Jefferson College of Health Professions

Schedule Type: Clinical

RSV 433: Clinical Invasive III

Credits: 4

College: Jefferson College of Health Professions

Schedule Type: Clinical

RSV 481: Cardiac Review Seminar

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture

RSV 482: Vascular Review Seminar

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture, Lecture/On-Line, On-Line

RSV 483: Invasive Review Seminar

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Seminar

RSV 491: Spec Topics in Cardiac Sonog**Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**RSV 493: Spec Topics in Vascular Tech****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**RSV 495: Special Topics in Invasive****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**RSV 499: Cardiovascular Ind Study****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Independent Study

Radiologic Science (RS)

RS 311: Cardiovascular Physiology**Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**RS 312: Cardiovascular Pathophysiology****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**RS 313: Radiobiology & Health Physics****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**RS 321: Patient Care Med & Ima Rad Onc****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**RS 322: Cardiovascular Pharmacology****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**RS 342: Radio Physics & Instrument II****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**RS 400: Ultrasound Physics I****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**RS 401: Cross Sectional Anatomy I****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**RS 402: Cross Sectional Anatomy II****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**RS 403: Ultrasound Physics II****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**RS 405: Obstetrical Sonography****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**RS 415: Clinical Radiation Oncology****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Clinical**RS 437: Intro to Rad Oncol & Pat. Care****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**RS 439: Radiation Protection****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**RS 451: Digital Imaging****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture

Respiratory Therapy (RESP)

RESP 299: RRT Credential**Credits:** 99**College:** Jefferson College of Health Professions**Schedule Type:** Transfer Credit**RESP 300: Orient to Resp Therapy****Credits:** 0**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Lecture/On-Line, On-Line**RESP 301: Cardiopulmonary A&P****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Lecture/On-Line, On-Line**RESP 303: Pulm Function Test w/ Lab****Credits:** 4**College:** Jefferson College of Health Professions**Schedule Type:** Lab, Lecture/Lab, Lab/Lecture/Online, Lecture/On-Line, Online Lab**RESP 305: Resp Care Equip & Tech w/ Lab****Credits:** 4**College:** Jefferson College of Health Professions**Schedule Type:** Lab, Lecture/Lab, Lecture/On-Line, Online Lab**RESP 307: Respiratory Pharmacology****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Lecture/On-Line, On-Line**RESP 309: Clinical Prac I - Intro to RT****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, On-Line, Practicum

RESP 311: Intro to Mechanic Venti w/ Lab

Credits: 4

College: Jefferson College of Health Professions

Schedule Type: Lab, Online Lab, On-Line

RESP 315: Neonatal / Ped Resp Care w/ Lab

Credits: 4

College: Jefferson College of Health Professions

Schedule Type: Lecture/Lab, Online Lab, On-Line

RESP 317: Resp Care Special Population

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture/Lab, Online Lab, On-Line

RESP 319: Clinical Practicum II

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Clinical, Lecture, Lecture/On-Line, On-Line

RESP 321: Advance Ventilator Mgmt w/ Lab

Credits: 4

College: Jefferson College of Health Professions

Schedule Type: Lecture, Lecture/Lab, Lecture/On-Line, Online Lab

RESP 351: Advanced Critical Care

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: On-Line

RESP 353: Advanced Pulmonary Physiology

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: On-Line

RESP 355: Adv Neonatal / Pedia Resp Care

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture/Lab, Online Lab, On-Line

RESP 361: Advanced Cardiopulmo Support

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture/On-Line, On-Line

RESP 401: Critical Care

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: On-Line

RESP 403: Clinical Practicum III

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Clinical, Lab, Lecture, Lecture/Lab

RESP 405: Pulmonary Disease Management

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Didactic, On-Line

RESP 407: Funda of Resp Care Research

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Didactic, On-Line

RESP 409: Current Issues in Resp Care

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: On-Line

RESP 411: Clinical Practicum IV

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lab, Lecture, Lecture/Lab

RESP 413: Prep Exam Course

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: On-Line

RESP 415: Teach and Learn in Resp Care

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: On-Line

RESP 417: Leadership & Mgmt in Resp Care

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: On-Line

Science (SCI)

SCI 1XX: Science Placeholder

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

SCI 2XX: Science Placeholder

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

SCI 3XX: Designated Science Elective

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

SCI 101: Environmental Science

Environmental Science is the study of how humans and the natural environment interact. Critical issues that affect our daily lives such as clean drinking water, urban renewal, energy availability, pesticides, global warming, acid rain and recycling are explored from social, ecological, chemical and political perspectives. Students will tackle a real-life environmental problem in a professional manner using critical thinking and analytical skills, library research skills, teamwork and presentation skills.

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

SCI 101AC: Environmental Science

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

SCI 102: Exploring Science

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lab, Lecture

SCI 106: Biology for Design

Biology for Design: From biological adaptation to biomimetic design. The goal of this course is to increase the sophistication of design, engineering, business, and other students regarding how design manifests itself in nature as biological adaptation, and to use that knowledge as a launching pad for thinking about biomimetic design. Biomimicry is a hot topic in architecture and design. Work in this field is usually done by designers working in collaboration with biologists who are highly specialized in a particular area, often plant or animal physiology. However, there are certain conceptual underpinnings pertaining to design and adaptation in nature that designers are often lacking that will prepare them for further exploration of this field. The course consists of two major units, the first focusing on the biology of adaptation from an evolutionary and ecological perspective. The second section consists of a survey of biomimetic design and how biomimicry has been employed to solve a range of design problems in architecture, materials science, systems design, and technology.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture**SCI 108X: Sustainability & Eco-Innovation****Credits:** 3**College:** School of Design & Engineering**Schedule Type:** Lecture/On-Line**SCI 109: Systems Thinking & Sustainability**

The field of sustainability will be surveyed using the lens of Systems Thinking. Students will be introduced to the rate and scale of environmental impacts resulting from climate change, our industrial food system, and waste accumulation in linear models of production, with case studies considered from multiple perspectives and disciplines. Students will develop systems models to identify key feedbacks and interactions among factors. A final team-based inquiry-driven project will involve analysis of a focal area of choice, to characterize sustainability challenges and opportunities for focused interventions, with consideration of social equity dimensions and model limitations.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture**SCI 110: Landscape Ecology**

Landscape Ecology combines the spatial approach of the planner and designer with the functional approach of the ecologist. As a field it is an integrative and multidisciplinary science that combines geology, botany, zoology and human settlements at the "landscape" scale. For this course the focus will be various land use scales, i.e., the block, neighborhood, city, and region and how ecological processes function at each scale. Students learn the key principles of landscape ecology and then how to apply them to preservation, conservation, planning and the design process.

Credits: 1**College:** Jefferson Coll of Architecture & Built Environment**Corequisites:** SCI 110L**Schedule Type:** Lab, Lecture, Lecture/Lab**SCI 110L: Landscape Ecology Lab**

Landscape Ecology combines the spatial approach of the planner and designer with the functional approach of the ecologist. As a field it is an integrative and multidisciplinary science that combines geology, botany, zoology and human settlements at the "landscape" scale. For this course the focus will be various land use scales, i.e., the block, neighborhood, city, and region and how ecological processes function at each scale. Students learn the key principles of landscape ecology and then how to apply them to preservation, conservation, planning and the design process.

Credits: 2**College:** Jefferson Coll of Architecture & Built Environment**Corequisites:** SCI 110**Schedule Type:** Lecture/Lab**SCI 112: Materials Selection****Credits:** 3**College:** School of Design & Engineering**Schedule Type:** Lecture**SCI 198: Sciences I****Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**SCI 199: Sciences II****Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**SCI 200: Intro to Sci Research Methods**

What does it mean to conduct research? What are the distinct stages of the research process? What are the requirements of modern scientific research? How do you analyze a scientific article? This course will teach you to conduct research in accordance with scientific methodology. You'll learn to critically review scientific literature, and to design and conduct scientific experiments. The course will help you to develop the core skill sets required in any research setting. Topics in scientific communication and data analysis will also be discussed.

Credits: 1**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture**SCI 300: Basic Pharmacology**

This course introduces the student to the basic principles of pharmacology including pharmacokinetics and pharmacodynamics. The course will cover frequently prescribed medications, their uses, actions and common side effects. The student will learn about the various drug classification systems, as well as the effects of those drug classes on specific patient populations, and the process of preventing medication errors deriving from the use of pharmacologic agents.

Credits: 3**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture

SCI 381: Independent Study in Science

Students interested in pursuing independent study in science must submit a proposal to the academic associate dean of undergraduate programs in the College of Science, Health and the Liberal Arts for approval at least two weeks before pre-registration. Detailed guidelines for development of the proposal may be obtained from the College. See "Independent Study" in "University Academic Policies and Procedures: Common Academic Policies for All Students."

Credits: 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** By Appointment - 1 student, Independent Study**SCI 382: Independent Study in Science****Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Independent Study**SCI 399: Selected Topics Abroad in Sci****Credits:** 4**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lab, Lecture**SCI 402: Science Seminar**

This communication intensive course covers recent advances in biological, physical, and medical sciences by way of presentation, journal reviews, and discussions involve both students and invited faculty. This course is designed to sharpen students' critical thinking skills through evaluation of modern scientific discoveries and analysis of their impact on society and humanity as a whole. Integration of knowledge and ideas from various sources is required. [Writing Intensive]

Credits: 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** By Appointment - 1 student, Hybrid, Lecture

SDE Interdisciplinary Courses (SDE)

SDE 307: Design of Play**Credits:** 3**College:** School of Design & Engineering**Schedule Type:** Lecture**SDE 350: Surface Imaging Dsgn Essential****Credits:** 3**College:** School of Design & Engineering**Schedule Type:** By Appointment, Lecture**SDE 370: SDE Special Topics**

This is an upper-level course designed to take advantage of resident/adjunct/visiting faculty members' expertise or a special focus wanted by the School for one or two terms. These courses might provide an in-depth treatment of recent advances in subjects of current interest in a given field whose subject matter is not necessarily needed to be offered long term. A specific "topic" may be delivered a maximum of two terms.

Credits: 0.5**College:** School of Design & Engineering**Schedule Type:** Lecture**SDE 371: SDE Special Topics**

This is an upper-level course designed to take advantage of resident/adjunct/visiting faculty members' expertise or a special focus wanted by the School for one or two terms. These courses might provide an in-depth treatment of recent advances in subjects of current interest in a given field whose subject matter is not necessarily needed to be offered long term. A specific "topic" may be delivered a maximum of two terms.

Credits: 1**College:** School of Design & Engineering**Schedule Type:** By Appointment - 1 student, By Appointment, Independent Study, Lecture**SDE 373: SDE Special Topics**

This is an upper-level course designed to take advantage of resident/adjunct/visiting faculty members' expertise or a special focus wanted by the School for one or two terms. These courses might provide an in-depth treatment of recent advances in subjects of current interest in a given field whose subject matter is not necessarily needed to be offered long term. A specific "topic" may be delivered a maximum of two terms.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** By Appointment - 1 student, Hybrid, Independent Study, Lecture, Lecture/Studio Combination, Studio**SDE 374: SDE Special Topics**

This is an upper-level course designed to take advantage of resident/adjunct/visiting faculty members' expertise or a special focus wanted by the School for one or two terms. These courses might provide an in-depth treatment of recent advances in subjects of current interest in a given field whose subject matter is not necessarily needed to be offered long term. A specific "topic" may be delivered a maximum of two terms.

Credits: 4**College:** School of Design & Engineering**Schedule Type:** Independent Study, Lecture, On-Line**SDE 376: SDE Special Topics**

This is an upper-level course designed to take advantage of resident/adjunct/visiting faculty members' expertise or a special focus wanted by the School for one or two terms. These courses might provide an in-depth treatment of recent advances in subjects of current interest in a given field whose subject matter is not necessarily needed to be offered long term. A specific "topic" may be delivered a maximum of two terms.

Credits: 6**College:** School of Design & Engineering**Schedule Type:** Independent Study, Lecture**SDE 380: SDE Independent Study****Credits:** 0.5**College:** School of Design & Engineering**Schedule Type:** Independent Study**SDE 381: SDE Independent Study****Credits:** 1**College:** School of Design & Engineering**Schedule Type:** By Appointment - 1 student, Independent Study**SDE 383: SDE Independent Study****Credits:** 3**College:** School of Design & Engineering**Schedule Type:** Independent Study**SDE 386: SDE Independent Study****Credits:** 6**College:** School of Design & Engineering**Schedule Type:** Independent Study

Service (SERV)

SERV 101: Serv Learning in Philadelph

Through the completion of a 12-hour service project, online journaling, attending seven class meetings, and participation in a service-learning showcase, students will serve the greater Philadelphia community in an area of interest and explore the reciprocal nature and responsibility of citizenship for the individual and community. This course may be taken in place of the two-course physical education requirement, and it may be taken an additional three times for free elective credits.

Credits: 1

College: Undefined College

Schedule Type: By Appointment - 1 student, Independent Study, Lab, Lecture

SERV 102: Serv Learning Outside Philadel

Through the completion of at least 10 hours of a service project, online journaling, attending at least 4 hours of class meetings, and participation in a culminating service-learning showcase, students will serve people in need and explore the reciprocal nature and responsibility of citizenship for the individual and community. SERVE 102 is a study away course that will be offered in various destinations in the United States and abroad. This course may be taken in place of the two-course physical education requirement, and it may be taken an additional three times for free elective credits. As off-campus study is a component of the course, a GPA of 2.5 is required.

Credits: 1

College: Undefined College

Schedule Type: Lab

Social Sciences (SOSC)

SOSC 198: Social Science I

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

SOSC 199: Social Science II

Credits: 0.5-6

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

SOSC 201: Class,Gender&Race in Wrld Soc

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: WRIT 101 and (HIST 114 or HIST 198 or HIST 199 or DBTU 198 or DBTU 114 or AMST 114) [Min Grade: D]

Schedule Type: Lecture

SOSC 204: Personality and World Cultures

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: WRIT 101 and (HIST 112 or HIST 113 or HIST 114 or HIST 198 or HIST 199 or AMST 114) [Min Grade: D]

Schedule Type: Lecture

SOSC 208: The Individual & Global Env

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: WRIT 101 and (HIST 112 or HIST 113 or HIST 114 or HIST 198 or HIST 199 or AMST 114) [Min Grade: D]

Schedule Type: Lecture

SOSC 211: Glob. Econ:Power, Poverty & P

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: WRIT 101 and (HIST 114 or HIST 198 or HIST 199 or DBTU 114 or DBTU 198 or AMST 114) [Min Grade: D]

Schedule Type: Lecture

SOSC 225: Global Politics

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: WRIT 101 and (HIST 114 or HIST 198 or HIST 199 or DBTU 114 or DBTU 198 or AMST 114) [Min Grade: D]

Schedule Type: Lecture

SOSC 310: Social Sci of the Workplace

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture, On-Line

Sociology (Online) (SOCX)

SOCX 101: Principles of Sociology

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: On-Line

SOCX 310: Soc Sci of Workplace

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: On-Line

Sociology (SOC)

SOC 101: Introduction to Sociology

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

SOC 198: Social Sci Gen Requirement

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

SOC 302: Introduction to Group Dynamics

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture, Lecture/On-Line, On-Line

SOC 310: Soc Sci of Workplace

This General Education Core course examines the contemporary world of work using analytic tools from a variety of disciplines, including sociology, psychology, and anthropology. Key themes include: the social organization of work, contemporary changes in occupations and professions, technology and the information age, the impact of globalization on work, the role of class, gender, race and ethnicity in shaping work experiences and worker identities, and the relationship between work and family. Students learn about basic social science research techniques, practice interpreting data and thinking critically about contemporary work issues, and develop their own arguments about the world of work.

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture, On-Line

SOC 401: Sociology of Health**Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture

Spanish (SPAN)

SPAN 101: Beginning Spanish I

A beginner's course designed for students with very little or no knowledge of the language. The focus is on basic oral expression, listening comprehension and acquiring simple reading and writing skills, so that students can gain confidence in the language and to begin to have conversations. The course will also develop cultural understanding, a key element to language learning, through the analysis of authentic visual media, written materials and cross-cultural interactions.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture, On-Line**SPAN 102: Beginning Spanish II**

A beginner's course designed for students who have completed one semester of college-level language or the equivalent. The focus is on oral expression, listening comprehension and the acquisition of simple reading and writing skills, so that students can gain confidence in the language and conduct conversations and other social interactions in the language with some level of ease. The course will also develop cultural understanding, a key element to language learning, through the analysis of authentic visual media, written materials and cross-cultural interactions.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** SPAN 101**Schedule Type:** Lecture, On-Line**SPAN 110: Medical Spanish**

Medical Spanish is a second-semester course designed for students to gain conversational competence to communicate effectively at a basic level with Spanish-speaking patients in a medical setting. The course focuses on practical vocabulary, grammar, idiomatic expressions, medical terminology as well as developing students' oral communication skills. A main component of the class is the focus on cultural issues relevant to Spanish-speaking patients and particular health concerns relating to the Hispanic community in the U.S.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**SPAN 201: Intermediate Spanish I**

A beginner's course designed for students who have completed two semesters of college-level language or the equivalent. The focus is on advancing oral expression, listening comprehension and the development of reading and writing skills, so that students can gain confidence and express themselves fluidly entirely in the target language. The course will also develop cultural understanding, a key element to language learning, through the analysis of authentic visual media, written materials and cross-cultural interactions.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**SPAN 202: Intermediate Spanish II****Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**SPAN 210: Intermediate Medical Spanish**

Intermediate Medical Spanish is a third-semester elementary-intermediate Spanish course designed for students to gain conversational competence to communicate effectively with Spanish-speaking patients in a medical setting. The course builds on Spanish 202 and focuses on practical vocabulary, grammar idiomatic expressions, medical terminology as well as developing students' oral communication skills. A main component of the class is the focus on cultural issues relevant to Spanish-speaking patients and particular health concerns relating to the Hispanic community in the U.S.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture

Special Topics in Design (DSGN)

DSGN 261: Japanese Craft Production**Credits:** 3**College:** School of Design & Engineering**Schedule Type:** Lecture**DSGN 371: Special Topics:**

Generic Special Topics Description - An upper-level course designed to take advantage of resident/adjunct/visiting faculty members' expertise or a special focus wanted by the School for one or two terms. These courses might provide an in-depth treatment of recent advances in subjects of current interest in a given field whose subject matter is not necessarily needed to be offered long term. A specific "topic" may be delivered a maximum of two term.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture, Studio**DSGN 423: Transfer Credit in Design****Credits:** 3**College:** School of Design & Engineering**Schedule Type:** Lecture

Statistics (Online) (STAX)

STAX 211: Finding & Evaluating Stat Data**Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** On-Line

Statistics (STAT)

STAT 201: Introduction to Statistics

Descriptive statistical measures and probability theory are combined to provide the basis for statistical decision-making techniques. Areas covered: data presentation; measures of central tendency; measures of variability; basic probability laws, Bayes' theorem; binomial; Poisson; χ^2 and normal distributions; confidence intervals; hypothesis testing.

Credits: 3**College:** School of Business**Prerequisites:** MATH 100 or MATH 101 or MATH 102 or MATH 103 or MATH 111 [Min Grade: D]**Schedule Type:** By Appointment - 1 student, By Appointment, Lecture, On-Line

STAT 202: Applied Business Statistics

Review of sampling distribution, confidence intervals and hypothesis tests for two-samples; simple linear regression, multiple linear regression with emphasis on computer output; one- and two-way analysis of variance; application of the Chi-square statistic; non-parametric statistical techniques.

Credits: 3

College: School of Business

Prerequisites: STAT 201 [Min Grade: D]

Schedule Type: Lecture, On-Line

STAT 211: Finding & Evaluating Stat Data

A Continuing and Professional Studies Core course in data gathering and analysis, focusing on the use of demographic and economic data that inform organizational decision making. Students will learn basic descriptive statistical measures and probability theory and develop an understanding of the basis for statistical decision-making techniques. A variety of resources for gathering data related to demographics, socioeconomic and sociogeographic trends, economics data, and trends in business and industry will be presented. Students will also review and apply a variety of descriptive and/or inferential statistics to make meaning of these data. Students will learn to manipulate data using statistical software.

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: By Appointment - 4 students, Lecture, On-Line

STAT 220: Stats for the Behavioral Sci

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: PSYC 101 [Min Grade: D]

Schedule Type: Lecture

STAT 221: Psych Applications of Stats I

Credits: 3

College: School of Business

Prerequisites: PSYC 101 [Min Grade: D]

Schedule Type: Lecture

Sustainability (SUST)

SUST 3XX: Sustainability Designated Elec

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

SUST 100: Fundamentals of Sustainability

As the gateway to the Environmental Sustainability major, this course introduces students to the core concepts of sustainability theory and practice. Students will explore the ethical principles, social structures, technologies, and political and economic processes necessary for humans to live sustainably in community with each other, other species and our natural environment.

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

SUST 102: Water Resources and the Envir

This course introduces students to different types, amounts, and integrity of water resources on Earth. Through the lens of sustainability, students study the availability and scarcity of types of water, as well as systems that harness them for human use. Topics in the course include water quality, water pollution mitigation, ownership and distribution of water resources, and the legitimacy of water uses. As they explore these issues, students will also learn and apply principles of chemical, geological, and biological science. First offered Spring 2015

Credits: 4

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

SUST 104: The Atmosphere & the Environ.

Human disturbances to the atmosphere include degraded ambient air quality, photochemical smog, the greenhouse effect and climate change, radiative incidence and ozone depletion, air pollution-related health effects and dose-response modeling. This course explores the physical structure and chemical composition of the atmosphere and introduces fundamental concepts of chemistry, including atomic and molecular structures, ions and molecular bonding, stoichiometry, acid/base reactions, and basic reaction thermodynamics.

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

SUST 120: Sustainable Food Chains

This course examines one of the most fundamental sustainability challenges that we will face this century: how to feed 9-10 billion people without depleting the planet's soils, water supplies, oil resources and biodiversity. Sustainable Food Chains explores the environmental impact of modern industrial agriculture and examines alternative approaches to food production that reduce the use of non-renewable resources, respect natural processes, and work in harmony with local ecosystems, communities and economies.

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

SUST 200: Energy Systems & Politics

The rising international demand for fossil fuels, the increasing concerns about dwindling energy reserves and the growing evidence of climate change are combining to accelerate the search for alternative energy sources. This course will analyze the environmental, economic and political dynamics of the existing energy regime, and help students evaluate the potential and drawbacks of possible energy alternatives.

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

SUST 202: Ecological Economics

This course introduces students to general economic theory and how it can be applied to the analysis of sustainability issues. Topics include the economics of sustainable development, cost-benefit analysis related to environmental initiatives, and the evaluation of policies for more sustainable production and consumption.

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

SUST 204: Sustainable Plannin & Land Use

This course examines land use and urban planning questions from the perspective of sustainability. Topics include: "smart" growth/development, wilderness conservation, community activism, environmental justice, brownfield and grayfield redevelopment, greenfield preservation, zoning for mixed-use neighborhoods, mass transit planning, and transit-oriented development (TOD).

Credits: 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**SUST 206: Environmental Policy**

Environmental problems are essentially social, economic and political problems. This course traces the evolution of environmental policy, legislation, and regulations, both in the U.S. and worldwide, including the background and context of environmental policymaking. Students will also examine the substantive problems and political process of environmental movements, and contemporary environmental thought with regard to issues of sustainability and environmental justice.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**SUST 300: Sustainable Tech for Arch**

This course provides students with the skills and vocabularies to converse and enhance their ability to collaborate with professionals. This course is intended as an introduction to sustainable architecture and its technologies that are typically used in practice.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**SUST 302: Life-Cycle Thinkn & Analysis**

Industrial Ecology is the study of how industrial processes affect the environment. Students will learn approaches and tools to evaluate products, processes, and systems in their entire life-cycle, including: material flow analysis, design for environment, input-output analysis, life-cycle assessment, industrial symbiosis, and sustainable consumption. PreRequisites: 2 courses from the Science Group and WRIT 21x

Credits: 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**SUST 303: Global Environmental History****Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**SUST 305: Sustainability Metrics & Repor**

This course teaches metrics and reporting frameworks that support evaluation and communication of sustainability. With an eye toward program analysis and business analytics, the course approaches sustainability challenges as data and metrics problems confronting public officials, citizen groups, private companies, and colleges and universities. It teaches students to design sustainability communications, including isolating factors driving unsustainability, selecting metrics and marshaling data appropriate for goal setting, and forecasting the impact of initiatives intended to improve sustainability. In the final project students apply course skills to communicate sustainability using metrics and reporting. Prerequisites: WRIT-2xx

Credits: 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**SUST 398: Sustainability Designated Elec****Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**SUST 400: Sustainability-Non Westn World**

This course examines sustainability issues in such non-European nations as China, Mexico, Brazil and Ghana. It looks at how local economic and cultural factors help shape sustainability strategies and examines the relationship between economic development and sustainability in a comparative framework.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**SUST 402: Managing Sustainability in Org**

This course answers the question, How can we effectively manage sustainability in organizations? The course uses contemporary readings, research, cases, and student projects to explore current and future approaches to sustainability within the context of management and organizations both within and beyond the traditional management framework of planning, organizing, leading, and controlling.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**SUST 404: Environmental History****Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**SUST 421: Environmental Policy****Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**SUST 497: Capstone Seminar I**

Through study of project management techniques, this course helps students explore environmental problems and identify a problem ripe for solution development. Students then translate sustainability into practice by developing a pilot-scale improvement initiative. Connecting to earlier coursework across the curriculum, this course also asks students to practice integrative thinking and to frame their initiative using one or more lenses in the discourse of sustainability. As part one of a two-course capstone sequence for Environmental Sustainability majors, Capstone I concludes with students producing a plan of action to be implemented and evaluated over the course of the following semester.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**SUST 498: Capstone: Sustainability Analy**

This capstone course for the Environmental Sustainability degree program uses case studies and a real-world project to review and integrate the skills and knowledge developed in the previous courses in the Environmental Sustainability curriculum. Applying the principles of systems thinking and other analytical tools, students solicit, develop, present, and implement a client-based sustainability initiative.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** By Appointment, Lecture

Telehealth (TELH)

TELH 100: Telehealth Facilitator

Credits: 1

College: Institute for Emerging Health Professions

Schedule Type: Lecture, On-Line, Seminar

Test Subject Title (TEST)

TEST 100: Test Course

Credits: 0

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture, On-Line

TEST 101: Training Test Course

Credits: 99

College: Undefined College

Schedule Type: Clinical, Exam, Independent Study, Lecture, On-Line, Practicum

TEST 303: Test Grad 3

Credits: 0

College: Undefined College

Schedule Type: Hybrid

Textile (TEXT)

TEXT 1XX: Transfer Textile

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture

TEXT 3X1: Textile Designated Elective

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture

TEXT 3XX: Textile Designated Elective

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture

TEXT 101: Survey of Textile Industry

Introduction to the language and process flow of fibers through finished products. Topics include fiber classification, formation and variants; spun and filament yarn processing, numbering systems, texturing and novelty yarns; woven, knit and nonwoven fabric formation, processing equipment and basic design elements; printing, dyeing and finishing processes; product evaluation; as well as government legislation related to textiles. A laboratory experience provides support for the lectures.

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture

TEXT 101L: Survey of Textile Industry Lab

Credits: 0

College: School of Design & Engineering

Schedule Type: Lab

TEXT 104: FoundationFiber & Yarn Studies

TEXT-104 Fiber and Yarn Studies This course introduces the basic knowledge of fiber and yarn technology. Included are the proper use of fiber/yarn terms and definitions, the construction parameters of the various fiber and yarn types and detailed analysis of performance properties of each. This information is then used in the proper selection of fibers and yarns for various fabrics and ultimately for various end use products in apparel, household and industrial applications.

Credits: 3

College: School of Design & Engineering

Schedule Type: Lab, Lecture, Lecture/Lab

TEXT 105: Text Des. Studio I: Ideation

This is the introductory studio for undergraduate Textile Design majors. It will introduce concept development (inspiration, ideation, narrative, concept boards), color and trend research, Photoshop and Illustrator, mapping skills, branding and portfolio creation.

Credits: 3

College: School of Design & Engineering

Prerequisites: DRAW 101 and VDES 101 [Min Grade: D]

Schedule Type: Studio

TEXT 113: Yarn

Credits: 4

College: School of Design & Engineering

Prerequisites: TEXT 101 [Min Grade: D]

Schedule Type: Lab, Lecture

TEXT 201: Textile Production I

Credits: 3

College: School of Design & Engineering

Prerequisites: TEXT 101 [Min Grade: D]

Schedule Type: Lab, Lecture

TEXT 204: African Textiles Short Course

Credits: 3

College: School of Design & Engineering

Schedule Type: Lab, Lecture

TEXT 205: Text. Des. Studio II: Fashion

This is the second in a sequence of four studios. This course focuses on creating a line of textiles for fashion apparel incorporating print, knit and woven design. Students will explore designing for the body using illustrative, sculptural, draping and shaping techniques.

Credits: 3

College: School of Design & Engineering

Prerequisites: KNIT 201 and TEXT 105 and WEAV 201 [Min Grade: D]

Schedule Type: Studio

TEXT 206: Text Des Studio III: Interiors

This is the third in a sequence of four studios. This course focuses on creating a line of textiles for home furnishings incorporating print, knit and woven design. Students will explore the aesthetic and technical opportunities of interiors, including the business of supply chain.

Credits: 3

College: School of Design & Engineering

Prerequisites: TEXT 205 [Min Grade: D]

Schedule Type: Studio

TEXT 209: Industrial Fabrics

Credits: 3

College: School of Design & Engineering

Prerequisites: TEXT 307 [Min Grade: D]

Schedule Type: Lecture

TEXT 219: Textiles for Interiors & Arch**Credits:** 3**College:** School of Design & Engineering**Prerequisites:** TEXT 101 [Min Grade: D]**Schedule Type:** Lecture**TEXT 301: Coloring & Finishing****Credits:** 3**College:** School of Design & Engineering**Prerequisites:** TEXT 101 and CHEM 101 [Min Grade: D]**Schedule Type:** Lecture**TEXT 302: Textile Design Management**

The aim of this course is to create an awareness of the factors involved in the process of leadership, innovation and design, and the importance of establishing a strategy, to ensure that the design process is effectively managed to assist in the achievement of organizational goals. At the end of the course, students will be able to: (a) relate the process of design to corporate and product strategy; (b) describe the nature of the tasks undertaken by industrial innovators and designers; (c) prepare a brief for a design project; (d) monitor and evaluate the progress of a design project.

Credits: 3**College:** School of Design & Engineering**Prerequisites:** DECS 208 or DECS 209 [Min Grade: D]**Schedule Type:** Lecture**TEXT 305: Adv Fabric Performance Eval**

The objective evaluation of fabric-mechanical properties influencing hand and performance are explored. Comfort-contributing qualities, such as thermal conductivity and air permeability, are also addressed. The influence of fabric-mechanical properties on formability and seaming is assessed with special attention to their role in automated assembly.

Credits: 3**College:** School of Design & Engineering**Prerequisites:** TEXT 307 or TEXT 331 [Min Grade: D]**Schedule Type:** Lab, Lecture**TEXT 306: Text Des Studio IV: Performanc**

This is the final course in a sequence of four studios. This course enables students to create textiles for contract furnishings, automotive interiors, high performance apparel or smart textile applications. The studio emphasizes the marriage of performance characteristics and aesthetics, with a focus on fitness for use.

Credits: 3**College:** School of Design & Engineering**Prerequisites:** TEXT 206 [Min Grade: D]**Schedule Type:** Lecture, Studio**TEXT 307: Textile Materials**

The interrelationship of fiber selection, yarn processing, fabrication and finishing parameters is used to predict and measure fabric performance for specific end uses. A laboratory experience in textile product evaluation provides practical application of theory. The impact of textile-related government regulations is also emphasized.

Credits: 4**College:** School of Design & Engineering**Prerequisites:** TEXT 101 or TEXT 104 [Min Grade: D]**Schedule Type:** Lab, Lecture, Lecture/Lab**TEXT 313: Textile Costing****Credits:** 3**College:** School of Design & Engineering**Prerequisites:** WEAV 201 and KNIT 201 [Min Grade: D]**Schedule Type:** Lecture**TEXT 314: European Textile Printing**

A two-week study tour in the textile printing areas of France, Switzerland and Northern Italy introduces Textile Design and Engineering Technology majors to the expertise of important European printers, screen engravers and studios in the areas of printed textile design, style, color and printing technology. Visits to the two important French historic textile museums and other related textile plants are also included.

Credits: 3**College:** School of Design & Engineering**Prerequisites:** PRNT 315 or PRNT 305 or PRNT 301 [Min Grade: D]**Schedule Type:** Study Abroad**TEXT 315: Interior Fabric Performance****Credits:** 3**College:** School of Design & Engineering**Prerequisites:** TEXT 307 [Min Grade: D]**Schedule Type:** Lab, Lecture**TEXT 316: Textile Quality Management****Credits:** 3**College:** School of Design & Engineering**Schedule Type:** Lecture**TEXT 317: Textile Production Control****Credits:** 3**College:** School of Design & Engineering**Prerequisites:** WEAV 201 and KNIT 201 [Min Grade: D]**Schedule Type:** Lecture**TEXT 321: Nonwovens**

The methods of web formation, bonding, end-use and market potential for nonwovens are investigated. In the laboratory, dry-laid and wet-laid nonwovens are manufactured and later evaluated in the testing laboratory for their unique characteristics.

Credits: 3**College:** School of Design & Engineering**Prerequisites:** TEXT 101 or TEXT 104 [Min Grade: D]**Schedule Type:** Lab, Lecture, Lecture/Lab**TEXT 325: Fibrous Composite Materials****Credits:** 3**College:** School of Design & Engineering**Prerequisites:** MATH 112 and ENGR 215 [Min Grade: D]**Schedule Type:** Lab, Lecture**TEXT 331: Apparel Fabric Performance**

The course focuses upon the dependent relationship of the raw materials, manufacturing processes and finishing techniques that influence the actual performance of apparel products. This will enable students to evaluate a garment's suitability for a specific end use when any fabric variable is altered or when a product's construction and composition is examined. Federally mandated and voluntary labeling requirements will be emphasized. This course cannot be taken for credit by students who have taken TEXT-307.

Credits: 3**College:** School of Design & Engineering**Prerequisites:** TEXT 101 [Min Grade: D]**Schedule Type:** Lecture**TEXT 335: Nonwovens Fabrication & Design****Credits:** 3**College:** School of Design & Engineering**Schedule Type:** Lab, Lecture

TEXT 371: Special Topics in Textiles**Credits:** 3**College:** School of Design & Engineering**Schedule Type:** Lecture**TEXT 381: Indep Study in Textiles I**

For details, see description of Independent Study in "University Academic Policies and Procedures: Common Academic Policies for All Students."

Permission required. See appropriate form online at the University Registrar's webpage <http://www.philau.edu/registrar/> for more information.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Independent Study**TEXT 382: Indep Study in Textiles II****Credits:** 3**College:** School of Design & Engineering**Schedule Type:** Independent Study**TEXT 391: Textile Design Research**

This course will focus on uses of various design resources such as museums, market information, color forecasts, trade shows, nature and current events to generate design ideas suitable for the student's concentration area. Active research will result in a written and illustrated sketchbook of ideas to be used in advanced studio course projects, as well as portfolio-suitable drawings and paintings.

Credits: 3**College:** School of Design & Engineering**Prerequisites:** DRAW 303 [Min Grade: D]**Schedule Type:** Lecture, Lecture/Studio Combination, Studio**TEXT 398: Textile Designated Elective****Credits:** 3**College:** School of Design & Engineering**Schedule Type:** Lecture**TEXT 411: Textile Industry Issues**

Seminars will expose students to diverse views, as well as enable them to discuss broad issues that cut across several disciplines. New technology and processes, business ethics, industry forecasting and marketing innovations, as well as career information, are effectively presented in this format. One credit of Textile/Apparel Industry Issues is required for TD, TET, FD and FIM majors.

Credits: 1**College:** School of Design & Engineering**Schedule Type:** By Appointment - 1 student, By Appointment, Hybrid, Lecture, On-Line**TEXT 487: Textile Eng Tech SR Proj****Credits:** 4**College:** School of Design & Engineering**Prerequisites:** WRIT 211 or WRIT 215 or WRIT 217 [Min Grade: D]**Schedule Type:** Lecture**TEXT 487N: Capstone in Textile Mat. Tech**

Design, development, manufacturing, research and other thought-provoking problems are presented. Students will work in teams to analyze information/data on numerous textile- or apparel-related problems. The final project will reflect the work previously conducted in the TMT Option and will constitute the final submission to each student's digital portfolio.

Credits: 6**College:** School of Design & Engineering**Prerequisites:** (WRIT 211 or WRIT 215 or WRIT 217 or WRIT 201 or WRIT 202) and (KNIT 205 and WEAV 301) and (TEXC 202 or TExc 242) [Min Grade: D]**Schedule Type:** By Appointment - 2 students, By Appointment, Lab, Lecture, Lecture/Lab**TEXT 489: Textile Design Senior Seminar**

The capstone course for students within the Textile Design major during which the students will develop a professional portfolio in actual and digital formats and refine work for their final exhibition. Students' individual interests will guide market research and the resultant development of targeted lists of potential employers. Resumes, cover letters and promotional packets will be developed during the course of the semester.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture**TEXT 490: Textile Design Capstone 1**

This is the first course of the two-course capstone sequence. Textile Design Capstone students develop projects independently that demonstrate their ability and understanding of textile design theory and practice. In Capstone I, students will discover Textile Design areas of interest through intensive design research and exploration. Resumes, supporting documentation and portfolios will be developed. Prerequisite: TEXT 306 (Textile Design Studio IV) and one Textile Design Designated Elective.

Credits: 3**College:** School of Design & Engineering**Prerequisites:** TEXT 306 Min Grade: D and (KNIT 205 Min Grade: D or KNIT 213 Min Grade: D or KNIT 307 Min Grade: D or KNIT 326 Min Grade: D or PRNT 301 Min Grade: D or PRNT 315 Min Grade: D or PRNT 331 Min Grade: D or SDE 350 Min Grade: D or TXD 777 Min Grade: C or WEAV 226 Min Grade: D or WEAV 301 Min Grade: D or WEAV 307 Min Grade: D or WEAV 327 Min Grade: D)**Schedule Type:** Lecture, Studio

TEXT 491: Textile Design Capstone 2

This is the second course of the two-course capstone sequence. Building on the research and design exploration of Textile Design Capstone I, students will create a resolved collection that is trend-right, market-ready. The capstone collection will result in a culminating exhibit, a final portfolio in actual and digital formats and supporting documentation. Prerequisite: TEXT 4XX (Textile Design Capstone 1) and two Textile Design Designated Electives.

Credits: 3**College:** School of Design & Engineering

Prerequisites: TEXT 490 Min Grade: D and (KNIT 205 Min Grade: D or KNIT 213 Min Grade: D or KNIT 307 Min Grade: D or KNIT 326 Min Grade: D or PRNT 301 Min Grade: D or PRNT 315 Min Grade: D or PRNT 331 Min Grade: D or SDE 350 Min Grade: D or TXD 777 Min Grade: C or WEAV 226 Min Grade: D or WEAV 301 Min Grade: D or WEAV 307 Min Grade: D or WEAV 327 Min Grade: D) and (KNIT 205 Min Grade: D or KNIT 213 Min Grade: D or KNIT 307 Min Grade: D or KNIT 326 Min Grade: D or PRNT 301 Min Grade: D or PRNT 315 Min Grade: D or PRNT 331 Min Grade: D or SDE 350 Min Grade: D or TXD 777 Min Grade: C or WEAV 226 Min Grade: D or WEAV 301 Min Grade: D or WEAV 307 Min Grade: D or WEAV 327 Min Grade: D)

Schedule Type: By Appointment - 1 student, Lecture, Studio**TEXT 499: Textile Design Capstone**

Textile Design Capstone Students develop projects independently and are required to demonstrate ability and understanding of textile design theory, processes and principles. The final project requires topic research, design exploration, development and final professional presentation. Additionally, a resume, culminating portfolio and support materials will be developed.

Credits: 6**College:** School of Design & Engineering**Prerequisites:** PRNT 315 or WEAV 307 or KNIT 326 [Min Grade: D]**Schedule Type:** By Appointment - 1 student, By Appointment, Studio

Textile Chemistry (TEXC)

TEXC 203: Color, Dyeing and Finishing

This course presents an overview of color science and wet processing of fibers, yarns, and fabrics. Included are the preparation, dyeing, and finishing of textiles. Some emphasis is placed on the chemistry and technology involved in these operations. Dyes are studied by their method of application and the primary substrates to which they are applied. Chemical, thermal, and mechanical processes are discussed for both preparation and finishing of fabrics. This course may not be taken for credit by anyone who previously received credit for TEXTCHM242, TXF516 or C501.

Credits: 4**College:** School of Design & Engineering**Prerequisites:** CHEM 101 or (CHEM 103 and CHEM 103L) [Min Grade: D]**Schedule Type:** Lecture, On-Line**TEXC 338: Organic/Textile Chemistry****Credits:** 4**College:** School of Design & Engineering**Prerequisites:** CHEM 103 or CHEM 101 [Min Grade: D]**Schedule Type:** Lab, Lecture

Textile Engineering (TENGE)

TENGE 306: Text Engr I-Lin/Assem/Fib/Yarn**Credits:** 3**College:** School of Design & Engineering**Schedule Type:** By Appointment - 1 student, Lab, Lecture, Lecture/Lab**TENGE 308: Textile Engr II:planar Assemb****Credits:** 3**College:** School of Design & Engineering**Schedule Type:** By Appointment - 1 student, Lab, Lecture**TENGE 310: Textile Engr III:Nonwovens &****Credits:** 3**College:** School of Design & Engineering**Schedule Type:** By Appointment - 1 student, Lab, Lecture**TENGE 320: Textile Engr IV:Adv Fibrous****Credits:** 3**College:** School of Design & Engineering**Schedule Type:** Lab, Lecture

Textual Analysis (ITXA)

ITXA 100: Intro to Textual Analysis**Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**ITXA 100G: Intro Textual Analysis Global****Credits:** 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture

Visual Studies Design (VDES)

VDES 101: Design Essentials

This foundation design course explores the basic elements and principles of 2D and 3D form, and their application in the design process. Line, shape, mass, space, texture, value and color are introduced as fundamental and interrelated components necessary in structuring solutions to problems in design. Students will engage in projects that encourage creative expression in a visual and tactile context, while exploring the interaction of ideas and materials. The course is an introduction to the design process as an integral part of Animation and Digital Media, Textile Design, and Visual Communication Design, and is a prerequisite to those majors.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** By Appointment - 1 student, Lecture, Lecture/Studio Combination, Studio

Visual Studies Drawing (VDRW)

VDRW 101: Visual Studies:Drawing**Credits:** 3**College:** School of Design & Engineering**Schedule Type:** Lecture, Studio

Weaving (WEAV)

WEAV 201: Weave Technology I

The structures and analysis of woven fabrics will be studied utilizing CAD, pick outs and laboratory assignments on industrial equipment. Weave structures will include plain, twills and satins (with their derivatives), color effects, textural effects (cords, piques, etc.) and pile weaves. Fabric will be mathematically analyzed for weight, yarn size, fabric count and yarn crimp to specify fabric structure. Necessary loom controls (draw, chains and reed plans) will be used to relate lectures and laboratory work on dobby looms.

Credits: 3

College: School of Design & Engineering

Prerequisites: TEXT 101 or TEXT 104 [Min Grade: D]

Schedule Type: Lab, Lecture, Lecture/Lab

WEAV 207: Weave Design Studio I

This course focuses on the effects and interactions that yarn, color, texture and structure play in woven design. Working with multi-harness floor looms and dobby looms, students create warps and chains, and weave prototype cloth for various end uses.

Credits: 3

College: School of Design & Engineering

Prerequisites: WEAV 201 [Min Grade: D]

Schedule Type: Lecture, Lecture/Studio Combination, Studio

WEAV 226: Jacquard

The principles and equipment involved in the design and production of Jacquard fabrics are studied. Students analyze, design and produce complex Jacquard fabrics on commercial equipment including computerized design and production systems.

Credits: 4

College: School of Design & Engineering

Prerequisites: WEAV 201 [Min Grade: D]

Schedule Type: Lecture, Lecture/Studio Combination, Studio

WEAV 301: Weave Technology II

The variations, function, auxiliary devices and design characteristics of cam, dobby and Jacquard weaving machines, and the equipment used to support the weaving process are studied; along with relevant calculations regarding time, materials and production of fabrics. The technique required to accurately analyze fabrics for all critical components and methods to design fabrics for specific weight and compact cover, with consideration given to yarn size, texture, fiber type, weave and other fabric parameters, will be learned. Advanced multi-layer weaves will be studied, analyzed and woven.

Credits: 4

College: School of Design & Engineering

Prerequisites: WEAV 201 [Min Grade: D]

Schedule Type: Lab, Lecture, Lecture/Lab

WEAV 307: Weave Design Studio II

The study of elements of woven design is brought to the problems of multi-layered cloth, compound weaves, block designs and other advanced structures. Students use several CAD programs in conjunction with AVL compu-dobbies to increase their design capabilities. Multi-harness floor looms and dobby looms are also used to develop cloth from concept to actuality.

Credits: 3

College: School of Design & Engineering

Prerequisites: TEXT 206 [Min Grade: D]

Schedule Type: Lecture, Lecture/Lab, Lecture/Studio Combination, Studio

WEAV 327: Weave Design Studio III

Through an advanced study in woven-textile design, students develop a comprehensive working knowledge of the process of styling fabric for specific textile markets. Depending on the projects' parameters, students may use AVL compu-dobbies, multi-harness floor looms and/or dobby looms.

Credits: 3

College: School of Design & Engineering

Prerequisites: WEAV 307 [Min Grade: D]

Schedule Type: By Appointment - 1 student, By Appointment, Lecture, Studio

WEAV 401: Introduction to Woven Design

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture, Studio

Writing (WRIT)

WRIT 100: Intro to Academic Writing

Writing 100 teaches writing in the context of reading and thinking about the diversity of American society. The course helps students learn to write and write to learn. In learning to write, students learn to manipulate and negotiate the genres and conventions of academic discourse. In writing to learn, students develop process-based approaches to writing including invention, revision, and reflection.

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

WRIT 100ES: ESL: Writing Seminar I

This course parallels WRIT 101, yet is specifically designed for students whose first language is not English. As does WRIT 101, this course includes reading and discussion about a variety of texts that share a common theme. Writing assignments include at least three expository essays and a library research paper related to the theme. To be placed in the course, students must either pass WRIT 098ES or, after submitting a writing sample, be placed by a designated faculty member.

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

WRIT 100G: Intro to Acad Writing-Global

Writing 100G teaches writing in the context of reading and thinking about the diversity of American society. This course parallels Writing 100 but is designed for students who did not learn English as their first language. As with WRIT 100, its main focus is on using writing as a tool for clarifying thinking, establishing a process-based approach to writing, developing critical reading skills and constructing arguments. Additionally, students will focus on the cultural conventions of academic writing and develop and apply an increasingly complex range of language. Students write both formally and informally and, as with Writing 100, "write to learn." Students must complete the course with a C or better before moving on to Writing 101.

Credits: 3

College: Jefferson College of Humanities & Sciences

Schedule Type: Lecture

WRIT 101: Writing Sem I: Written Comm.

In Writing Seminar I: Written Communication, students develop skills and practices vital to the writing process: reading, synthesizing, outlining, drafting, and revising. Written Communication asks students to anticipate the needs of an audience and create academic arguments to address those needs. To achieve these goals, students will write in a variety of academic genres. Through the theme of "Finding Philadelphia," students analyze both published and student texts. This course is the first in two writing-specific courses at the University, and it helps students develop their Contextual Understanding competency. [Writing Intensive]

Credits: 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture, On-Line**WRIT 101AC: Writing Seminar I: Written Com**

In Writing Seminar I: Written Communication, students develop skills and practices vital to the writing process: reading, synthesizing, outlining, drafting, and revising. Written Communication asks students to anticipate the needs of an audience and create academic arguments to address those needs. To achieve these goals, students will write in a variety of academic genres. Through the theme of "Finding Philadelphia," students analyze both published and student texts. This course is the first in two writing-specific courses at the University, and it helps students develop their Contextual Understanding competency. [Writing Intensive]

Credits: 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture, On-Line**WRIT 101G: Writing Communication-Global**

WRITG-101G is specifically designed for students whose first language is not English. This Global version of Writing Seminar I parallels the content of WRITG-101: students develop skills and practices vital to the writing process: reading, synthesizing, outlining, drafting, and revising. Written Communication asks students to anticipate the needs of an audience and create academic arguments to address those needs. To achieve these goals, students will write in a variety of academic genres. Through the theme of "Finding Philadelphia," students analyze both published and student texts. This course is the first in two writing-specific courses at the University, and it helps students develop their Contextual Understanding competency. May not be taken CR/NC. [Writing Intensive]

Credits: 3**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**WRIT 101S: Writ Sem 1: Intro to Ac Wr Com**

In Writing Seminar 1 Studio: Introduction to Written Communication, students develop skills and practices vital to the writing process: reading, synthesizing, outlining, drafting, and revising. Writing Seminar I asks students to anticipate the needs of an audience and create academic arguments to address those needs. To achieve these goals, students will write in a variety of academic genres and analyze both published and student texts. Though Writing Seminar I, Studio has similar learning goals as Writing I, it moves at a slower pace, requires the writing of four assignments as opposed to five and meets three times a week instead of two. The third class is a studio session that focuses on the conventions of university level writing including: the language of scholarship, critical reading, genre analysis, intensive revision. Students who pass 101S will go directly into WRIT 201.

Credits: 4**College:** Jefferson College of Humanities & Sciences**Schedule Type:** Lecture**WRIT 105: Writing About Workplace Culture****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** By Appointment - 1 student, By Appointment - 3 students, By Appointment - 4 students, Lecture**WRIT 201: Writing Seminar II: Multi Comm**

In Writing Seminar II: Multimedia Communication, students produce collaborative and individual projects to develop critical reading, writing, thinking and researching skills. Through analyses of professional communication, students consider the rhetorical framework and strategies for effective, ethical communication. Student projects include written, oral and visual presentations, with particular emphasis on project management and process as well as the final products of their work.

Credits: 3**College:** Jefferson College of Humanities & Sciences**Prerequisites:** WRIT 101 or WRIT 101G or WRIT 101S [Min Grade: D-]**Schedule Type:** Lecture, On-Line

WRIT 201H: Writ Sem 2: Multimedia Comm

Multimedia Communication, students produce collaborative and individual projects to develop critical reading, writing, thinking and researching skills. Through analyses of professional communication, students consider the rhetorical framework and strategies for effective, ethical communication. Student projects include written, oral and visual presentations, with particular emphasis on project management and process as well as the final products of their work. In the Hallmarks Program, this course helps students develop their Collaboration competency, and it also serves as a Touchstone course in which each student's Hallmarks Pathway is reviewed and assessed at its sophomore-level stage of development. Distinguishing Features of WRIT-201H: This Honors-specific section of Writing Seminar II presents Honors students the opportunity to develop a rigorous, strategic intervention into a local issue of their choosing. Students will not only read about rhetoric as a form of engagement; students will also enact rhetoric as engagement. Further, students will document their interventions and present them to the class. Briefly, this Honors section makes engagement the central organizing principle of the course, and each course module and major project will act as a step toward students' real-world application of the writing and communication strategies discussed throughout. Moreover, this Honors section incorporates readings in classical rhetoric to emphasize enduring rhetorical patterns that both constrain and offer opportunity to actors.

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: WRIT 101 [Min Grade: D]

Schedule Type: Lecture

WRIT 202: Writing Seminar II: Multi Comm

This version of Writing Seminar II introduces new transfer students to the Hallmarks Folio process and guides them in posting artifacts and/or reflections for Hallmark competencies that they developed at other institutions. The course also addresses the other goals of Writing Seminar II to help students advance their Collaboration competency: students produce collaborative and individual projects to develop critical reading, writing, thinking and researching skills. Through analyses of professional communication, students consider the rhetorical framework and strategies for effective, ethical communication. Student projects include written, oral and visual presentations, with particular emphasis on project management and process as well as the final products of their work. First offered Spring 2015 Replaces WRTG-2xx (students who have taken WRTG-2xx should not take this course) [Writing Intensive]

Credits: 4

College: Jefferson College of Humanities & Sciences

Prerequisites: WRIT 101 or WRIT 101G or WRIT 101S [Min Grade: D-]

Schedule Type: Lecture, On-Line

WRIT 211: Writing Seminar II: Business

This course has been designed primarily for students of business. Students focus on critical reading, writing, thinking and researching in print, electronic, observation and interview formats. Students also consider economic, social and political perspectives as applied to workplace communication and their professions. Students produce individual and group projects, including oral and visual presentations, as they focus both on the process as well as the final products of their work.

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: WRIT 101 [Min Grade: D]

Schedule Type: Lecture

WRIT 215: Writing Seminar II: Design

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: WRIT 101 [Min Grade: D]

Schedule Type: Lecture

WRIT 217: WritSem II:SciEngTech&HlthProf

This course has been designed primarily for students of science, engineering, technology, and the health professions. Students focus on critical reading, writing, thinking and researching in print, electronic, observation and interview formats. Students also consider economic, social and political perspectives as applied to workplace communication and their professions. Students produce individual and group projects, including oral and visual presentations, as they focus both on the process as well as the final products of their work.

Credits: 3

College: Jefferson College of Humanities & Sciences

Prerequisites: WRIT 101 and (HIST 112 or HIST 113 or HIST 114 or HIST 198) [Min Grade: D]

Schedule Type: Lecture

Graduate

Graduate

A

- Anatomy (ANAT) (p. 405)
- Applied Health Economics (AHE) (p. 405)
- Architecture & Design Research (ADR) (p. 406)
- Athletic Training (ATP) (p. 407)

B

- Basic Medical Science (BMS) (p. 410)
- Biochemistry & Mol Biol-PhD MS (BI) (p. 410)
- Biology (BIOL) (p. 411)
- Bioprocessing (BP) (p. 411)
- Biotechnology (BT) (p. 412)

C

- CAD Foundation (CADF) (p. 413)
- Cannabinoid Chem & Tox (CCT) (p. 413)
- Cannabinoid Pharmacology (CPY) (p. 413)
- Cannabis & Society (CSO) (p. 413)
- Cannabis Business (CBU) (p. 413)
- Cannabis Medicine (CMD) (p. 414)
- Cannabis Research (CRS) (p. 414)
- Cannabis Science (CSC) (p. 414)
- Cell and Tissue Engineering (TE) (p. 414)
- Cell Biology (CB) (p. 414)
- Chemistry (CHEM) (p. 415)
- Chronic Care Management (CCM) (p. 415)
- Clinical Research (CR) (p. 415)
- Communications (COMM) (p. 416)
- Community & Trauma Counseling (CTC) (p. 416)
- Construction Management (CMGT) (p. 423)

- Couple and Family Therapy (CFTP) (p. 425)
- Cytotechnology (CT) (p. 426)

D

- Developmental Biology (DB) (p. 426)
- Digital Health (DIGH) (p. 427)
- Disaster Medicine Management (DMM) (p. 428)
- Diversity (DIVR) (p. 430)
- Doctor Strategic Leadership (DSL) (p. 430)

E

- Emergency & Disaster Mgmt (EDM) (p. 432)
- Engineering (ENGR) (p. 435)

F

- Fashion Design Management (FDM) (p. 440)
- Forensic Biology (FB) (p. 441)
- Forensic Toxicology (FT) (p. 442)

G

- Genetics (GE) (p. 443)
- Geodesign (GEOD) (p. 443)
- Global Fashion Enter. Foundatn (GFEF) (p. 445)
- Global Fashion Enterprise (GFE) (p. 445)
- Graduate Center (GC) (p. 447)
- Graduate Internship (GRIN) (p. 451)

H

- Health Administration (HLAD) (p. 451)
- Health Care Education (MSED) (p. 451)
- Health Communication Design (HCMD) (p. 451)
- Health Data Science (HDS) (p. 451)
- Health Policy (JCPh) (HPL) (p. 451)
- Health Professions Studies (HPS) (p. 452)
- Health Sci Pop Health (JCPh) (DHS) (p. 453)
- Health Sciences (JCPh) (HSCI) (p. 453)
- Healthcare Quality & Safety (HQS) (p. 453)
- Historic Preservation (MHP) (p. 454)
- Human Genetics (HG) (p. 456)

I

- IMBA Online Program Foundation (IMFX) (p. 457)
- IMBA Program Foundation Course (IMBF) (p. 458)
- Immunology & Microbial Patho (IMP) (p. 458)
- Immunology (IM) (p. 459)
- Industrial /Interactive Dsgn Foundation (IDF) (p. 460)
- Industrial Design (INDD) (p. 461)
- Innovator MBA (IMBA) (p. 462)
- Innovator MBA Online (IMBX) (p. 466)
- Integrative Health Education (IHE) (p. 470)
- Integrative Nutrition (IN) (p. 470)
- Interactive Digital Design (IDD) (p. 470)
- Interdepartmental (MD) (IDPT) (p. 472)

- Interdisciplinary (IDSC) (p. 472)
- Interior Architecture (IARC) (p. 472)
- Interior Architecture Prep (IARP) (p. 474)
- Interprofessional Education (IPE) (p. 475)

J

- Jefferson Interprof. Education (CIPE) (p. 475)
- JeffMD (JMD) (p. 475)

L

- Laboratory Sciences (LS) (p. 475)
- Leadership (LDSP) (p. 477)

M

- Management (MGMT) (p. 478)
- Medical Lab Science (Online) (MLSO) (p. 478)
- Medical Laboratory Science (MLS) (p. 480)
- Medical Physics (MEDP) (p. 481)
- Medical Technology (MT) (p. 482)
- Medicine (MED) (p. 482)
- Microbiology (JCLS) (MI) (p. 482)
- Microbiology (MD) (MICR) (p. 484)
- Midwifery (MIDW) (p. 484)
- Mind-Body Medicine (MBM) (p. 490)

N

- National Student Exchange (NSE) (p. 490)
- Neuroscience (NS) (p. 490)
- Nursing (NU) (p. 491)
- Nutrition (NUTR) (p. 496)

O

- Occupational Therapy (GR) (OCC) (p. 496)
- Occupational Therapy (OT) (p. 500)
- Operational Excellence (OPX) (p. 505)

P

- PA Studies Foundation (PASF) (p. 506)
- Pathology & Cell Biol (JCLS) (PA) (p. 506)
- Perfusion (PER) (p. 507)
- Pharmaceutical Sciences (PSCI) (p. 507)
- Pharmacology (JCLS) (PR) (p. 508)
- Pharmacology (MD) (PHAR) (p. 509)
- Pharmacy (JCP) (PHRM) (p. 509)
- Physical Therapy (PT) (p. 513)
- Physician Assistant (PAST) (p. 517)
- Physiology (JCLS) (PS) (p. 524)
- Population Health (POP) (p. 525)
- Population Health Intelligence (PHI) (p. 526)
- Population Health Pharmacy (PHP) (p. 526)
- Population Health Sciences (PHS) (p. 527)
- Psychology (PSYC) (p. 527)

- Public Health (JCLS) (PH) (p. 527)
- Public Health (JCPH) (PBH) (p. 528)

R

- Rad Sci Cardiac Sonography (RSCS) (p. 530)
- Rad Sci Computed Tomography (RSC) (p. 530)
- Rad Sci CT Certificate (RSCC) (p. 531)
- Rad Sci Inv Cardiovasc Tech (RSI) (p. 531)
- Rad Sci Medical Dosimetry (RSD) (p. 532)
- Rad Sci Nuclear Medicine (RSN) (p. 532)
- Rad Sci PET/CT (RSPC) (p. 532)
- Rad Sci Vascular Technology (RSV) (p. 532)
- Radiologic Science (RS) (p. 532)
- Real Estate (MRE) (p. 533)
- Reg Dietitian Nutritionist (RDN) (p. 535)
- Rehabilitation Sciences (JCRS) (p. 536)

S

- SDE Interdisciplinary Courses (SDE) (p. 536)
- Social Justice (SCJU) (p. 537)
- Special Topics in Design (DSGN) (p. 537)
- Speech-Language Pathology (SLP) (p. 537)
- Stat Analysis Software (CSAS) (p. 538)
- Surface Imaging (MSSI) (p. 539)
- Sustainable Design (SDN) (p. 540)

T

- Tax (TAX) (p. 542)
- Textile (TEXT) (p. 543)
- Textile Design (TXD) (p. 545)
- Textile Foundation (TXF) (p. 547)

U

- Urban Design (GR) (MUD) (p. 548)

Anatomy (ANAT)

ANAT 510: Microscopic Anatomy

Credits: 6

College: Jefferson College of Life Sciences

Schedule Type: Lecture/Lab

ANAT 520: Human Gross Anatomy

Credits: 9

College: Jefferson College of Life Sciences

Schedule Type: Lecture/Lab

ANAT 530: Neuroanatomy

Credits: 4

College: Jefferson College of Life Sciences

Schedule Type: Lecture/Lab

Applied Health Economics (AHE)

AHE 500: US Healthcare Finan & Reimburs

Credits: 3

College: Jefferson College of Population Health

Prerequisites: HPL 500

Schedule Type: Lecture, On-Line

AHE 501: Economics of Health Insurance

Credits: 3

College: Jefferson College of Population Health

Schedule Type: On-Line

AHE 502: Statistics I

Credits: 3

College: Jefferson College of Population Health

Schedule Type: On-Line

AHE 504: Economic Modeling I

Credits: 3

College: Jefferson College of Population Health

Schedule Type: Lecture, On-Line

AHE 505: Statistics II

Credits: 3

College: Jefferson College of Population Health

Prerequisites: AHE 502

Schedule Type: On-Line

AHE 506: SubjectiveOutcomesHealthEval

Credits: 3

College: Jefferson College of Population Health

Schedule Type: Lecture, On-Line, Seminar

AHE 507: Claims-Based AHEOR

Credits: 3

College: Jefferson College of Population Health

Schedule Type: On-Line

AHE 508: Intl Health Tech Assessment

Credits: 3

College: Jefferson College of Population Health

Prerequisites: AHE 506 and AHE 509 and AHE 510 and AHE 512

Schedule Type: On-Line

AHE 509: Epi & Evidnc Outcomes Research

Credits: 3

College: Jefferson College of Population Health

Schedule Type: Lecture, On-Line

AHE 510: Adv Res Meth for Appl Obs Stud

Credits: 3

College: Jefferson College of Population Health

Prerequisites: AHE 502 or PHS 605

Schedule Type: Lecture, On-Line

AHE 512: Economic Modeling II

Credits: 3

College: Jefferson College of Population Health

Prerequisites: (AHE 504)

Schedule Type: Lecture, On-Line

AHE 550: IntroHealthEco&OutcomeResearch

Credits: 3

College: Jefferson College of Population Health

Schedule Type: Lecture, On-Line

AHE 600: Capstone Seminar AHEOR**Credits:** 3**College:** Jefferson College of Population Health**Prerequisites:** AHE 504 and AHE 506 and AHE 509 and AHE 510 and AHE 512 and AHE 514 and HPL 500 and HPL 540 and HPL 520**Schedule Type:** Lecture, On-Line, Seminar**AHE 601: Capstone Project****Credits:** 3**College:** Jefferson College of Population Health**Prerequisites:** AHE 600**Schedule Type:** Lecture, On-Line, Research, Seminar**AHE 650: Capstone Seminar & Project****Credits:** 3**College:** Jefferson College of Population Health**Schedule Type:** On-Line**AHE 651: Capstone Research Project****Credits:** 3**College:** Jefferson College of Population Health**Prerequisites:** AHE 501 and AHE 505 and AHE 506 and AHE 509 and AHE 510 and AHE 512 and HDS 502**Schedule Type:** On-Line, Research**AHE 652: Strat Capstone Portfolio&Pres****Credits:** 3**College:** Jefferson College of Population Health**Prerequisites:** AHE 501 and AHE 505 and AHE 507 and AHE 508**Schedule Type:** On-Line, Research**AHE 655: Capstone Extension****Credits:** 0**College:** Jefferson College of Population Health**Prerequisites:** AHE 651 or AHE 652**Schedule Type:** On-Line**AHE 700: AHEOR Professional Credits****Credits:** 1-99**College:** Jefferson College of Population Health**Schedule Type:** Transfer Credit

Architecture & Design Research (ADR)

ADR 701: Research Theories & Methods 1

This seminar is an in-depth analysis of the methodologies and techniques used to gather, assess, interpret, and evaluate relevant information in developing a research project. Techniques include, among others, historical, archival, ethnographical, experiential, simulational, survey, mapping, statistical, and qualitative analysis methods. Students begin a core literature review to determine key sources within architecture and cognate disciplines relevant to the area of inquiry and research question. Students define the dissertation research topic, draft a research question, expand supporting literature review, and ideas about appropriate methods.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Lecture, Seminar**ADR 702: Research Theories & Methods 2**

This seminar is an in-depth analysis of the methodologies and techniques used to gather, assess, interpret, and evaluate relevant information in developing a research project. Techniques include, among others, historical, archival, ethnographical, experiential, simulational, survey, mapping, statistical, and qualitative analysis methods. Students begin a core literature review to determine key sources within architecture and cognate disciplines relevant to the area of inquiry and research question. Students define the dissertation research topic, draft a research question, expand supporting literature review, and ideas about appropriate methods. (To be first offered Spring 2022) Prerequisites: ADR-7xx Research Theories & Methods 1

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Lecture, Seminar**ADR 895: Doctoral Colloquium**

This seminar course explores various research protocols in doctoral study. Faculty and doctoral students present work in progress, with an emphasis on advanced knowledge and skills in reading, writing, statistics, ethics, and the conduct of research across diverse specialization areas and professional career paths. Typically, advanced doctoral students will lead seminar sessions and engage with and beyond the doctoral student cohort. Pre-requisites: ADR-898 Directed Research Seminar; Co-requisite ADR-900 Dissertation Proposal or Permission by Program Director.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Prerequisites:** ADR 898 [Min Grade: C]**Corequisites:** ADR 900**Schedule Type:** Lecture**ADR 896: Independent Study**

Independent study courses allow a Ph.D. in Architecture and Design Research student to pursue an individually tailored learning experience under the supervision of a faculty member in the Ph.D. in Architecture and Design Research program, or an instructor approved by the Program Director. This course provides students a unique opportunity to work closely with a faculty mentor to study a subject of their own choice that is not delivered within an existing course in a given year. The student must plan the scope and structure of this learning experience in the semester preceding enrollment and present a short proposal to the collaborating faculty member for written approval before the intended semester. The independent study must be approved by Program Director. Students may not enroll in more than one Independent Study with the same professor during a semester.

Credits: 1-6**College:** Jefferson Coll of Architecture & Built Environment**Prerequisites:** ADR 701**Schedule Type:** Independent Study, Lecture**ADR 897: Special Topics**

This course allows exploration of new topics related to strategic areas in the Ph.D. in Architecture and Design Research program that expand or augment existing courses in the graduate catalog. The course incorporates adequate delivery methods and satisfies program learning outcomes supporting doctoral level research. The special topics course has to be approved by the Program Director. Co- or Pre- requisites: Permission by instructor

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Hybrid, Lecture

ADR 898: Directed Research Seminar

This seminar course explores the next steps in the research process. Students design the study in consultation with a primary faculty advisor during the preceding semester to refine a field of inquiry. Depending on the research area the work may involve literature review, hands-on activities, software, and a semester project. The course supports students in defining their research question, and a corresponding methodology. Normally a faculty who may join the dissertation committee will supervise this course. Each student investigates current debates relative to the topic, significant case studies and core literature, in addition to topic-specific research strategies. This course is preparation for the Preliminary Exam in which students must demonstrate overall competency in principles, theory, practices, methodologies, and core literature. Pre-requisites: ADR-702 Research Theories & Methods 2 or Permission by Program Director

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Prerequisites:** ADR 702 [Min Grade: C]**Schedule Type:** Lecture, Seminar**ADR 899: Examination Preparation**

This course is offered as an independent study for doctoral students who have failed their preliminary examination. Students can only take this course once to re-sit their preliminary examination in the following semester. The student works with a preliminary examination committee in this course. Failure of the Preliminary Exam may result in permanent suspension.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Prerequisites:** ADR 898 [Min Grade: C]**Schedule Type:** Hybrid

Athletic Training (ATP)

ATP 600: Emergency Care

This course prepares the athletic training student to respond to medical emergencies and acute conditions in physical activity settings. Through successful completion students will be able to perform lifesaving procedures at the professional rescuer level, practice universal precautions, prevent transmission of disease and become proficient in using automated external defibrillators. Upon successful completion of the course, the students will become Certified Emergency Medical Response Instructors Prerequisite: Admission into the Master of Science in Athletic Training program.

Credits: 4**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lab, Lecture, Lecture/Lab**ATP 601: Curr Concepts in Emer Care- AT****Credits:** 1**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture**ATP 602: Scientific Inquiry & Writing****Credits:** 1**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture**ATP 605: Fundamentals of Athl Training**

This course is designed to introduce students to the profession of Athletic Training. This course provides an introduction to injury prevention, recognition, and treatment strategies. Injury prevention principles, injury classification, and common injuries will be surveyed. Prerequisites: Have met all admission criteria for the Master of Science in Athletic Training Program

Credits: 4**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lab, Lecture, Lecture/Lab**ATP 610: Basics of Rehabilitation**

This course will introduce the student to basic clinical skills and problem-solving abilities to be built upon in future course work. It is designed to introduce the student to hands-on patient care skills in a laboratory setting. These skills include but not limited to: assessment of vital signs; principles of body mechanics; range of motion and manual muscle testing assessment; transfers; assistive device fitting and education; gait assessment and training. The students will also have the opportunity to apply this knowledge immediately during clinical experiences. Prerequisites: Admission into the Master of Science in Athletic Training Program

Credits: 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture**ATP 615: Functional Human Anatomy**

This course provides an in-depth study of musculoskeletal anatomy and function as it applies to human performance and dysfunction. Emphasis will be placed on the study of the structure and functional significance of the human body - with emphasis on neural, musculoskeletal and cardiopulmonary systems. This course will provide an introduction to clinical application of relevant anatomy, with respect to some common conditions seen in the health/medical profession. Prerequisites: "B-" or better in BIO 201, BIO 201L, BIO 202, and BIO 202L. Have met all admission criteria for the Master of Science in Athletic Training program

Credits: 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture**ATP 620: Practicum I**

This course is designed to provide introductory hands-on experience in the field of Athletic Training. Upon completion, the student will have a novice understanding of the recognition, evaluation and treatment of injuries and illnesses. Under the direct supervision of a preceptor, the student will be challenged to transfer knowledge learned didactically and apply it in clinically. A minimum of 250 and maximum of 300 clinical hours is required to earn credit for the class. The student shall not work more than 20 hours/week or greater than 6 days in a row. Prerequisites: Admission to the Master of Science in Athletic Training Program

Credits: 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture, Rotation

ATP 625: Prev, Eval & Treat of Ath Inj I

A systematic approach to orthopedic/sports assessment and rehabilitation will be examined. The upper extremity will be studied in-depth stressing anatomy, neurology, physiology, etiology, pathology, assessment and rehabilitation techniques. This course will also examine the knowledge, skills and values the entry-level Athletic Trainer must possess to plan, implement, document and evaluate the efficacy of therapeutic exercise programs for the rehabilitation and reconditioning of upper extremity injuries and illnesses of athletes and the physically active. Assessment techniques will be presented and discussed in a didactic manner as well as applied through lab experiences.

Credits: 4**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lab, Lecture, Lecture/Lab**ATP 630: Therap Modalities for Ath Train**

This is a comprehensive course in the theory and use of therapeutic modalities in a sports medicine setting. Students will learn about the injury response cycle and healing process and how to incorporate modalities to these processes. The student will have an in-depth understanding of the physiology behind the therapeutic effects. Students will become proficient as far as application, electrode placement, patient set-up and parameters of modalities used in sports medicine. Principles of neurophysiology, pain control, and the electromagnetic and acoustic spectra will be discussed and applied through lab experiences.

Credits: 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lab, Lecture, Lecture/Lab**ATP 635: Human Phys: Exer, Nutri & Perf**

This course provides an in-depth structure/function relationship of the neuromuscular, metabolic, cardiorespiratory and hormonal responses to acute exercise and the physiological adaptations to chronic exercise. Topics include thermoregulation, ergogenic aids, body composition, sport training, growth and development, and aging.

Credits: 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture, Lecture/Lab**ATP 640: Practicum II Athl Injuries I**

This clinical rotation allows for the student to gain more hands-on clinical experience in the profession of Athletic Training outside of the classroom and in the clinical setting. This rotation is designed to provide the athletic training student hands-on experiences with which to understand, recognize, evaluate, and treat athletic injuries and illnesses using the range of skills required of an athletic training professional. Under the supervision of a preceptor, the student will be challenged to transfer knowledge learned didactically and apply it in the clinical setting. Students will be expected to begin to understand and demonstrate the knowledge and skills identified in the Standards as designated by the CAATE and its eight content areas: Evidence-Based Practice; Prevention and Health Promotion; Clinical Examination and Diagnosis; Acute Care of Injury and Illness; Therapeutic Interventions; Psychosocial Strategies and Referral; Healthcare Administration; and Professional Development and Responsibility. A minimum of 250 clinical hours is required to earn credit for the class.

Credits: 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture, Lecture/Lab, On-Line**ATP 645: Motor Contrl & Humn Move Train**

This course guides the study of the principles of motor skill performance and learning and the application of these theories to physical activities, learners and various environments. This course will also examine the structural and mechanical principles involved in human movement and teh contribution of these principles to the efficiency of human movement.

Credits: 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture, Lecture/Lab**ATP 660: Specilty Practicum in Ath Train**

This 6-week clinical rotation allows for student to gain advanced clinical experience in the profession of Athletic Training outside of the classroom and in the clinical setting. This rotation is designed to provide the athletic training student with immersive hands-on experiences with which to understand, recognize, evaluate, and treat NON-athletic and NON-orthopedic injuries and illnesses as required by CAATE standards using a range of skills required of an athletic training professional. Under the supervision of a preceptor, the student will be challenged to transfer knowledge learned didactically and apply it in the clinical setting in an immersive manner. Students will be expected to integrate and apply knowledge and skills identified in the Standards as designated by the CAATE and its eight content areas: Evidence-Based Practice; Prevention and Health Promotion; Clinical Examination and Diagnosis; Acute Care of Injury and Illness; Therapeutic Interventions; Psychosocial Strategies and Referral; Healthcare Administration; and Professional Development and Responsibility. A minimum of 240 and maximum of 420 clinical hours is required to earn credit for the class. The student shall not work more than 70 hours/week and greater than 6 days in a row.

Credits: 2**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture, Rotation**ATP 661: Practicum III Ath Injuries I**

This 8-week full-immersion clinical rotation allows for student to gain advanced clinical experience in the profession of Athletic Training outside of the classroom and in the clinical setting. This rotation is designed to provide the athletic training student with immersive hands-on experiences with which to understand, recognize, evaluate, and treat athletic injuries and illnesses using the range of skills required of an athletic training professional. Under the supervision of a preceptor, the student will be challenged to transfer knowledge learned didactically and apply it in the clinical setting in an immersive manner. Students will be expected to integrate and apply knowledge and skills identified in the Standards as designated by the CAATE and its eight content areas: Evidence-Based Practice; Prevention and Health Promotion; Clinical Examination and Diagnosis; Acute Care of Injury and Illness; Therapeutic Interventions; Psychosocial Strategies and Referral; Healthcare Administration; and Professional Development and Responsibility. A minimum of 320 and maximum of 560 clinical hours is required to earn credit for the class. The student shall not work more than 70 hours/week and greater than 6 days in a row. The schedule is an effort to replicate a full-time certified athletic trainer's employment experience but with weekly work hour limitations.

Credits: 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture, Rotation

ATP 662: Practicum IV

This 8-week full-immersion clinical rotation allows for student to gain advanced clinical experience in the profession of Athletic Training outside of the classroom and in the clinical setting. This rotation is designed to provide the athletic training student with immersive hands-on experiences with which to understand, recognize, evaluate, and treat athletic injuries and illnesses using the range of skills required of an athletic training professional. Under the supervision of a preceptor, the student will be challenged to transfer knowledge learned didactically and apply it in the clinical setting in an immersive manner. Students will be expected to integrate and apply knowledge and skills identified in the Standards as designated by the CAATE and its eight content areas: Evidence-Based Practice; Prevention and Health Promotion; Clinical Examination and Diagnosis; Acute Care of Injury and Illness; Therapeutic Interventions; Psychosocial Strategies and Referral; Healthcare Administration; and Professional Development and Responsibility. A minimum of 320 and maximum of 560 clinical hours is required to earn credit for the class. The student shall not work more than 70 hours/week and greater than 6 days in a row. The schedule is an effort to replicate a full-time certified athletic trainer's employment experience but with weekly work hour limitations.

Credits: 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture, Lecture/Lab, On-Line**ATP 665: Prev, Eval, Treat of Inj II-LowEx**

A systematic approach to orthopedic/sports assessment and rehabilitation will be examined. The lower extremity will be studied in-depth stressing the anatomy, neurology, physiology, etiology, pathology, assessment and rehabilitation techniques. This course will also examine the knowledge, skills and values the entry-level Athletic Trainer must possess to plan, implement, document and evaluate the efficacy of therapeutic exercise programs for the rehabilitation and reconditioning of lower extremity injuries and illnesses of athletes and others involved in physical activity. Assessment techniques will be presented and discussed in a didactic manner as well as applied through lab experiences

Credits: 4**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lab, Lecture, Lecture/Lab**ATP 670: Prev, Eval, Treat of Inj-III-Spn**

A systematic approach to orthopedic/sports assessment and rehabilitation will be examined. The head, neck and spine will be studied in-depth stressing the anatomy, neurology, physiology, etiology, pathology, assessment and rehabilitation techniques. This course will also examine the knowledge, skills and values the entry-level Athletic Trainer must possess to plan, implement, document and evaluate the efficacy of therapeutic exercise programs for the rehabilitation and reconditioning of the head, neck and spine injuries and illnesses of athletes and others involved in physical activity. Assessment techniques will be presented and discussed in a didactic manner as well as applied through lab experiences.

Credits: 4**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lab, Lecture, Lecture/Lab**ATP 675: Strength and Conditioning**

This course includes a functional, scientific approach to the design of strength and conditioning programs. Includes testing protocols used for measuring fitness, body composition, posture, flexibility, muscular strength, power, speed, and endurance. General fitness, wellness, and sports nutrition concepts and dietary supplements will be discussed.

Credits: 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture, Lecture/Lab**ATP 680: Medical & Professional Ethics**

Medical and Professional Ethics Understanding the philosophical principles related to biomedical ethics, patient-practitioner relationships and the role of the physician assistant provider within the health care system are the main topics encompassed in this lecture and discussion seminar course.

Credits: 2**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture**ATP 685: Org & Admin in Ath Training**

Design to educate student on topics that focus on understanding the dynamics of a complex healthcare system with regards to the delivery and management of individualized patient care, Principles of organization and administration of athletic training programs; management of personnel; legal aspects; relation of athletic trainer to athletic programs and sports medicine team.

Credits: 2**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture**ATP 690: Gen Med Conditions & Pharm in AT**

This course provides the student a thorough understanding of injury, illness and/or disease of various body systems; specific understanding of medical diagnostics, interventions (including pharmacology) and participation considerations for the athletic population are addressed. The student will be able to recognize, assess, differentially diagnose, know when to refer and treat different illness/condition in patient populations through various learning modalities including but not limited to lectures, hands on skills, laboratory experiences, and so on.

Credits: 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture**ATP 691: Research-Collaborative Proj I**

This course will give students valuable experience in research design, data collection and/or analysis by playing an integral role in a faculty sponsored research project or collaborating with graduate or undergraduate students from another program on a collaborative project relevant to sport medicine anywhere on campus.

Credits: 1**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture, On-Line**ATP 692: Research-Collaborative Proj II**

This course is a continuation of Research/Collaborative Project. Students will finish their research projects and focus on writing their manuscript for a peer reviewed journal. This course is designed for the student to collaborate with other students/faculty from different departments on campus to complete their projects. Writing intensive.

Credits: 1**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture

ATP 695: Psych Aspects of Injury& Rehab

This course focuses on understanding the psychological factors relative to exercise, injury, inactivity, and rehabilitation following injury. Strategies for identifying problems, intervening, and making referral are presented.

Credits: 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture**ATP 696: Special Topics in Ath Training**

An in-depth study of particular topics, contemporary issues or concerns in Athletic Training. The course will be taught by a specialist(s) in the field related to the topic.

Credits: 2**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture

Basic Medical Science (BMS)

BMS 870: Capstone Project**Credits:** 1-6**College:** Jefferson College of Life Sciences**Schedule Type:** Reseach**BMS 880: Capstone Project****Credits:** 1-6**College:** Jefferson College of Life Sciences**Schedule Type:** Reseach**BMS 890: Capstone Project****Credits:** 1-6**College:** Jefferson College of Life Sciences**Schedule Type:** Reseach

Biochemistry & Mol Biol-PhD MS (BI)

BI 501: Pre-entry Rotation**Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Reseach**BI 510: Medical Biochemistry****Credits:** 10**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture**BI 511: Biochemical Rotation I****Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Lab, Reseach**BI 515: BI I-Archit Bldg Blocks****Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture**BI 516: Topics in Bioinformatics****Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture/Lab**BI 521: Biochemical Rotation II****Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Lab, Reseach**BI 525: Genetic Information Transfer****Credits:** 3**College:** Jefferson College of Life Sciences**Prerequisites:** GC 550B**Schedule Type:** Exam, Lecture, Lecture/On-Line, On-Line**BI 531: Biochemical Rotation III****Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Lab, Reseach**BI 535: BI III-Metabolism****Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture**BI 550: Topics-Medical Biochem****Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture, On-Line**BI 555: Bioanalytical Techniques****Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture/Lab**BI 612: AdvTop Protein Func & Dysfunct****Credits:** 3**College:** Jefferson College of Life Sciences**Prerequisites:** GC 550**Schedule Type:** Lecture, On-Line**BI 613: Adv Top/Genome Reg, Mnt & Rep****Credits:** 2**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture, Lecture/On-Line, On-Line**BI 614: Macromolecular Function****Credits:** 2**College:** Jefferson College of Life Sciences**Prerequisites:** BI 550 or GC 550 or BI 515 or GC 550D**Schedule Type:** Lecture, On-Line**BI 624: Extracell Matr Proteins****Credits:** 2**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture**BI 710: Seminar****Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** On-Line, Seminar**BI 712: Master's Seminar-BCHE****Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** Seminar**BI 715: Current Lit Biochem&MolPharmac****Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture, On-Line, Seminar**BI 720: Seminar****Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** On-Line, Seminar

BI 725: CurrentLit in BI & MPR

Credits: 1

College: Jefferson College of Life Sciences

Schedule Type: Lecture, On-Line, Seminar

BI 730: Seminar

Credits: 1

College: Jefferson College of Life Sciences

Schedule Type: On-Line, Seminar

BI 735: CurrentLit in BI & MPR

Credits: 1

College: Jefferson College of Life Sciences

Schedule Type: Lecture, On-Line, Seminar

BI 810: Laboratory Clerkship

Credits: 1-6

College: Jefferson College of Life Sciences

Schedule Type: Clinical, Independent Study

BI 820: Master's Clerkship-BI

Credits: 1-6

College: Jefferson College of Life Sciences

Schedule Type: Reseach

BI 830: Clerkship - MSBS

Credits: 1-6

College: Jefferson College of Life Sciences

Schedule Type: Clinical, Independent Study, Reseach

BI 840: Capstone Project

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Reseach

BI 870: Research - MSBS

The traditional laboratory research-based MS thesis option requires six (6) credits of research. Students, working under the supervision of a research advisor and a thesis committee, will formulate research questions, record, and analyze the research data. Presentation of completed research will be made by students in a public forum prior graduation. In addition to this traditional completion option of the laboratory or bench-based research path, a new Capstone Option, also requiring six (6) credits is offered which will require independent study and research integrated within a Capstone Project. The culminating Capstone Project will result in a formal scholarly work reflecting integration of the scientific knowledge and technical and management skills learned in the program through didactic course work focused in an area chosen jointly by the student and the Capstone Advisor with the approval of the Program Director. The Capstone Project will be supervised by a Capstone Project Committee. In much the same manner as a traditional laboratory research thesis, the final Capstone Project thesis document will be approved by a Capstone Committee, presented publicly and defended as would a laboratory research thesis.

Credits: 1-6

College: Jefferson College of Life Sciences

Schedule Type: Reseach

BI 880: Master's Research-BI

Credits: 1-6

College: Jefferson College of Life Sciences

Schedule Type: Reseach

BI 890: Research - MSBS

Credits: 1-6

College: Jefferson College of Life Sciences

Schedule Type: Reseach

Biology (BIOL)

Bioprocessing (BP)

BP 601: Bas Engineering for Scientists

Credits: 2

College: School of Design & Engineering

Schedule Type: Lecture

BP 602: Bas Biochem & Bio for Engineer

Credits: 2

College: School of Design & Engineering

Schedule Type: Lecture

BP 603: Intro to Biopharm Processing

Credits: 2

College: School of Design & Engineering

Schedule Type: Lecture

BP 604: Intro to Downstream Unit Oper

Credits: 4

College: School of Design & Engineering

Schedule Type: Lecture/Lab

BP 605: Intro to Upstream Unit Oper

Credits: 4

College: School of Design & Engineering

Schedule Type: Lecture/Lab

BP 606: Intro to Biopharm & Biologics

This master level course is part of the Innovation MBA (iMBA) concentration in Biopharmaceutical Commercialization. It is intended for non-scientists and those who are new to the biopharmaceutical and biologics industries. Through a series of case studies and real-life experiences, the course introduces the history of biopharmaceutical development; beginning with first generation treatments, including insulin, human growth hormones and tissue plasminogen activator, to next generation therapeutic modalities, such as CAR-T cell, gene therapy and novel vaccines. Upon completion of this course, participants will be prepared to engage in high level discussions and decisions across all major functional areas related to the commercialization of products in the biopharmaceutical industry. This course will provide participants with a basic scientific background and the ability to participate and contribute to business-related operations that are critical to expanding areas within biopharma, including proteins and monoclonal antibodies, modern vaccines and cell/gene therapies.

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture, On-Line

BP 607: Biopharm Comm: Strat&Analytics

Commercialization represents the biopharma function that is most visibly tied to overall company health. This function is responsible for bringing drugs to market and overseeing their financial performance. They must work closely with development teams to manage portfolio and pipeline, while also translating successful clinical trials into viable products that are embraced by prescribers and consumers. Interaction with manufacturing is critical as well, as supply chain and demand must be aligned across these functions. Ultimately, if commercialization teams are high-functioning, this translates into strong company performance and investor confidence.

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture, On-Line

BP 608: Biopharm & Bio: Reg & Quality

This course is part of the Innovation MBA (iMBA) concentration in Biopharmaceutical Commercialization and is intended for students that are new to the biopharmaceutical and biologics industries. Through a series of case studies and real-life experiences, the course introduces the various regulatory guidelines (FDA and EMA) which are followed by the pharmaceutical industry for the approval of biopharmaceuticals and biosimilars. The course also highlights the important regulatory and draft FDA guidelines for next generation therapeutic modalities, such as CAR-T cell, gene therapy and novel vaccines. The regulatory guidelines for implementing QbD in biopharmaceutical processes will be introduced.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture, On-Line

Biotechnology (BT)

BT 503: Molecular Prep Techniques**Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lab, Lecture, Lecture/Lab**BT 510: Fundamental Molec Techniques**

Discussion, demonstration and practice of basic molecular techniques including DNA/RNA isolation, restriction digest, gel electrophoresis and blotting techniques. Lecture and laboratory. Co-requisite: BT 303/503

Credits: 4**College:** Jefferson College of Health Professions**Schedule Type:** Lab, Lecture, Lecture/Lab**BT 520: Cell and Tissue Culture**

This course offers basic technique training to handle in vitro cell culture as well as cellular and molecular biological techniques. You will be introduced to the procedures and the underlying scientific principles of cell culture and recombinant protein expression in a variety of cell systems including yeast, insect, and mammalian cell lines. In addition, you will learn techniques to analyze cell phenotype and function (immunohistochemistry, immunofluorescence)

Credits: 4**College:** Jefferson College of Health Professions**Schedule Type:** Lab, Lecture, Lecture/Lab**BT 525: Product Development&Management****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Lecture/On-Line**BT 601: Systems Biology****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**BT 603: Human Genetics****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Lecture/On-Line**BT 605: Appld Microbial Biotechnology****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**BT 606: Intro to Bioinformatics****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Lecture/On-Line**BT 610: Molecular Diagnostic Technique**

Laboratory course introducing the student to clinical/diagnostic applications of molecular and biochemical techniques. Laboratory sessions include discussion, demonstration and hands on practice of: isolation of nucleic acids from biological samples, use of hybridization based assays in diagnostic procedures, preparation of probes, clinical application of PCR and RT-PCR, Western blot analyses, protein truncation test, electrophoretic and microarray analysis of genetic polymorphisms; next gen sequencing and proteomics utilization in diagnosis/prognoses determination of disease. An emphasis will be placed on students learning to follow procedures from the literature. Lecture content will provide students with an introduction to the theory and standards of practice of the molecular diagnostic laboratories as well as molecular pathology as it pertains to the development of diagnostic tests

Credits: 4**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Lecture/Lab**BT 611: Protein Purification & Charact**

Course covers current methods and theories pertaining to fractionation and purification of proteins from cellular and recombinant sources; including ion exchange, affinity, and size-exclusion based methods. Methods of protein analysis are also discussed including various spectroscopic methods: NMR, fluorescence, mass-spectroscopy, and circular dichroism. Current topics in proteomics are discussed including methods for understanding protein-protein and protein-ligand interactions are covered. Applications in clinical, research and pharmaceutical areas will be discussed. Course will have both lecture and hands-on components

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Lecture/Lab**BT 812: Biotechnology Practicum I****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Lecture, Practicum**BT 813: Biotechnology Practicum II****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Lecture, Practicum**BT 814: Biotechnology Practicum III****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Practicum**BT 815: Biotechnology Practicum IV****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Practicum**BT 816: Comprehensive Exam****Credits:** 0**College:** Jefferson College of Health Professions**Schedule Type:** Exam, On-Line, Seminar

CAD Foundation (CADF)

CADF 500: CAD I for Industrial Design

The course introduces students to computer-aided design with a focus on the industrial design processes. In an intuitive fashion, students create and refine designs using a solids-modeling software package. In order to recognize the critical role CAD plays in the development of designs, students will use designs created in design studio courses as the subject matter of the CAD activities. Design-control drawings, three-dimensional rendered drawings and perspective drawings will be the course's output.

Credits: 3

College: School of Design & Engineering

Schedule Type: Lab, Lecture, On-Line

CADF 500N: CAD I for Industrial Design

The course introduces students to computer-aided design with a focus on the industrial design processes. In an intuitive fashion, students create and refine designs using a solids-modeling software package. In order to recognize the critical role CAD plays in the development of designs, students will use designs created in design studio courses as the subject matter of the CAD activities. Design-control drawings, three-dimensional rendered drawings and perspective drawings will be the course's output.

Credits: 3

College: School of Design & Engineering

Schedule Type: Lab, Lecture, Lecture/Lab, On-Line

CADF 501: CAD II Dig Design Techniques

This course will build upon principles introduced in introductory CAD courses. It is primarily a laboratory course in which students will learn to take their early design concepts through to the final presentation using advanced digital design techniques. Students will use multiple digital design software packages across computer platforms with an emphasis on CAID packages such as NURBS modelers and animation software, as well as vector-based, desktop-publishing programs and bitmap-based programs.

Credits: 3

College: School of Design & Engineering

Schedule Type: Lab, Lecture, Lecture/Lab

Cannabinoid Chem & Tox (CCT)

CCT 507: Botany & Chemistry of Cannabis

Credits: 3

College: Institute for Emerging Health Professions

Schedule Type: On-Line

CCT 508: Qual C&A in Med Cnbs Ana & Dis

Credits: 3

College: Institute for Emerging Health Professions

Schedule Type: On-Line

CCT 600: Toxic Analysis & Int of Cannab

Credits: 3

College: Institute for Emerging Health Professions

Prerequisites: CCT 507

Schedule Type: Lecture/On-Line, On-Line

CCT 601: Forensic Analysis of Cannabis

Credits: 3

College: Institute for Emerging Health Professions

Prerequisites: CCT 507

Schedule Type: Lecture/On-Line

Cannabinoid Pharmacology (CPY)

CPY 500: Applied CNS Pharmacology

Credits: 3

College: Institute for Emerging Health Professions

Schedule Type: On-Line

CPY 501: Cannabinoid Pharm & Tox

Credits: 3

College: Institute for Emerging Health Professions

Prerequisites: CPY 500

Schedule Type: On-Line

CPY 506: Cannabinoid Pharmacokinetics

Credits: 3

College: Institute for Emerging Health Professions

Prerequisites: CPY 500

Schedule Type: On-Line

CPY 510: Cul Hist,Reg,&Pol of Cannabis

Credits: 3

College: Institute for Emerging Health Professions

Schedule Type: On-Line

CPY 520: Cannabinoid Research Design

Credits: 3

College: Institute for Emerging Health Professions

Schedule Type: On-Line

Cannabis & Society (CSO)

CSO 521: Cannabis & Public Health

Credits: 3

College: Institute for Emerging Health Professions

Schedule Type: On-Line

CSO 522: Cannabis Policy Politics & Reg

Credits: 3

College: Institute for Emerging Health Professions

Schedule Type: On-Line

CSO 523: Cannabis Soc Jus & Equity Pol

Credits: 3

College: Institute for Emerging Health Professions

Schedule Type: Lecture/On-Line, On-Line

Cannabis Business (CBU)

CBU 501: Emerg Iss in Cannabis Industry

Credits: 3

College: Institute for Emerging Health Professions

Schedule Type: On-Line

CBU 506: Ess/Cannabis Fin & Op Analysis

Credits: 3

College: Institute for Emerging Health Professions

Schedule Type: On-Line

CBU 509: Indus Hemp Mat, Process & Prod

Credits: 3

College: Institute for Emerging Health Professions

Schedule Type: On-Line

Cannabis Medicine (CMD)

CMD 503: Path Poten Respon to Cannabis

Credits: 3

College: Institute for Emerging Health Professions

Schedule Type: On-Line

CMD 504: Convent & Cannab Therap of Dis

Credits: 3

College: Institute for Emerging Health Professions

Schedule Type: On-Line

CMD 505: Hlth Implicat of Med Cannabis

Credits: 3

College: Institute for Emerging Health Professions

Schedule Type: On-Line

CMD 506: Cann Med & Nerv System Disord

Credits: 3

College: Institute for Emerging Health Professions

Schedule Type: On-Line

CMD 510: Cul Hist,Reg,&Pol of Cannabis

Credits: 3

College: Institute for Emerging Health Professions

Schedule Type: On-Line

CMD 520: Cannabinoid Research Design

Credits: 3

College: Institute for Emerging Health Professions

Schedule Type: On-Line

Cannabis Research (CRS)

CRS 600: Applied Rsrch Design & Methods

Credits: 3

College: Institute for Emerging Health Professions

Schedule Type: On-Line

CRS 610: Cannabis Capstone Project

Credits: 3

College: Institute for Emerging Health Professions

Schedule Type: On-Line

Cannabis Science (CSC)

CSC 511: Botany and Chem of Cannabis

Credits: 3

College: Institute for Emerging Health Professions

Schedule Type: On-Line

CSC 512: Forensic Analysis of Cannabis

Credits: 3

College: Institute for Emerging Health Professions

Schedule Type: On-Line

CSC 513: Cannabinoid Pharmacology

Credits: 3

College: Institute for Emerging Health Professions

Schedule Type: On-Line

Cell and Tissue Engineering (TE)

TE 511: Tissue Engineering Techniques

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Tutorial

TE 521: Tissue Engineering Tech II

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Tutorial

TE 531: Biological Basis of TE & RM

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Lecture, On-Line, Tutorial

TE 541: Cardio & Blood Tis Engineering

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Lecture

TE 624: Extracellular Matrix

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Lecture

TE 710: Seminar

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Seminar

TE 720: Seminar

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Seminar

TE 730: Seminar

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Seminar

Cell Biology (CB)

CB 560: Principles of Cell Biology

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lecture, On-Line

CB 570: Pathologic Asp of Disease

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lecture, Lecture/On-Line, On-Line

CB 610: Research Rotation I

Credits: 1-10

College: Jefferson College of Life Sciences

Schedule Type: Reseach

CB 611: Adv Topics-Cell Biology

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lecture

CB 615: Devel. Biol I-Embryology

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lecture, On-Line

CB 616: Current Topics-MCB I

Credits: 1

College: Jefferson College of Life Sciences

Schedule Type: Lecture, On-Line

CB 620: Research Rotation II

Credits: 1-6

College: Jefferson College of Life Sciences

Schedule Type: Reseach

CB 625: Mechanisms of Development

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lecture

CB 626: Current Topics-MCB II

Credits: 1

College: Jefferson College of Life Sciences

Schedule Type: On-Line, Seminar

CB 630: Research Rotation III

Credits: 1-6

College: Jefferson College of Life Sciences

Schedule Type: Reseach

CB 635: GeneEnv Intractns BirthDef&Dis

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Lecture, On-Line

CB 636: Current Topics-MCB III

Credits: 1

College: Jefferson College of Life Sciences

Schedule Type: Seminar

CB 710: Seminar

Credits: 1

College: Jefferson College of Life Sciences

Schedule Type: On-Line, Seminar

CB 720: Seminar

Credits: 1

College: Jefferson College of Life Sciences

Schedule Type: On-Line, Seminar

CB 730: Seminar

Credits: 1

College: Jefferson College of Life Sciences

Schedule Type: Seminar

CB 740: MechanismsPersonalizedMedicine

Credits: 1

College: Jefferson College of Life Sciences

Schedule Type: Lecture, Seminar

CB 810: Clerkship - MSCB

Credits: 1-6

College: Jefferson College of Life Sciences

Schedule Type: Clinical, Independent Study

CB 820: Master's Clerkship-DB

Credits: 1-6

College: Jefferson College of Life Sciences

Schedule Type: Reseach

CB 830: Clerkship - MSCB

Credits: 1-6

College: Jefferson College of Life Sciences

Schedule Type: Clinical, Independent Study, Reseach

CB 840: Capstone Project

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Reseach

CB 870: Research - MSCB

Credits: 1-6

College: Jefferson College of Life Sciences

Schedule Type: Reseach

CB 880: Master's Research-DB

Credits: 1-6

College: Jefferson College of Life Sciences

Schedule Type: Reseach

CB 890: Research - MSCB

Credits: 1-6

College: Jefferson College of Life Sciences

Schedule Type: Reseach

Chemistry (CHEM)

CHEM 504: Biochemistry

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, Lecture/Lab

Chronic Care Management (CCM)

CCM 501: Anal&CritMod for CC Prevention

Credits: 3

College: Jefferson College of Population Health

Schedule Type: Lecture

Clinical Research (CR)

CR 810: Clerkship - MSCR

Credits: 1-6

College: Jefferson College of Life Sciences

Schedule Type: Clinical, Lecture, Reseach

CR 820: Clerkship- Clinical Research

Credits: 1-6

College: Jefferson College of Life Sciences

Schedule Type: Reseach

CR 830: CR Clerkship

Credits: 1-6

College: Jefferson College of Life Sciences

Schedule Type: Clinical, Lecture, Reseach

CR 870: Clinical Research- Research

Credits: 1-6

College: Jefferson College of Life Sciences

Schedule Type: Clinical, Lecture, Reseach

CR 880: MS Research- Clinical Research

Credits: 1-6

College: Jefferson College of Life Sciences

Schedule Type: Reseach

CR 890: Research- Clinical Research**Credits:** 1-6**College:** Jefferson College of Life Sciences**Schedule Type:** Reseach

Communications (COMM)

Community & Trauma Counseling (CTC)

CTC 510: History & Theory of Art Therapy

This course provides students with an understanding of the foundation of the art therapy profession, including history, philosophy, milestones, practitioners, and overview of the major theories in art therapy. Students will examine the roots of art therapy in culture, and the roots of the art therapy profession as a clinical discipline. Students will become familiar with the founders of modern art therapy including those who have developed the profession within specific theoretical approaches. Students will develop understanding of how different theories might manifest within the practice of art therapy.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**CTC 512: Ethics, Stan&Prof Orient in AT**

Study addresses professional roles and functions of art therapists and agencies/organizations in which art therapists work, a history of ethical principles, and current and developing issues of ethical practice. Attention will be given to showing art, saving art, online practice, and ethical decision making models. Discussion includes membership in professional art therapy organizations as well as credentialing and licensure.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**CTC 520: Studio & Techn of Art Therapy**

This course will expose students to direct experience of the therapeutic utility and psychological influence of art processes and materials. Art making will be explored relative to assessment techniques, intervention strategies, treatment planning, and building of therapeutic rapport. Study will include systemic applications of art such as the Expressive Therapies Continuum (ETC), the Formal Elements of Art Therapy Scale (FEATS), and the Diagnostic Drawing Series (DDS). Open only to students in the CTC art therapy specialization.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**CTC 601: Orient to the Counseling Prof**

Orientation to the Counseling Profession provides students with an understanding of the foundation of the counseling profession, including history, philosophy, and the essential fund of knowledge for counseling practice. Study addresses professional roles and functions of counselors and counseling agencies, ethical practice and issues, and models of practice and administration. Discussion includes membership in professional organizations and credentialing.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**CTC 602: Pre-Prac:Thry & Prc of Counsel**

This course provides didactic and experiential learning of advanced counseling theory and practice, with an introduction to theory-driven evidenced-based practices for trauma treatment. Classroom learning and readings provide an in-depth overview of a variety of theoretical approaches underlying individual and group practice in counseling. Discussion will include the basic concepts, interventions, research, practice and issues related to each classic and contemporary approach. Study will address how each approach conceptualizes client presentation and helps the student determine appropriate counseling interventions.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** CTC Lecture**CTC 602A: Pract I: Theory Prac Coun Grp****Credits:** 0**College:** Jefferson College of Health Professions**Schedule Type:** CTC Group Meeting**CTC 603: Human Growth & Development**

Human Growth and Development provides an understanding of the development of the individual through the lifespan. Study explores the development of attachment, cognition, emotions, and personality. Discussion includes the perspectives of the biocological model and factors influencing healthy and unhealthy development, with particular attention to the effects of trauma causing events and contexts on individuals of all ages.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**CTC 604: Psychopathology**

This course provides an understanding of the classification, etiology, and treatment of psychopathology. Study includes the examination of symptomatology, clinical presentation, diagnostic criteria, and diagnosis involved with disorders prevalent within counseling contexts.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**CTC 605: Foundatn of Trauma Counseling**

CTC 605 Foundations of Trauma Counseling provides an understanding of the phenomena of trauma and human responses, treatment, and recovery. Discussion includes identifying major types of trauma, effects, assessment, and a survey of clinical interventions. The neurobiology of trauma and responses is explored, with attention to its relevance to understanding response behaviors and treatment.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** By Appointment - 1 student, Hybrid, Lecture, On-Line**CTC 605CT: Foundatn of Trauma Counseling**

Foundations of Trauma Counseling provides an understanding of the phenomena of trauma and human responses, treatment, and recovery. Discussion includes identifying major types of trauma, effects, assessment, and a survey of clinical interventions. The neurobiology of trauma and responses is explored, with attention to its relevance to understanding response behaviors and treatment.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture

CTC 606: Social and Cultural Diversity

This course provides an understanding of the social and cultural influences that affect the development, interpersonal relationships, and life experience of diverse client populations. The counseling discipline is committed to the helping professional being prepared to work with individuals with varying backgrounds, including race, ethnicity, culture, gender, sexual orientation, religious preference, and physical disability. The special counseling needs of diverse populations is discussed, including issues relating to different life experiences and needs, treatment approaches, and access to resources.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

CTC 607: Adv. Counseling Theory & Prac

This course provides didactic and experiential learning of advanced counseling theory and practice. Classroom learning and readings provide an in-depth overview of a variety of theoretical approaches underlying counseling practice. Discussion will include the basic concepts, interventions, research, practice and issues related to each classic and contemporary approach. Study will address how each approach conceptualizes client presentation and will further help the student to determine appropriate counseling interventions. The experiential portion of this course will be completed in both practicum field placements (as a continuation of CTC 602), and within a small group lab facilitated by a faculty instructor.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: CTC Lecture, Lecture

CTC 608: Group Work in CTC

This course will provide an understanding of the theory and practice of group counseling. Study explores principles of group dynamics and processes, methods of group interventions and counseling, and characteristics of types of participants, leadership, and facilitation, especially in regards to trauma intervention and counseling. The course includes direct experience in which students design a group intervention and practice group facilitation skills.

Credits: 1.5

College: Jefferson College of Health Professions

Schedule Type: CTC Lecture

CTC 609: Counseling Assessment

This course surveys counseling assessments and techniques used in educational, counseling and clinical settings. Study will include selection of appropriate instruments, administration, scoring, and interpretation. Basic statistic concepts will be discussed to provide an understanding of test rationale and construction.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: CTC Lecture, Lecture

CTC 610: Counsln Research and Evaltn

This course presents a study of basic statistics and research methods used in the social sciences and the implications and application to counseling, with predominant attention to community and trauma counseling. Students will have the opportunity to review current research and literature and evaluate its application to practice.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: By Appointment - 1 student, CTC Group Meeting, CTC Lecture

CTC 611: Career Development

This course provides an understanding of career development related to the counseling process and context. Study explores career development theory, methods of exploration and evaluation, planning and organization strategies, and resources available for career counseling. Discussion will include the examination of interrelationships between work and career, identity, family and social relationships, and psychological health.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: By Appointment - 1 student, Lecture, On-Line

CTC 612: Crisis Prev & Inter Strategies

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

CTC 612CT: Crisis Prev & Inter Strategies

Credits: 0

College: Jefferson College of Health Professions

Schedule Type: Lecture

CTC 613: Attachmt Relatns & Fam Therapy

This course couples an exploration of attachment theory and research with the study of couples and family therapy. Discussion examines historical and contemporary perspectives on attachment and the relevance for understanding the development of the individual, interpersonal relationships and family dynamics. Major approaches to family therapy are studied, and discussion includes specific application to understanding the influence of trauma on family systems and implications for trauma therapy.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

CTC 614: Fndtns of Trauma&Addictv Behav

Addictions Theory and Practice provides a focused presentation of theories of counseling related to addiction treatment, including research, treatment processes, and treatment issues. Discussion examines assessment and diagnosis, co-occurring disorders, trauma-related issues, and special treatment issues with specific populations. The course is oriented toward developing a practical counseling framework for utility, while being knowledge rich and flexible for diverse populations.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

CTC 614CT: Fndtns of Trauma&Addictv Behav

Addictions Theory and Practice provides a focused presentation of theories of counseling related to addiction treatment, including research, treatment processes, and treatment issues. Discussion examines assessment and diagnosis, co-occurring disorders, trauma-related issues, and special treatment issues with specific populations. The course is oriented toward developing a practical counseling framework for utility, while being knowledge rich and flexible for diverse populations.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

CTC 614N: Found of Trauma&AddictiveBehav

Foundations of Trauma and Addictive Behaviors provides a focused presentation of the foundations of addiction treatment including models of addiction, assessment and screening, co-occurring disorders, treatment processes, and relapse prevention. Discussion examines how the intersection of trauma and developmental disruptions present in clients with addictive disorders, co-occurring disorders, trauma-related issues, and the understanding and practice of key treatment modalities. The course is oriented toward developing a practical counseling framework for utility, while being knowledge rich and flexible for diverse populations.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**CTC 615: Relatn Trauma to Childhd Dev.**

This course integrates an understanding of typical processes and stages of childhood growth and development with an appreciation for the impact interactions by caregivers can have on the development of healthy/positive physical, intellectual, emotional, social and relational outcomes for infants, toddlers and children. Exploring what can influence positive outcomes opens minds to new awareness that in turn leads to discussions around the potential for negative outcomes, such as those connected with adverse childhood experiences and other forms of trauma. Students will identify and understand some causes of trauma and the impact of trauma on the growth, development and functioning of the brain. Discussion provides an overview of practices that influence healthy growth and development to inspire and inform such practices that can lead to the prevention of adverse experiences in childhood. An additional focus is the preparation for future exploration around the causes and impact of childhood adversity, and appropriate interventions for children and families who have experienced adversity.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**CTC 616: Experiential Train Grp in CTC**

This course will reinforce the learning of CTC 608, Group Work in Community and Trauma Counseling, by allowing students to experience being a process group member. This course provides a deeper understanding of the theory and practice of group counseling as students observe and reflect upon group counseling concepts related to forming groups, establishing norms, the stages of group, group membership, leadership skills, and other special considerations related to process groups.

Credits: 1.5**College:** Jefferson College of Health Professions**Schedule Type:** Lab**CTC 617: Enhancing Trauma Awareness**

This course provides vital information on the causes of trauma, the complexity of trauma's presentation in children, and the impact of trauma on development. Common trauma-related responses in children will be explored, and suggestions for trauma-sensitive behaviors on the part of professionals and others who serve as caregivers of children will be provided. This course aims to develop a greater awareness of the potential impact of trauma on a myriad of related developmental processes.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**CTC 618: Apply Trauma Princ in Practice**

This course focuses on trauma knowledge and skill acquisition, coupled with reflective practice to enhance students' progression toward trauma competence. Special attention is paid to the application of trauma principles within real-life situations to promote transfer of training.

Prerequisites: CTC 615 and 617**Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**CTC 619: Art Therapy Assessment**

This course gives students an understanding of the history & evolution of assessment and specifically how it is applied in art therapy. Students explore instruments used for clinical assessment in art therapy, including how to administer, score/evaluate, and communicate information gathered. Students will grasp use of tools in treatment planning & advancing the therapeutic relationship and goals.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** CTC Lecture**CTC 620: Grp Work in Art Thrpy & Coussl**

This course will give graduate students an in-depth study into the theory and dynamics of group art therapy, including approaches unique to couples and families. Students will have the opportunity to explore advanced group process including aspects of leadership and facilitation, as merged with art therapy techniques to groupwork. This course includes direct experience in which students participate as group members during in-group activities.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** CTC Lecture**CTC 630: Enhancing App of Trauma Princ**

Enhancing Practical Application of Childhood Trauma Principles This course builds upon previous learning in childhood trauma, and expands upon the practical application of childhood trauma knowledge and skills through a practicum approach. Students engage in observations, planning, implementation and evaluation, and participate in Reflective Processing to enhance their development and competence.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**CTC 651: Neurobiology of Trauma**

CTC 651 Neurobiology of Trauma provides an understanding of the neurobiological processes involved in trauma experiencing, processing, and post-trauma adaptation. Study includes affective neuroscience, arousal modulation, memory processes involved in trauma experiences, executive functioning, and post-trauma adaptation of these and other areas and processes. Discussion examines application of neuroscience to understanding trauma experiencing and treatment.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture

CTC 651CT: Neurobiology of Trauma

Neurobiology of Trauma provides an understanding of the neurobiological processes involved in trauma experiencing, processing, and post-trauma adaptation. Study includes affective neuroscience, arousal modulation, memory processes involved in trauma experiences, executive functioning, and post-trauma adaptation of these and other areas and processes. Discussion examines application of neuroscience to understanding trauma experiencing and treatment.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

CTC 652: Child Trauma & Play Therapy

This course provides an understanding of the environmental factors that contribute to and constitute adverse childhood experiences, and the effects on children's development and subsequent behavior. Discussion will include attachment theory and the influence of attachment on development, historical and contemporary research on adverse childhood experiences and subsequent mental health and illness, and an overview of prevention and intervention, and treatment

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

CTC 652CT: Child Trauma & Play Therapy

This course provides an understanding of the environmental factors that contribute to and constitute adverse childhood experiences, and the effects on children's development and subsequent behavior. Discussion will include attachment theory and the influence of attachment on development, historical and contemporary research on adverse childhood experiences and subsequent mental health and illness, and an overview of prevention and intervention, and treatment

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

CTC 653: Adv Clin Interventn in Trauma

This course provides a detailed examination of clinical interventions for treating posttraumatic stress disorder. Specific study includes trauma-focused cognitive behavioral treatment of adults and children, eye movement desensitization and reprocessing, dialectical behavior therapy, body-oriented therapy, and expressive group processes. Discussion examines evidence-based practices and evaluation of therapeutic interventions.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

CTC 653CT: Adv Clin Interventn in Trauma

This course provides a detailed examination of clinical interventions for treating posttraumatic stress disorder. Specific study includes trauma-focused cognitive behavioral treatment of adults and children, eye movement desensitization and reprocessing, dialectical behavior therapy, body-oriented therapy, and expressive group processes. Discussion examines evidence-based practices and evaluation of therapeutic interventions.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

CTC 654: Know & Skill Req for Comm Dis

Disaster mental health intervention involves unique clinical skills and knowledge. This course will aid in developing the requisite competencies to enable mental health clinicians to successfully help survivors, rescue workers, and other volunteers in the aftermath of a disaster. Topics include the psychological phases of a community-wide disaster, common patterns of immediate and long-term public response, mental health risks that rescue workers and victims face, assessment of mental health needs, as well as a focus on self-reflection and self care. Course content will align with standards proposed in the Disaster Mental Health Handbook (American Red Cross, 2012).

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

CTC 654CT: Know & Skill Req for Comm Dis

Disaster mental health intervention involves unique clinical skills and knowledge. This course will aid in developing the requisite competencies to enable mental health clinicians to successfully help survivors, rescue workers, and other volunteers in the aftermath of a disaster. Topics include the psychological phases of a community-wide disaster, common patterns of immediate and long-term public response, mental health risks that rescue workers and victims face, assessment of mental health needs, as well as a focus on self-reflection and self care. Course content will align with standards proposed in the Disaster Mental Health Handbook (American Red Cross, 2012).

Credits: 0

College: Jefferson College of Health Professions

Schedule Type: Lecture

CTC 655: Adv Clin Int in Traum Treat II

This course will provide students with primarily utilize case-based simulation learning as the pedagogy. Discussion of the theory behind trauma-informed evidenced-based practices will occur to ensure students have an understanding of the core trauma-informed evidenced based practices used in the field of counseling. Students will engage in case-based learning to practice the clinical skills necessary to carry out evidence-based practice components to various trauma-based case studies, including crisis intervention skills. Psychological First Aid learning will take place through an experiential learning activity.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

CTC 655CT: Adv Clin Int in Traum Treat II

This course will provide students with primarily utilize case-based simulation learning as the pedagogy. Discussion of the theory behind trauma-informed evidenced-based practices will occur to ensure students have an understanding of the core trauma-informed evidenced based practices used in the field of counseling. Students will engage in case-based learning to practice the clinical skills necessary to carry out evidence-based practice components to various trauma-based case studies, including crisis intervention skills. Psychological First Aid learning will take place through an experiential learning activity.

Credits: 0

College: Jefferson College of Health Professions

Schedule Type: Lecture

CTC 660: FNDS: Child-Centered Play Ther

This course provides students with an in-depth grounding in the theory and practice of Child Centered Play Therapy (CCPT). Framed in its historical context, CCPT will be introduced as the foundational model upon which most subsequent play therapy models are based. Students will engage with contemporary CCPT literature and develop competencies in the core skills of structuring, empathic listening, supporting child centered play, and limit setting. This course will call upon students' understanding of client social and cultural contexts, and challenge students to think critically about the implementation of CCPT in a variety of practice settings. Student learning will be facilitated by a combination of lecture, discussion, and skills practice. As part of play therapy sequence, this course will introduce students to knowledge and skills that can be applied across play therapy frameworks.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**CTC 660CT: FNDS: Child-Centered Play Ther**

This course provides students with an in-depth grounding in the theory and practice of Child Centered Play Therapy (CCPT). Framed in its historical context, CCPT will be introduced as the foundational model upon which most subsequent play therapy models are based. Students will engage with contemporary CCPT literature and develop competencies in the core skills of structuring, empathic listening, supporting child centered play, and limit setting. This course will call upon students' understanding of client social and cultural contexts, and challenge students to think critically about the implementation of CCPT in a variety of practice settings. Student learning will be facilitated by a combination of lecture, discussion, and skills practice. As part of play therapy sequence, this course will introduce students to knowledge and skills that can be applied across play therapy frameworks.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**CTC 661: Hist Sig Appr: Dir. Play Thera**

Building on students' foundational knowledge of play therapy and child trauma, this course introduces several models of directive play therapy. Developed in response to classical, child-centered models, directive approaches feature varying degrees of therapist-initiated interventions. Often, directive interventions are implemented when treatment is time-limited, when clinicians are targeting specific goal areas, or when clients' spontaneous play is inhibited. This course will provide students with base-level knowledge of frameworks of particular significance to the field of play therapy. Students will have several opportunities to engage in hands-on practice of skills that are specific to the models covered in this course and will continue to develop competencies in engaging clients with play therapy materials. Particular attention will be paid to integration of play therapy techniques into brief treatment including in educational and medical settings.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**CTC 661CT: Hist Sig Appr: Dir. Play Thera**

Building on students' foundational knowledge of play therapy and child trauma, this course introduces several models of directive play therapy. Developed in response to classical, child-centered models, directive approaches feature varying degrees of therapist-initiated interventions. Often, directive interventions are implemented when treatment is time-limited, when clinicians are targeting specific goal areas, or when clients' spontaneous play is inhibited. This course will provide students with base-level knowledge of frameworks of particular significance to the field of play therapy. Students will have several opportunities to engage in hands-on practice of skills that are specific to the models covered in this course and will continue to develop competencies in engaging clients with play therapy materials. Particular attention will be paid to integration of play therapy techniques into brief treatment including in educational and medical settings.

Credits: 0**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**CTC 662: ISEM: Intersectionality & PT**

The final course in the play therapy sequence, CTC xxx will facilitate students' synthesis of play therapy skills and theoretical models into counseling practice with a particular focus on settings that serve children and families in marginalized communities. Grounded in an intersectional framework for analyzing structural identities, this course will challenge students to engage with issues of power, privilege, and social justice in play therapy case conceptualization and practice. Through a combination of lecture, discussion, and skills practice, students will develop tools to empower children and families through play therapy interventions. This course will also provide students with opportunities to reflect on their professional growth and development as play therapists.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**CTC 662CT: ISEM: Intersectionality & PT**

The final course in the play therapy sequence, CTC xxx will facilitate students' synthesis of play therapy skills and theoretical models into counseling practice with a particular focus on settings that serve children and families in marginalized communities. Grounded in an intersectional framework for analyzing structural identities, this course will challenge students to engage with issues of power, privilege, and social justice in play therapy case conceptualization and practice. Through a combination of lecture, discussion, and skills practice, students will develop tools to empower children and families through play therapy interventions. This course will also provide students with opportunities to reflect on their professional growth and development as play therapists.

Credits: 0**College:** Jefferson College of Health Professions**Schedule Type:** Lecture

CTC 670: Screening, Assess, & Treatment

Screening, Assessment and Treatment Planning for Addictions provides a foundation for the clinical evaluation for the existence of a substance use disorder as well as any co-occurring disorders, the severity of an existing disorder, an objectified formulation for the determination of an appropriate level of care for treating the disorder and the elements of meaningful planning for ongoing recovery. Discussion examines assessment and diagnosis, co-occurring disorders, trauma-related issues, and the development and maintenance of a treatment plan that is specific, meaningful, measurable and relates to the client's presentation of the problem as well as their own stated goals for treatment. The course is oriented toward developing a practical counseling framework for utility, while being knowledge-rich and flexible for diverse populations.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**CTC 670CT: Screening, Assess, & Treatment**

Screening, Assessment and Treatment Planning for Addictions provides a foundation for the clinical evaluation for the existence of a substance use disorder as well as any co-occurring disorders, the severity of an existing disorder, an objectified formulation for the determination of an appropriate level of care for treating the disorder and the elements of meaningful planning for ongoing recovery. Discussion examines assessment and diagnosis, co-occurring disorders, trauma-related issues, and the development and maintenance of a treatment plan that is specific, meaningful, measurable and relates to the client's presentation of the problem as well as their own stated goals for treatment. The course is oriented toward developing a practical counseling framework for utility, while being knowledge-rich and flexible for diverse populations.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**CTC 671: Ethical Treatmnt & Intervntion**

This course will focus on the counselor as the agent of change for the development and continuation of a meaningful therapeutic relationship with the ultimate goal of client benefit with a move towards sustained recovery. There are key differentials in the develop of a therapeutic relationship that are aligned around issues of power and control. This course will cover various issues that may impact the counselors ability to engage with clients in ethical ways and cover methodologies to create an environment that is conducive to meeting the client's treatment needs and goals. This course will explore the use of clinical self while establishing and maintaining appropriate boundaries thus assuring that the client benefits maximally in the therapeutic exchange while the counselor maintains a healthy psychic distance as a means of assuring objectivity and avoiding compassion fatigue and vicarious trauma.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**CTC 671CT: Ethical Treatmnt & Intervntion**

This course will focus on the counselor as the agent of change for the development and continuation of a meaningful therapeutic relationship with the ultimate goal of client benefit with a move towards sustained recovery. There are key differentials in the develop of a therapeutic relationship that are aligned around issues of power and control. This course will cover various issues that may impact the counselors ability to engage with clients in ethical ways and cover methodologies to create an environment that is conducive to meeting the client's treatment needs and goals. This course will explore the use of clinical self while establishing and maintaining appropriate boundaries thus assuring that the client benefits maximally in the therapeutic exchange while the counselor maintains a healthy psychic distance as a means of assuring objectivity and avoiding compassion fatigue and vicarious trauma.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**CTC 672: Neurobio & Psychopharm of Addc**

Addiction has presented science with a unique opportunity to study substance use and substance use disorders from the perspective of brain chemistry and, although the current research offers us some hints in this regard, it is still a field in its infancy. This course, The Neurobiology and Psychopharmacology of Addiction will provide students with a foundation for understanding what the current literature offers us in this regard as a means of assisting counselors and therapists with the tools to give understanding to behaviors that, on the surface, might appear irrational. This course will focus on the behavioral influences that disruptions in our clients neurobiology cause. This understanding will assist clinicians in dealing with addictive behavior and guide the treatment process with an end goal of long-term recovery. Additionally, this course will provide students with a working knowledge of psychopharmacology within the field of addictions.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Hybrid, On-Line**CTC 672CT: Neurobio & Psychopharm of Addc**

Addiction has presented science with a unique opportunity to study substance use and substance use disorders from the perspective of brain chemistry and, although the current research offers us some hints in this regard, it is still a field in its infancy. This course, The Neurobiology and Psychopharmacology of Addiction will provide students with a foundation for understanding what the current literature offers us in this regard as a means of assisting counselors and therapists with the tools to give understanding to behaviors that, on the surface, might appear irrational. This course will focus on the behavioral influences that disruptions in our clients neurobiology cause. This understanding will assist clinicians in dealing with addictive behavior and guide the treatment process with an end goal of long-term recovery. Additionally, this course will provide students with a working knowledge of psychopharmacology within the field of addictions.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Hybrid, Lecture**CTC 700: Practicum Ii: Theory Prac Coun****Credits:** 0**College:** Jefferson College of Health Professions**Schedule Type:** Lecture

CTC 701: Practicum

As a continuation of CTC 602 Practicum I, CTC 701 Practicum II provides further opportunity for clinical practice and supervision at practicum field placements. Students will complete at least 100 hours on site at their practicum placement (across Practicum I and Practicum II), and will continue to develop counseling skills in a community or institutional mental health setting under the direct supervision of a mental health professional. Class discussions will entail group supervision led by University faculty. Class meetings provide students the opportunity for case processing, as well as supervision around various aspects of professional practice. Other discussion topics include an orientation toward a systems perspective, wellness and prevention perspectives, evidence-based practices, theory-driven interventions, and multicultural competence.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Hybrid, Lecture**CTC 702: Practicum Extension****Credits:** 0.5**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**CTC 790: Summer Internship Supervision**

As a prelude to CTC 791 Internship I, CTC 790 Internship Supervision provides an opportunity for students to engage in clinical practice at Internship field placements and to receive the necessary faculty supervision during the summer semester. Some training sites require a summer start date, and some students' schedules require more months to meet the established requirements. Students are required to complete at least 600 hours on site at their Internship placement (across Summer Internship Supervision, Internship I and Internship II), and will continue to develop counseling skills in a community or institutional mental health setting under the direct supervision of a mental health professional. Class discussions will entail group supervision led by University faculty. Class meetings provide students the opportunity for case processing, as well as supervision around various aspects of professional practice. Other discussion topics include an orientation toward a systems perspective, wellness and prevention perspectives, evidence-based practices, theory-driven interventions, and multicultural competence.

Credits: 0**College:** Jefferson College of Health Professions**Schedule Type:** CTC Group Meeting**CTC 791: Internship in CTC I**

The internship is intended to represent the comprehensive work experience of the professional counselor consistent with the program area of study. Students must complete 600 clock hours over two semesters, begun after successful completion of the practicum, and with 240 clock hours of direct service including experience leading groups. This experience is an opportunity for the student to become familiar with the routine practices and processes of the professional counselor including assessment, record-keeping, supervision, collaboration, referral, in-service trainings and staff meetings. Students will attend periodic group supervision facilitated by a faculty supervisor; these class meetings count toward the clock hours required for the course.

Credits: 3**College:** Jefferson College of Health Professions**Prerequisites:** CTC 602 [Min Grade: C]**Schedule Type:** CTC Internship, CTC Lecture, CTC Internship/Lecture**CTC 792: Internship in CTC II**

The internship is intended to represent the comprehensive work experience of the professional counselor consistent with the program area of study. Students must complete 600 clock hours over two semesters, begun after successful completion of the practicum, and with 240 clock hours of direct service including experience leading groups. This experience is an opportunity for the student to become familiar with the routine practices and processes of the professional counselor including assessment, record-keeping, supervision, collaboration, referral, in-service trainings and staff meetings. Students will attend periodic group supervision facilitated by a faculty supervisor; these class meetings count toward the clock hours required for the course. Prerequisite: CTC 791

Credits: 3**College:** Jefferson College of Health Professions**Prerequisites:** CTC 602 [Min Grade: C]**Schedule Type:** CTC Internship, CTC Lecture**CTC 793: Internship Ext in CTC I**

The internship is intended to represent the comprehensive work experience of the professional counselor consistent with the program area of study. Students must complete 600 clock hours over two semesters, begun after successful completion of the practicum, and with 240 clock hours of direct service including experience leading groups. This experience is an opportunity for the student to become familiar with the routine practices and processes of the professional counselor including assessment, record-keeping, supervision, collaboration, referral, in-service trainings and staff meetings. Students will attend periodic group supervision facilitated by a faculty supervisor; these class meetings count toward the clock hours required for the course.

Credits: 0.5**College:** Jefferson College of Health Professions**Schedule Type:** By Appointment - 1 student, Lecture**CTC 794: Internship Extension in CTC II**

The internship is intended to represent the comprehensive work experience of the professional counselor consistent with the program area of study. Students must complete 600 clock hours over two semesters, begun after successful completion of the practicum, and with 240 clock hours of direct service including experience leading groups. This experience is an opportunity for the student to become familiar with the routine practices and processes of the professional counselor including assessment, record-keeping, supervision, collaboration, referral, in-service trainings and staff meetings. Students will attend periodic group supervision facilitated by a faculty supervisor; these class meetings count toward the clock hours required for the course.

Credits: 0.5**College:** Jefferson College of Health Professions**Schedule Type:** By Appointment - 1 student, Lecture

Construction Management (CMGT)

CMGT 600: Constructn Estimatr & Schedn

This course focuses upon the planning and scheduling stages of the building process including preconstruction phase, with particular emphasis upon reading construction documents and basic estimating principles applied to small-scale and commercial projects. Techniques for estimating unit quantities and costs of materials, labor and equipment are introduced with given industry applications, building specifications, and computer software. Scheduling principles are introduced with Critical Path Method (CPM) through calculations and software applications. The required software should be installed in students' personal laptops. See CABA Laptop Requirements for details.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: Hybrid, Lab, Lecture, Lecture/On-Line, On-Line

CMGT 601: Special Topics in Construction

This course addresses pertinent issues relative to construction. Special issues related to construction will be investigated by individual or groups of students based on a discussion with the instructor. The course is designed to broaden the Construction Management topics to include enhanced research opportunities.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: Lecture

CMGT 602: Constructn Informatn Modeling

This course is a BIM-based course to introduce students the aspects of the related BIM software. Students will be expected to develop their skills, including architecture, structure, and mechanical, electrical, plumbing (MEP) components of BIM, using the required software through lectures and self-study. Students will be introduced to estimating and collaboration skills relative to the application of the software to real-world cases. The required software should be installed in students' personal laptops. See CABA Laptop Requirements for details.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: Hybrid, Lecture, Lecture/On-Line, On-Line

CMGT 603: Const Law: Roles & Responsibi

Current legal problems associated with the construction industry are investigated from management's perspective by considering the roles assigned to various project participants, reviewing case law, and studying statutory requirements. Students will gain the knowledge to effectively identify and manage the legal and contractual risk associated with construction. This includes understanding current legal and ethical problems associated with the entire building process from preconstruction through project closeout. The class scrutinizes contractual relationships, delivery methods, insurance, bonding, indemnification, dispute resolution, and other risk management tools to better deliver projects on time, within budget, and avoid legal claims.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: Hybrid, Lecture, Lecture/On-Line, On-Line

CMGT 604: Project Finance & Cost Control

This course probes the economics of construction and analyzes project control systems used to effectively manage cost and time. Principles drawn from cognate business fields, specifically accounting, finance, and taxation, are given real-life application relative to construction projects of multiple types and scales. Key budgetary issues are examined in-depth, including financial statements and balance sheets, variance analysis and optimum cash flow methods, as well as efficient cost reporting systems. Additional topics include internal controls, financial analysis and presentation, contractor surety and lending, and fraud, with particular emphasis upon cost-effective methods to procure and deliver construction projects including lump sum, unit price, cost-plus, and design-build.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: By Appointment - 1 student, Lecture, On-Line

CMGT 605: Contemp Topics in Construction

This seminar course is an opportunity for graduate construction management students to explore emerging trends in the construction industry while integrating the knowledge and skills developed through their previous coursework. Seminar discussions will respond to readings, guest lecturers and project reviews presented by industry partners. The course includes individual and group research projects the results of which are also discussed during seminar meetings. Material and discussions will include topics such as professional practice, integrated project delivery, industry-specific ethical challenges, sustainable practice, and career alternatives.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: Hybrid, Lecture, On-Line

CMGT 606: Construction Risk Management

This course examines the key concepts, models, codes, tools and techniques used in managing risks within the architecture, construction, and engineering industries. The course will focus on planning for the effective implementation of the risk management process, identification, and qualitative and quantitative assessment of risks, appropriate strategies to respond to risks, and how to sustain the risk management process throughout the life of a construction project. Site safety concepts will be introduced in connection to OSHA requirements. Topics also include quality management and environmental requirements.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: Hybrid, Lecture, On-Line

CMGT 607: Intro to Construction Proj Mgt

Course Description: This foundation course introduces students to the basic construction management concepts and principles as applied to contemporary practice and investigates the intersecting roles of construction manager, architect, and owner. The course will explore the various types of construction along with identifying terms and specific industry vocabulary. Students will learn to read and inspect construction graphics. Topics include Project Delivery Methods (PDMs), construction contracts and specs, CSI master format, and common software applications used in the construction industry.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: Hybrid, Lecture, On-Line

CMGT 608: Constructn Enviromental Mgmt.

This course examines the key concepts, systems, laws, tools and techniques used in managing environmental risks within the architecture, construction and engineering industries. The course will focus on environmental issues from a construction business management perspective and include analytical techniques, management processes and business strategies that aid successful reconciliation of environmental and economic performance goals for construction operations. Through a combination of real-life cases, readings, lectures, videos, and simulations, class sessions will seek to engage students in discussions aimed at developing systems of corporate environmental management, covering compliance, environmental risk management, pollution prevention, product stewardship, supply chain management, and communication.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Hybrid, Lecture, On-Line**CMGT 609: Construction Site Operations**

Course Description: The course provides proven strategies for effective on#site management resulting in the delivery of high#quality projects on time and within budget, and maximizing profits. The course will serve as guide to the knowledge, skills, and abilities that need to be mastered by Project/Construction Managers and Project Superintendents. Observations about leadership imperatives and techniques are included. In addition to outlining broad project managerial practices, the content of the course includes operational issues such as temporary soils and drainage structures, material handling, common equipment, and site logistics.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Lecture**CMGT 610: Constructn Estimatr & Schedn****Credits:** 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Lecture**CMGT 612: Ad Constn. Proj. Management**

This course is intended to broaden and deepen the student's understanding of the Construction Management body of knowledge and depends on the student having successfully completed the prerequisite courses. The course details the project management process from the perspective of a construction project management team planning, executing, controlling, and closing-out a construction project. Emphasizing pre-construction planning, topics will include construction project management concepts, practices and systems, project controls, and risk, safety, environmental, and quality management. The course content will also address constructability and value engineering, project start-up, site layout and logistics, management means and methods, and ethical considerations. This course intends to provide the in-depth knowledge needed to for the student to start working on the Masters Project. The required software should be installed in students' personal laptops. See CABE Laptop Requirements for details.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Prerequisites:** CMGT 600 and CMGT 602 and CMGT 603 and CMGT 604 and CMGT 606 [Min Grade: C]**Schedule Type:** By Appointment - 1 student, By Appointment - 2 students, By Appointment - 3 students, Hybrid, Lab, Lecture, Lab/Lecture/Online, On-Line**CMGT 614: Materials & Mthds of Construc**

This course explores a management approach to evaluation and policies involving materials, assemblies and methodologies of general construction. Students are exposed to basic building materials, components, and systems and the appropriate techniques to evaluate their value, constructability, and other characteristics affecting project success. Emphasis is placed on the development of company policies regarding material selection, procurement, handling and assembly. Case studies and ongoing project examples are an integral part of the course.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Hybrid, Lecture, Lecture/On-Line, On-Line**CMGT 616: Real Estate Development**

This lecture course will educate students on all aspects of sustainable development ranging from construction startup to project financing to management of green construction. Students will learn techniques of cost benefit analysis including such aspects as impact of zoning and code ordinance for green projects to understanding tax incentives for such projects. Students will complete case studies and finish the semester with a completed proposal for a sustainable project.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Lecture**CMGT 618: Heavy Const Principle&Practice**

This course is intended to provide students with an introduction to the principles and practices employed in heavy/civil infrastructure and marine construction. The course content is presented from a practical perspective focusing on the management of heavy/civil construction projects. The course is designed for construction management majors as well as those majoring in related fields and is intended to provide a broad understanding of heavy construction techniques and contracting.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Hybrid, Lecture, On-Line**CMGT 699: Contemporary Topics in CM**

This seminar course is an opportunity for graduate construction management students to explore emerging trends in the construction industry while integrating the knowledge and skills developed through their previous coursework. Seminar discussions will respond to readings, guest lecturers and project reviews presented by industry partners. The course includes individual and group research projects the results of which are also discussed during seminar meetings. Material and discussions will include topics such as professional practice, integrated project delivery, industry-specific ethical challenges, sustainable practice, and career alternatives.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Hybrid**CMGT 791: Construction Mgmt Internship**

To ensure competency in the field before graduation, each student must complete 400 hours of professional construction management experience with a firm in the building industry. This requirement may be waived for entering students with equal or greater professional experience.

Credits: 1**College:** Jefferson Coll of Architecture & Built Environment**Prerequisites:** CMGT 600 and CMGT 603 and CMGT 604 [Min Grade: C]**Schedule Type:** Internship 1 Credits, Internship 3 Credits, On-Line

Couple and Family Therapy (CFTP)

CFTP 501: Theory & Practice of FT I

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

CFTP 502: Theory & Practice of FT II

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

CFTP 503: Foundations of Systemic Pract

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

CFTP 504: Psychopathol in Soc-Cult Conxt

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

CFTP 505: Life Span Dvlp Systemic Perspe

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

CFTP 506: CFTP Practicum I

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Practicum

CFTP 507: CFTP Practicum II

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Practicum

CFTP 508: CFTP Practicum III

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Clinical, Practicum

CFTP 509: Prof, Eth & Legal Issues/CFT

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

CFTP 510: Assess in Couple & Family Ther

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

CFTP 511: Intro Sex Therapy: Human Sexua

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

CFTP 512: Live Supervision I

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Clinical, Lecture, On-Line, Practicum

CFTP 513: Sys/Rel Assess&MHDiag&Treatmen

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, Seminar

CFTP 514: Theory&Practice/Couple Therapy

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, Seminar

CFTP 601: Implications for Diver in Prac

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

CFTP 602: Research in CFTP

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, Reseach

CFTP 603: Advanced Sex Therapy I

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

CFTP 604: Advanced Sex Therapy II

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

CFTP 605: Issue of Violence & Abuse Fami

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

CFTP 606: Addiction/MultisystemicContext

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line, Practicum

CFTP 607: CFPT Practicum IV

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Practicum

CFTP 608: CFTP Practicum V

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Clinical, Practicum

CFTP 609: CFTP Practicum VI

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Clinical, Practicum

CFTP 610: Trauma-Interv/ContempContext

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

CFTP 611: Medical Family Therapy

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

CFTP 612: Families in Transition

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

CFTP 613: CFTP Masters Project

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, Seminar

CFTP 614: Med Family Therapy ClinPrac I**Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Lecture, Practicum**CFTP 615: AdvMed Family Therapy SeminarI****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Lecture, Seminar**CFTP 616: MedFam Therapy Clin Pract II****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Lecture, Practicum, Seminar**CFTP 699: Independent Study****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Independent Study

Cytotechnology (CT)

CT 501: Principles of Cell Analysis**Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lab, Lecture, Lecture/Lab**CT 507: Cellular & Molec Lab Technique****Credits:** 4**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**CT 510: Cyto&Surg Pathology Techniques****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lab, Lecture, Lecture/Lab**CT 511: Cytopathology I****Credits:** 5**College:** Jefferson College of Health Professions**Schedule Type:** Lab, Lecture**CT 512: Cytopathology I Laboratory****Credits:** 3.5**College:** Jefferson College of Health Professions**Schedule Type:** Lab, Lecture**CT 515: Cytopathology II****Credits:** 5**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Lecture/Lab**CT 517: Cytopathology III****Credits:** 5.5**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Lecture/Lab**CT 525: CellularMolecular&ImmunoDiagno****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lab, Lecture, Lecture/Lab**CT 575: Cytotechnology Seminar****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Hybrid, Lab, Lecture, Lecture/Lab, On-Line**CT 812: Cytotechnology Practicum I****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Lecture, Practicum**CT 813: Cytotechnology Practicum II****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Lecture, Practicum**CT 814: Cytotechnology Practicum III****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Practicum**CT 815: Cytotechnology Practicum IV****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Practicum**CT 816: Comprehensive Exam****Credits:** 0**College:** Jefferson College of Health Professions**Schedule Type:** Exam, On-Line

Developmental Biology (DB)

DB 610: Research Rotation I**Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** Reseach**DB 615: Devel.Biol I-Embryology****Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture**DB 616: Current Topics - DB I****Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture**DB 620: Research Rotation II****Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** Reseach**DB 625: DB - Mech of Developm****Credits:** 3**College:** Jefferson College of Life Sciences**Prerequisites:** DB 615**Schedule Type:** Lecture**DB 626: Current Topics - DB II****Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** Seminar**DB 630: Research Rotation III****Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** Reseach**DB 635: DB-Mechan of Teratogen****Credits:** 3**College:** Jefferson College of Life Sciences**Prerequisites:** DB 625 and DB 615**Schedule Type:** Lecture

DB 636: Current Topics - DB III

Credits: 1

College: Jefferson College of Life Sciences

Schedule Type: Seminar

DB 705: Developm Neurobiology

Credits: 3

College: Jefferson College of Life Sciences

Prerequisites: ANAT 530

Schedule Type: Lecture

DB 710: Seminar

Credits: 1

College: Jefferson College of Life Sciences

Schedule Type: Seminar

DB 715: Sel Topics-Neurosciences

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Seminar

DB 720: Seminar

Credits: 1

College: Jefferson College of Life Sciences

Schedule Type: Seminar

DB 730: Seminar

Credits: 1

College: Jefferson College of Life Sciences

Schedule Type: Seminar

DB 745: Devel/Reprod Toxicology

Credits: 3

College: Jefferson College of Life Sciences

Prerequisites: PR 630

Schedule Type: Lecture

DB 810: Laboratory Clerkship

Credits: 1-6

College: Jefferson College of Life Sciences

Schedule Type: Clinical

DB 820: Master's Clerkship

Credits: 1-6

College: Jefferson College of Life Sciences

Schedule Type: Clinical

DB 830: Laboratory Clerkship

Credits: 1-6

College: Jefferson College of Life Sciences

Schedule Type: Clinical

DB 870: Master's Research

Credits: 1-6

College: Jefferson College of Life Sciences

Schedule Type: Reseach

DB 880: Master's Research

Credits: 1-6

College: Jefferson College of Life Sciences

Schedule Type: Reseach

DB 890: Master's Research

Credits: 1-6

College: Jefferson College of Life Sciences

Schedule Type: Reseach

Digital Health (DIGH)

DIGH 500: Telehealth & Connected Care

Credits: 3

College: Institute for Emerging Health Professions

Schedule Type: On-Line

DIGH 501: Intro to Clinical Data

Credits: 3

College: Institute for Emerging Health Professions

Schedule Type: On-Line

DIGH 502: Bus&Lgl Tools for Dig Hlth Ent

Credits: 3

College: Institute for Emerging Health Professions

Schedule Type: On-Line

DIGH 503: Blockchain-RealWorld Use Cases

Credits: 3

College: Institute for Emerging Health Professions

Schedule Type: On-Line

DIGH 520: Dig Des Essentials for Hlthcre

Credits: 3

College: Institute for Emerging Health Professions

Schedule Type: On-Line

DIGH 521: Dig Health Technology & Tools

Credits: 3

College: Institute for Emerging Health Professions

Schedule Type: On-Line

DIGH 522: User Experience Des for Hlthcr

Credits: 3

College: Institute for Emerging Health Professions

Schedule Type: On-Line

DIGH 523: Mobile Design

Credits: 3

College: Institute for Emerging Health Professions

Schedule Type: On-Line

DIGH 540: Introduction to Digital Health

Credits: 3

College: Institute for Emerging Health Professions

Schedule Type: On-Line

DIGH 541: Bus Mod for Hlthcre Innovation

Credits: 3

College: Institute for Emerging Health Professions

Schedule Type: On-Line

DIGH 542: Leg & Reg Iss for Dig Hlthcre

Credits: 3

College: Institute for Emerging Health Professions

Schedule Type: On-Line

DIGH 543: Mark & Fund for Digital Health

Credits: 3

College: Institute for Emerging Health Professions

Schedule Type: On-Line

Disaster Medicine Management (DMM)

DMM 610: Foundations in Emergency Mgmt

This course provides participants with a general overview of disaster events and covers the key components of disaster prevention, risk assessment and disaster management including: types of disasters, phases of disasters (preparedness, mitigation, response, and recovery), a brief history of disaster management in the US, agencies involved in disaster situations, public service disruptions and actions, the FEMA Whole Community concept, resilience, media relations, incident command systems and mass casualty triage. We focus on the practical application of management principles including the development of key tools including the emergency operations plan and the THIRA.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Hybrid, Lecture, On-Line

DMM 611: Prin of Disaster Med & Mgmt

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Hybrid, Lecture, On-Line

DMM 612: Fnds in Homeland Sec. & Def.

The US has embraced the homeland security monolith having neither fully understood nor tamed all that it encompasses. This challenging course provides a broad overview of homeland security and homeland defense as undertaken in the United States since 9/11. The goal is to provide the generally accepted body of knowledge required of the homeland security professional. The course focuses on four areas: the enemy, animosity and potential outcomes of threats posed; the policies and procedures enacted since 9/11; federal, state and local governmental roles; and legal issues critical to the conduct of homeland security and defense activities by the military including the National Guard. The student will gain an understanding in asymmetric thinking, develop an appreciation for the growing body of literature in the discipline of homeland security, and have the opportunity to examine a key issue in depth through a term research paper.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

DMM 613: Intl & Humanita Disaster Mgmt

International and humanitarian disaster management has steadily evolved over decades. The increased emphasis on global disaster preparedness from both governmental and private sectors has widespread application across all borders. Through the exploration of disaster models, public health, principles, economic, social and political elements, students will explore the application of the disaster cycle.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

DMM 615: Hazardous Materls & Ind Saftey

Hazardous Materials & Industrial Safety This course provides an overview of the major hazardous materials commonly encountered and their effects on humans and wildlife. Industrial waste, pollution, nuclear waste, hazardous waste transportation and the management of hazardous material accidents are all covered.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

DMM 617: Disaster Mapping

This course will provide students with an introduction into geographic information systems by infusing it into emergency management. The class will focus on the 3 major elements: 1) Fundamentals of GIS, 2) Knowledge of GIS software, and the 3) Understanding of the spatiality in emergency management situations.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

DMM 619: Natural Disasters

Natural Disasters The purpose of this course is to develop an understanding of the various types of natural disasters which plague the world. The student will study the forces of nature which cause these events to occur, the population effects of the event itself and the dynamic nature by which the event spawns further cataclysmic change in our environment.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

DMM 623: Weapons of Mass Destruction

Weapons of Mass Destruction This course introduces students to the various types of biologic, chemical and nuclear/radiologic weapons, along with the clinical manifestations and management of exposure to these. Decontamination and institutional procedures for weapons of mass destruction incident management are also covered.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

DMM 624: Org Risk and Crisis Mgmt

Organizational Risk and Crisis Management This course examines key concepts in the understanding and management of risk in an organizational environment. Aspects of risk evolution, tools and techniques, project vulnerabilities, uncertainty, modeling and risk software are included.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

DMM 625: Bus Continuity-Plan for Crisis

Business Continuity - Planning for a Crisis The course explores the issues in maintaining a business in the midst of crisis and the disruption of resources. It includes planning for, responding to, and recovering from an internal or external crisis in the organization.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: By Appointment - 1 student, Lecture, On-Line

DMM 626: Org. Recovery Prep and Plan

This course discusses business and organizational implications of the disaster recovery lessons taught by 9/11, the California energy crisis, the anthrax scare and other related disastrous events as they relate to emergency decision making and planning. Special emphasis is directed toward infrastructure and IT/IS implications of process continuation.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

DMM 627: Principles of Terrorism**Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, On-Line**DMM 631: Org Mgmt & Comm in Disasters**

Organizational Management and Communication in Disasters This course introduces students to theories of organizational dynamics and management as it pertains to crisis and disaster situations. The course also explores communication within the organization, with external agencies, and with the public and media during and after disaster events.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** By Appointment - 1 student, Lecture, On-Line**DMM 635: Pysch Aspects of Disasters**

Psychological Aspects of Disasters This course explores the psychological sequelae of disasters and traumatic events including acute stress disorder and posttraumatic stress disorder. The clinical presentation, assessment and management of these disorders are discussed. Clinical interventions such as post-event debriefing, short-term counseling and mental health referral in disaster situations are also covered. This course includes an intensive on-campus experience. Offered in Summer 1 only.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Lab, Lecture, On-Line**DMM 639: Prin of Disaster Exce & Drills**

Principles of Disaster Exercises & Drills This course will prepare students to develop and implement effective emergency disaster drills and tabletop exercises. It will also encompass the principles of mass casualty triage. The principles of adult learning and educational assessment are also covered. This course includes an intensive on-campus experience. Offered in Summer 1 only

Credits: 3**College:** Jefferson College of Health Professions**Prerequisites:** DMM 611 or DMM 610 [Min Grade: C]**Schedule Type:** Lab, Lecture, On-Line**DMM 640: Logistic Mgmt for Disasters**

By applying logistics, financial and supply chain principles to actual disaster and humanitarian events during the last 25 years, students will focus on what preparedness actions are necessary to ensure the adequacy of supplies and goods to citizens and emergency personnel during a disaster event. The basic principles for supply chain management for healthcare will also be reviewed. An examination of both US and international incidents will focus on planning and response. Further, we will discuss the roles of governments in delivery of logistics assistance, and the functions of Non-Governmental Organizations (NGO) in these processes.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, On-Line**DMM 643: Public Health ImplOf Disasters**

Public Health Implications of Disasters The purpose of this course is to develop an understanding of the concepts of public health as they relate to disaster management. The student will apply Noji's five phases of a disaster to actual disaster events during the last 25 years and will focus especially on what preparedness actions are necessary to safeguard the health of citizens and emergency personnel during a disaster event. Public health issues in disaster management that are covered include water and food supply disruption and contamination, waste disposal, environmental pollution and infectious disease outbreaks. The basic principles of epidemiology and health surveillance are also reviewed.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Hybrid, Lecture, On-Line**DMM 647: Disaster Emergency Planning****Credits:** 3**College:** Jefferson College of Health Professions**Prerequisites:** DMM 611 [Min Grade: C]**Schedule Type:** Hybrid, On-Line**DMM 648: Emergency Preparedness**

Emergency Preparedness for Special Needs Population The term ? special needs? is widely used within the disaster services and the emergency management world. It generally refers to an extremely broad group of people with physical disabilities, people with serious mental illness, pregnant women, children, and the elderly. These groups represent a large and complex variety of concerns and challenges. Many of these groups have little in common beyond the fact that they are often left out of programs, services, and emergency planning. This course will introduce students to planning, responding, mitigating, and recovering from a disaster as it pertains to the special needs population. This will include specific functional roles, resource identification and response of personnel involved in disaster management. Students will be presented with problem based learning assignments and based on the assigned readings, research, and personal experiences, they will be able to analyze and apply the theories and principals pertaining to the response and recovery of an event to these special populations.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, On-Line**DMM 649: Healthcare Emergency Mgmt.**

Healthcare emergency management has steadily evolved over decades but at an increased rate since September 11, 2001. The increased emphasis on disaster preparedness from both the public as well as regulatory agencies now requires a level of knowledge beyond the technical level. This course is designed to provide a foundation in hospital emergency preparedness.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, On-Line**DMM 651: Appl Research Meth & Statistic**

Applied Research Methods & Statistics Basic statistics and research methods used in the medical and social sciences are covered in this course. Students will have the opportunity to review current medical research and evaluate it with regard to its application to practice.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Hybrid, Lecture, On-Line

DMM 653: Clinical Disaster Medicine

This course is designed to expose the student to the clinical aspects of disaster medicine by encouraging exploration of the roles of healthcare providers in disasters, the study of clinical situations that occur during disasters, analysis of public, occupational, and environmental health issues, and applying clinical research and epidemiology concepts.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, On-Line**DMM 755: Cap Exp in Disaster Med & Mgmt**

Capstone Experience in Disaster Medicine and Management In this capstone experience students will complete either an: original research project; an original disaster plan; a systematic review paper on a disaster-related topic with thorough literature search, analysis and compilation; or an internship with disaster plan. All of these will involve a thorough literature search, an analysis of the current research, integration of multiple facets of disaster medicine and management and completion of a substantial written product.

Credits: 3**College:** Jefferson College of Health Professions**Prerequisites:** (DMM 611 or DMM 610) and DMM 631 and (DMM 647 or DMM 640) [Min Grade: C]**Schedule Type:** Lecture, On-Line**DMM 755E: Cap Exp in Disaster Med & Mgmt****Credits:** 3**College:** Jefferson College of Health Professions**Prerequisites:** DMM 755 [Min Grade: TH]**Schedule Type:** Lecture, On-Line**DMM 791: Internship Disaster Med & Mgmt**

Internship in Disaster Medicine and Management This experience is an optional internship in disaster medicine or management at an agency involved in disaster preparedness or response. This may include international experiences when available.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Internship 3 Credits**DMM 797: Special Topics in DMM**

Special Topics in Disaster Medicine and Management This course provides an opportunity to explore topics in disaster medicine and management not developed in other courses. Examples include recent complex humanitarian emergencies, disasters, or catastrophes, new practice technology, essential health policy changes, new research findings, and other cutting edge materials. Students may take this course more than once as the topics differ each time it is offered.

Credits: 3**College:** Jefferson College of Health Professions**Prerequisites:** DMM 611 or DMM 610 [Min Grade: C]**Schedule Type:** By Appointment - 1 student, Independent Study, Lecture, On-Line

Diversity (DIVR)

DIVR 500: Bus Imper of Div & Sys Think**Credits:** 3**College:** Institute for Emerging Health Professions**Schedule Type:** On-Line**DIVR 520: Cultural Change&Mgmt Outcomes****Credits:** 3**College:** Institute for Emerging Health Professions**Schedule Type:** On-Line**DIVR 550: Multidisc Collab&Communication****Credits:** 3**College:** Institute for Emerging Health Professions**Schedule Type:** On-Line**DIVR 660: Multidisc Collab&Communication****Credits:** 3**College:** Institute for Emerging Health Professions**Schedule Type:** On-Line

Doctor Strategic Leadership (DSL)

DSL 700: S/Leadershp,Framework,Concepts

This course introduces theories, models and practices of strategic leadership. Students examine and discuss their own and others' epistemologies of leadership and organizational thinking and practice using analytic, systemic, cultural, religious, and value-based lenses. Students act as facilitators and consultants for a client-supported leadership development project.

Credits: 3**College:** School of Business**Schedule Type:** Lecture**DSL 701: Systems and Design Thinking**

This course introduces concepts and methodologies appropriate to business model innovation in our complex world. Every organization has a business model whether or not explicitly stated. It is a framework of creating value that includes a broad range of formal and informal aspects including its purpose, offerings, strategies, infrastructure, organizational structures, transacting practices, and operational processes and policies. An exceptional business model will frequently prove more important in an organization's success than excellent operations and or products and services.

Credits: 3**College:** School of Business**Schedule Type:** Lecture, On-Line**DSL 702: Applied Research Methods I**

The course proceeds on three tracks: (1) basic academic skills needed to competently evaluate and conduct research - quantitative, qualitative, laboratory and field; (2) basic academic understanding to effectively evaluate research and knowledge; and (3) guidance toward helping you develop a professional niche and embark on your own research projects.

Credits: 3**College:** School of Business**Schedule Type:** Lecture**DSL 703: Military & Civilian S/Leadersh**

This course reviews and discusses the psychological, emotional and cognitive elements within various military and civilian leadership models from the perspectives of the individual, group and organization.

Credits: 3**College:** School of Business**Schedule Type:** Lecture

DSL 704: Complex Proj Leadership & Mgmt

This course covers the range from fundamental to complex project management and project leadership. The objective of this course is to introduce and reinforce the traditional approach, principles, tools and techniques of planning for, managing and leading projects, as well as to provide a systems framework and methodologies for planning for, managing and leading complex projects.

Credits: 3

College: School of Business

Schedule Type: Lecture

DSL 705: Enabling Info Techn and Tools

This project-based, team oriented course provides a methodology for implementing enabling information technologies and tools that add value to organizations. It addresses the application of crowd sourcing, social computing, cloud computing and analytics to make better leadership decisions and to improve organizational performance.

Credits: 3

College: School of Business

Schedule Type: Lecture

DSL 706: Applied Research Methods II

Credits: 3

College: School of Business

Schedule Type: Lecture

DSL 707: Strategic Ldrsp Perspective

The purpose of this course is to introduce and enable students to apply to their organizational challenges the Theory of constraints (TOC). TOC is a systems thinking methodology based on the idea that the apparent complexity of a situation can be resolved if the constraint or rate limiting step to improved performance can be identified. The methodology has two prongs; one focused on flow systems as found in manufacturing and in supply chains, and one focused on problem mapping through which a set of symptoms or "undesirable effects" are linked to a few core conflicts. Each prong presupposes that apparent complexity can be reduced by scrutinizing the causal structure of any system. Behind complexity lies simplicity.

Credits: 3

College: School of Business

Schedule Type: Lecture

DSL 708: Strategic Org Dev & Change

This course introduces theories, models and practices of strategic organization development and change. We will review the research on successful organizational change and its link to organization strategy through the lens of organizational systems. We will also explore our own beliefs and experiences about organizational change, how it happens, what makes for success, and what leadership practices contribute to outcomes.

Credits: 3

College: School of Business

Schedule Type: Lecture

DSL 709: Lding in the Digital Trans Age

Increasingly rapid rates of environmental, technological and demographic changes are shifting the relationship between people, workplaces and production activities. In this evolving digital economy, business value is derived from the ability to leverage new technologies to transform the way business is conducted. Smart, configurable, on-demand workspaces, tool networks, intelligent machines, data analytics and immersive virtual presence capabilities are automating work and augmenting individual and collective abilities. Increasingly in this context, mixed global workforces comprised of permanent and contingent human and machine labor form dynamic and adaptive team structures to generate social, environmental and financial value. Learning agility, entrepreneurial risk and collaborative capability are required cultural characteristics for successful organizational outcomes. This project-based course will introduce theories, tools and practices for leading in the digital transformation era in which individuals, organizations and industries are progressing unevenly towards digital mastery. The course will predominantly utilize immersive collaboration and learning technologies to illustrate how digital tools transform work. A 3D immersive classroom environment will provide students basic experience with distributed online project work, collaborative tool ecosystems, and effective leadership practices for new ways of working.

Credits: 3

College: School of Business

Schedule Type: Lecture

DSL 710: Independent Advanced Study

This course supports the student's independent exploration of topics related to strategic leadership, theory, organization development, practice, and/or evaluation. Students will augment their knowledge and skills in a particular topic area by appropriate methods such as exploring the literature, interviewing experts, and/or engaging in research and/or development activities. The actual content and method(s) will be approved by a faculty supervisor and/or mentor and directed by the student. Students will demonstrate a series of competencies in an area of interest as the primary outcome of this course.

Credits: 3

College: School of Business

Schedule Type: By Appointment - 1 student, By Appointment, Independent Study, Lecture

DSL 711: Special Topics

This course will introduce theories, tools and practices for leading in the digital transformation era in which individuals, organizations and industries are progressing unevenly towards digital mastery. The course will predominantly utilize immersive collaboration and learning technologies to illustrate how digital tools transform work. A 3D immersive classroom environment will provide students basic experience with distributed online project work, collaborative tool ecosystems, and effective leadership practices for new ways of working.

Credits: 3

College: School of Business

Schedule Type: Independent Study, Lecture

DSL 712: Strategic Interactive Planning

This course concerns a specific form of strategic planning appropriate for organizations operating in complex contexts and environments. This distinctive approach is prospective, informed by systems and design thinking, and is stakeholder-community-based in that it includes that direct involvement of those who hold a stake (i.e., are the stakeholders) in the organization seeking a strategic plan. The course follows a set of project steps beginning with contracting with the client and collaborative project planning, and ending with delivery of the strategic plan. The course does not include plan implementation.

Credits: 3**College:** School of Business**Schedule Type:** Lecture, On-Line**DSL 713: Patterns of Strategy**

The purpose of this course is to provide students with a comprehensive introduction to strategic thinking and to strategy formulation and execution. A broad range of common patterns of strategy are examined and guidelines are provided on when, why and how to apply them. The course takes a systemic approach to strategy, considering it as a dynamic, adaptive process that influences and is influenced by the multiple critical relationships the organization has in the wider environment in which it operates. Particular attention is paid to understanding the benefits and pitfalls of both collaborative and competitive strategies and the trade-offs they imply. A general four-step model is proposed for implementing strategy and ensuring effective execution.

Credits: 3**College:** School of Business**Schedule Type:** Lecture**DSL 714: Applied Survey Research Methods**

The aim of this course is to provide participants with a comprehensive understanding of survey research methods. The course syllabus covers every stage of the survey process, from design to analysis. For participants who plan to design and carry out their own survey, this course provides the practical and theoretical tools that are needed to produce high quality survey data. For participants who plan to analyze these data, or data from pre-existing social surveys, it will provide the applied knowledge and skills that are required to produce high quality research.

Credits: 3**College:** School of Business**Schedule Type:** Lecture**DSL 800: Strategic Consulting**

The purpose of this process consulting-focused project-based course is to enable leader-consultants to help organizations address their complex problems. Organizations enter into an explicit or tacit educational partnership with DSL and/or DSL students with a challenge and expectations that their project will be mostly completed by the end of the semester although some continue longer. Students participate in all consulting projects but tend to focus on one by joining a project team. Activities include organizational system diagnosis, planning, designing, and implementation.

Credits: 3**College:** School of Business**Schedule Type:** Lecture**DSL 801: Strategic Leadership Research**

This course has three purposes. One is to support the student's independent exploration of an applied strategic leadership research topic related to theory, development, design, practice, opportunity, and/or evaluation. The second is to build information and knowledge, and to contribute to the literature review requirement of the doctoral dissertation/capstone. The third is to assist students in structuring a project plan to complete their dissertation/capstone. Students will augment their knowledge and skills in a topic area by appropriate methods such as exploring the literature, interviewing, and/or engaging in research, design, and/or development activities. The actual content and method(s) will be approved by a DSL faculty supervisor and/or mentor but directed by the student. Students will demonstrate a series of strategic leadership research competencies in an area of interest as the primary outcome of this course.

Credits: 3**College:** School of Business**Schedule Type:** Independent Study, Lecture, On-Line**DSL 802: Strat Leadership Executive Ed.**

This course has two purposes. One is to support the student's independent exploration and understanding of strategic leadership executive education to support leadership development and leadership emergence in an organizational context. Another is to build information and knowledge, and to contribute to the applied scholarship of the doctoral dissertation/capstone. Students will augment their knowledge and skills in a topic area by (1) selecting or identifying a leadership development problem or opportunity, (2) identifying and confirming an organizational context or host, (3) designing and developing an education or training curriculum including learning objectives, (4) creating and delivering the content drawn from the curriculum using a channel appropriate to the topic and organization context, and (5) evaluating the outcomes of the executive education to address the problem or opportunity for which it was created and delivered. A DSL faculty supervisor and/or mentor will approve the design and deliverables but the student will direct and conduct the work. Students will demonstrate strategic leadership executive education competencies in an area of interest as the primary outcome of this course.

Credits: 3**College:** School of Business**Schedule Type:** Lecture, On-Line

Emergency & Disaster Mgmt (EDM)

EDM 610: Foundations in Emergency Mgmt

This course provides participants with a general overview of disaster events and covers the key components of disaster prevention, risk assessment and disaster management including: types of disasters, phases of disasters (preparedness, mitigation, response, and recovery), a brief history of disaster management in the US, agencies involved in disaster situations, public service disruptions and actions, the FEMA Whole Community concept, resilience, media relations, incident command systems and mass casualty triage. We focus on the practical application of management principles including the development of key tools including the emergency operations plan and the THIRA.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Hybrid, Lecture, On-Line

EDM 611: Prin of Disaster Med & Mgmt**Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Hybrid, Lecture, On-Line**EDM 612: Fnds in Homeland Sec. & Def.**

The US has embraced the homeland security monolith having neither fully understood nor tamed all that it encompasses. This challenging course provides a broad overview of homeland security and homeland defense as undertaken in the United States since 9/11. The goal is to provide the generally accepted body of knowledge required of the homeland security professional. The course focuses on four areas: the enemy, animosity and potential outcomes of threats posed; the policies and procedures enacted since 9/11; federal, state and local governmental roles; and legal issues critical to the conduct of homeland security and defense activities by the military including the National Guard. The student will gain an understanding in asymmetric thinking, develop an appreciation for the growing body of literature in the discipline of homeland security, and have the opportunity to examine a key issue in depth through a term research paper.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Hybrid, Lecture, On-Line**EDM 613: Intl & Humanita Disaster Mgmt**

International and humanitarian disaster management has steadily evolved over decades. The increased emphasis on global disaster preparedness from both governmental and private sectors has widespread application across all borders. Through the exploration of disaster models, public health, principles, economic, social and political elements, students will explore the application of the disaster cycle.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, On-Line**EDM 615: Hazardous Materls & Ind Saftey**

Hazardous Materials & Industrial Safety This course provides an overview of the major hazardous materials commonly encountered and their effects on humans and wildlife. Industrial waste, pollution, nuclear waste, hazardous waste transportation and the management of hazardous material accidents are all covered.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Hybrid, Lecture, On-Line**EDM 617: GIS in Emergency Management**

This course will provide students with an introduction into geographic information systems by infusing it into emergency management. The class will focus on the 3 major elements: 1) Fundamentals of GIS, 2) Knowledge of GIS software, and the 3) Understanding of the spatiality in emergency management situations.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Hybrid, Lecture, On-Line**EDM 619: Natural Disasters**

The purpose of this course is to develop an understanding of the various types of natural disasters which plague the world. The student will study the forces of nature which cause these events to occur, the population effects of the event itself and the dynamic nature by which the event spawns further cataclysmic change in our environment.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Hybrid, Lecture, On-Line**EDM 623: Weapons of Mass Destruction**

Weapons of Mass Destruction This course introduces students to the various types of biologic, chemical and nuclear/radiologic weapons, along with the clinical manifestations and management of exposure to these. Decontamination and institutional procedures for weapons of mass destruction incident management are also covered.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Hybrid, Lecture, On-Line**EDM 624: Org Risk and Crisis Mgmt**

This course examines key concepts in the understanding and management of risk in an organizational environment. Aspects of risk evolution, tools and techniques, project vulnerabilities, uncertainty, modeling and risk software are included.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Hybrid, Lecture, On-Line**EDM 625: Bus Continuity-Plan for Crisis**

The course explores the issues in maintaining a business in the midst of crisis and the disruption of resources. It includes planning for, responding to, and recovering from an internal or external crisis in the organization.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Hybrid, Lecture, On-Line**EDM 626: Org. Recovery Prep and Plan**

This course discusses business and organizational implications of the disaster recovery lessons taught by 9/11, the California energy crisis, the anthrax scare and other related disastrous events as they relate to emergency decision making and planning. Special emphasis is directed toward infrastructure and IT/IS implications of process continuation.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Hybrid, Lecture, On-Line**EDM 627: Principles of Terrorism****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Hybrid, Lecture, On-Line**EDM 631: Org Mgmt & Comm in Disasters**

This course introduces students to theories of organizational dynamics and management as it pertains to crisis and disaster situations. The course also explores communication within the organization, with external agencies, and with the public and media during and after disaster events.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Hybrid, Lecture, On-Line**EDM 635: Pysch Aspects of Disasters**

This course explores the psychological sequelae of disasters and traumatic events including acute stress disorder and posttraumatic stress disorder. The clinical presentation, assessment and management of these disorders are discussed. Clinical interventions such as post-event debriefing, short-term counseling and mental health referral in disaster situations are also covered. This course includes an intensive on-campus experience.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Hybrid, Lecture, On-Line

EDM 639: Prin of Disaster Exce & Drills

This course will prepare students to develop and implement effective emergency disaster drills and tabletop exercises. It will also encompass the principles of mass casualty triage. The principles of adult learning and educational assessment are also covered. This course includes an intensive on-campus experience.

Credits: 3**College:** Jefferson College of Health Professions**Prerequisites:** DMM 611 or EDM 611 or DMM 610 or EDM 610 [Min Grade: C]**Schedule Type:** Hybrid, Lecture, On-Line**EDM 640: Logistic Mgmt for Disasters**

By applying logistics, financial and supply chain principles to actual disaster and humanitarian events during the last 25 years, students will focus on what preparedness actions are necessary to ensure the adequacy of supplies and goods to citizens and emergency personnel during a disaster event. The basic principles for supply chain management for healthcare will also be reviewed. An examination of both US and international incidents will focus on planning and response. Further, we will discuss the roles of governments in delivery of logistics assistance, and the functions of Non-Governmental Organizations (NGO) in these processes.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Hybrid, Lecture, On-Line**EDM 643: Public Health ImplOf Disasters**

The purpose of this course is to develop an understanding of the concepts of public health as they relate to disaster management. The student will apply Noji's five phases of a disaster to actual disaster events during the last 25 years and will focus especially on what preparedness actions are necessary to safeguard the health of citizens and emergency personnel during a disaster event. Public health issues in disaster management that are covered include water and food supply disruption and contamination, waste disposal, environmental pollution and infectious disease outbreaks. The basic principles of epidemiology and health surveillance are also reviewed.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Hybrid, Lecture, On-Line**EDM 647: Disaster Emergency Planning****Credits:** 3**College:** Jefferson College of Health Professions**Prerequisites:** DMM 611 or EDM 611 [Min Grade: C]**Schedule Type:** Hybrid, Lecture, On-Line**EDM 648: Emergency Preparedness**

The term 'special needs' is widely used within the disaster services and the emergency management world. It generally refers to an extremely broad group of people with physical disabilities, people with serious mental illness, pregnant women, children, and the elderly. These groups represent a large and complex variety of concerns and challenges. Many of these groups have little in common beyond the fact that they are often left out of programs, services, and emergency planning. This course will introduce students to planning, responding, mitigating, and recovering from a disaster as it pertains to the special needs population. This will include specific functional roles, resource identification and response of personnel involved in disaster management. Students will be presented with problem based learning assignments and based on the assigned readings, research, and personal experiences, they will be able to analyze and apply the theories and principals pertaining to the response and recovery of an event to these special populations.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Hybrid, Lecture, On-Line**EDM 649: Healthcare Emergency Mgmt.**

Healthcare emergency management has steadily evolved over decades but at an increased rate since September 11, 2001. The increased emphasis on disaster preparedness from both the public as well as regulatory agencies now requires a level of knowledge beyond the technical level. This course is designed to provide a foundation in hospital emergency preparedness.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Hybrid, Lecture, On-Line**EDM 651: Appl Research Meth & Statistic**

Applied Research Methods & Statistics Basic statistics and research methods used in the medical and social sciences are covered in this course. Students will have the opportunity to review current medical research and evaluate it with regard to its application to practice.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Hybrid, Lecture, On-Line**EDM 653: Clinical Disaster Medicine**

This course is designed to expose the student to the clinical aspects of disaster medicine by encouraging exploration of the roles of healthcare providers in disasters, the study of clinical situations that occur during disasters, analysis of public, occupational, and environmental health issues, and applying clinical research and epidemiology concepts.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Hybrid, Lecture, On-Line**EDM 700: EDM Conference**

This course will provide students with the opportunity to practice and refine the basic emergency management skills learned in the foundational courses. The multiday conference week requires full participation and engagement as you demonstrate your grasp of concepts. This experience must be registered for in conjunction with EDM 639 and is only offered in the Summer term.

Credits: 0**College:** Jefferson College of Health Professions**Prerequisites:** DMM 610 or EDM 610 [Min Grade: C]**Corequisites:** EDM 639**Schedule Type:** Lecture

EDM 755: Cap Exp in Disaster Med & Mgmt

In this capstone experience students will complete either an: original research project; an original disaster plan; a systematic review paper on a disaster-related topic with thorough literature search, analysis and compilation; or an internship with disaster plan. All of these will involve a thorough literature search, an analysis of the current research, integration of multiple facets of disaster medicine and management and completion of a substantial written product.

Credits: 3

College: Jefferson College of Health Professions

Prerequisites: (DMM 611 or DMM 610 or EDM 611) and (DMM 631 or EDM 631) and (DMM 647 or DMM 640 or EDM 647 or EDM 640) [Min Grade: C]

Schedule Type: Hybrid, Lecture, On-Line

EDM 755E: Cap Exp in Disaster Med & Mgmt

Credits: 3

College: Jefferson College of Health Professions

Prerequisites: DMM 755 or EDM 755 [Min Grade: TH]

Schedule Type: Hybrid, Lecture, On-Line

EDM 791: Internship Disaster Med & Mgmt

Internship in Disaster Medicine and Management This experience is an optional internship in disaster medicine or management at an agency involved in disaster preparedness or response. This may include international experiences when available.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Hybrid, Internship 3 Credits, Lecture, On-Line

EDM 797: Special Topics in DMM

This course provides an opportunity to explore topics in disaster medicine and management not developed in other courses. Examples include recent complex humanitarian emergencies, disasters, or catastrophes, new practice technology, essential health policy changes, new research findings, and other cutting edge materials. Students may take this course more than once as the topics differ each time it is offered.

Credits: 3

College: Jefferson College of Health Professions

Prerequisites: DMM 611 or DMM 610 or EDM 611 or EDM 610 [Min Grade: C]

Schedule Type: By Appointment - 1 student, Hybrid, Lecture, On-Line

Engineering (ENGR)

ENGR 500: Intro to Polymer Material Sci

This course will explore fundamental process-structure-property-performance relationships in polymers and their hybrids. Topics include mechanical properties, manufacturing processes, chain structure, polymer synthesis, molecular weight, crystallinity, rubber elasticity, viscoelasticity, and cross-linking. Laboratory demonstrations will reinforce basic lecture concepts. Finally, students will use Ansys Granta Edupack software in projects to make polymer selections for specific applications and perform "eco-audits" to explore life cycle impacts. Biodegradation and compostability will also be discussed in the context of natural and sustainable biopolymers.

Credits: 3

College: School of Design & Engineering

Prerequisites: ENGR 210 [Min Grade: D]

Schedule Type: Lecture

ENGR 600: Bioanalytical Reg/Qual Princip

This master level course will introduce the students to the concepts and requirements for global pharmaceutical quality and regulatory compliance associated with approval of a new biologic and biosimilar. The FDA's concepts of Quality by Design (QBD), Process Analytical Technology (PAT) and Critical Quality Attributes (CQAs) (product and process) will be through case studies and examples to provide the foundation for ensuring that product quality, safety and efficacy are built into process during design and not introduced as an afterthought. This introductory course provides the basic principles of QBD, PAT and CQAs using case studies and definition and terms relevant to understanding how a modern biopharmaceutical products are developed and marketed in a highly regulated environment.

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture

ENGR 601: Intro Upstream Unit Operations

This advanced level course is focused on the application of principles of cell culture operations in fed-batch and perfusion bioreactors from bench scale to production scale. Students will be introduced to design, scale up and scale down approaches through case studies, hands-on laboratory studies, seminars, individual and group projects and formal class lectures. Examples will include cell culture operations used to produce biopharmaceutical medicine including peptides, proteins and monoclonal antibodies for variety of diseases including cancers, diabetes, rheumatoid arthritis, scoliosis, to name but a few. Prerequisites: (Course XXX-XX for science track and Course XXX-XX for engineering track students)

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture/Lab

ENGR 602: Intro Downstream Unit Ops

This master level course introduces students to the first principles and application of preparative chromatography for downstream purification as well as other key unit operations including tangential flow filtration (TFF) for product formulation and concentration. Students will be introduced to design, scale up and scale down approaches through case studies, hands-on laboratory studies, seminars, individual and group projects and formal class lectures. Examples will include industrial operations used to produce biopharmaceutical medicine including peptides, proteins and monoclonal antibodies for variety of diseases including cancers, diabetes, rheumatoid arthritis, scoliosis, to name but a few.

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture/Lab

ENGR 603: Appl Math & Stat Mtds in Bio

This master level course is designed to give participants the basic knowledge and confidence in the practical design and realistic analysis of data within the contexts of bioprocess research and development and Biomanufacturing. Students will gain basic experience in displaying, summarizing, analyzing and interpreting bioprocessing data using standard mathematical and statistical methods. At the end of this course students will understand the statistical concepts of bias, variability, and sampling distributions, be able to select the appropriate statistical method for a given data set, evaluate the quality of data collected from observational and experimental studies, design simple studies, use statistical computer software to explore and analyze data, understand statistical language as used in bioprocess development and biomanufacturing, and lastly, interpret statistical results and communicate them to other scientists and engineers.

Credits: 1.5**College:** School of Design & Engineering**Schedule Type:** Lecture, On-Line**ENGR 604: Biopharm Process Ops**

This masters level hands-on course provides practical firsthand experience with many of the techniques and principles taught in the complimentary lecture courses in upstream and downstream operations. The experiments are designed to teach students a broad understanding of key unit operations and the challenges of working in a Good Manufacturing Practice-like (GMP-like) environment. The focus of the course will include technical aspects, documentation, batch record keeping and reporting of data. Major operations will include downstream bio-separation techniques, including chromatography, tangential flow and depth filtration, as well as upstream operations including seeding and bioreactor utilization. As a result, students will gain a thorough understanding of unit operations performed in a GMP setting.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture/Lab**ENGR 605: QbD, Proc Sel & Optimization**

This master level course introduces students to the concepts of quality-by-design (QbD) and its application specifically to biopharma and biomanufacturing through contextual examples, case studies, seminars, lecture and team work projects. As the attributes of biopharmaceutical and biologic products are poorly understood early in process design and development, often times these products are defined by their manufacturing processes which are often not fully characterized in first generation manufacturing. QbD is a systematic scientific, risk-based, holistic and proactive approach to biopharmaceutical development. This approach to biopharmaceutical development adopts a deliberate design effort from product conception through commercialization with a full understanding of how product critical quality attributes (CQAs) and process parameters impact safety, efficacy, and performance.

Credits: 1.5**College:** School of Design & Engineering**Schedule Type:** Lecture/Lab, On-Line**ENGR 606: Proc Charac & Validation**

This master level course introduces students to the concepts of tech transfer, process characterization and risk-based validation specifically in the contexts of manufacturing of biopharmaceuticals and biologics. The course will be delivered through examples, case studies seminars and class lectures and team work projects. Process Characterization and process validation are major components within FDA's regulatory expectation for product approval. This course is intended to introduce the students to regulatory guidelines, recommended techniques and expectations through good practice and well established tools developed over the past two decades by regulatory and bio manufacturers.

Credits: 1.5**College:** School of Design & Engineering**Schedule Type:** Lecture, On-Line**ENGR 607: Bus & Entr in Life Sciences**

This master level course is designed to train students in entrepreneurial leadership in biopharmaceutical-based industries. The course consists of two elements. The first element focuses on the practical application of preparing a business plan for new ventures. This component centers on bioprocessing of new products and their potential translation into real-world outcomes through a viable business. The second element is designed to introduce the students to the key aspects of implementing the objectives of a business plan once appropriate funding has been obtained. Legacy and next generation biologics including stem cells, gene therapy, tissue engineering and regenerative medicine are proving exceptionally efficacious. As a result, the market is growing and new companies are being created at incredibly fast rates. In this course, students will be given basic understanding of the challenges and opportunities in developing a new company for the creation of biopharmaceutical grade products based on these emerging discoveries.

Credits: 1.5**College:** School of Design & Engineering**Schedule Type:** Lecture, On-Line

ENGR 608: Capstone Design Project

The Capstone course may be taken as a team design project or alternatively, and where appropriate as an independent bioprocess research and development (BR&D) project. In both cases the course is thesis-based and the focus will be projects in biopharmaceutical processing and Biomanufacturing operations. Students taking the design project will work under supervision in small teams to design, for example, a complete biomanufacturing plant capable of producing commercial quantities of an API or DP. Each team will work on a separate and specific project leading to a process design. Typical examples include manufacturing of insulin, human growth hormone, tissue plasminogen activator, monoclonal antibodies for cancers, and autoimmune diseases. Students will evaluate potential commercial opportunities and manufacturing options, selecting the expression system, designing the upstream operations, from vial to production bioreactor, harvesting and downstream purification sequence of operations. A detailed literature survey will be included to understand the best industry practices. Team discussion and consultation with subject matter experts within JIB and with external companies will then be followed leading to specification of the purity profile for the product. This is then followed by preparation of detailed engineering flow sheet that includes each unit operation. Selection and sizing of each equipment for each unit operation will then be carried to meet a specified annual demand for the product. Finally an economic evaluation of the process will be carried out to evaluate the cost of good and potential pricing of the product. The final design will be evaluated and interpreted using available simulation and modelling techniques. A group report and individual report will be presented by each student in the team. A student or small group of students taking the BR&D option will work with one or more faculty members on a project which may include a specific unit operation or an integration of operations. Typical projects include, but are not limited to, continuous bioprocessing, cell line development and optimization, media optimization, scale-down model development, CFD modeling of bioprocess operations. Where possible and to add value, preference will be given to projects are industry sponsored. Students are required to report their results regularly (weekly or biweekly) to their supervisors. Students on both tracks (Design and BR&D) are required to submit and defend their final report, create and present a poster based on the results of their work and give a public (open) power-point presentation. If and when required, for example in the case of an industry sponsored projects, students will be required to obtain the necessary approval form their sponsoring companies for open presentations.

Credits: 6**College:** School of Design & Engineering**Schedule Type:** Lecture/Lab**ENGR 609: Bioprocess Engineering for Sci**

This master level course introduces students to the basic underlying transport processes of momentum, mass and heat transfer pertinent to biopharmaceutical process development. The course will demonstrate the power of mathematical techniques, modeling and statistical methods to resolve practical issues in a biomanufacturing setting. The course is experiential and includes project work, seminars, workshops and formal class room presentations and discussions to illustrate concepts.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture, On-Line**ENGR 610: Basic Life Sci for Engineers**

This master level course introduces students with first degrees in engineering and related disciplines to underlying principles and applications of key concepts in microbiology, biochemistry, and biology to highlight the importance of cells, genes and proteins as the basis of disease and as therapeutics. The course will cover basic recombinant DNA technology as used in the production of therapeutic proteins and monoclonal antibodies. The course will cover basic properties of amino acids, peptides, proteins and monoclonal antibodies, structure-function of proteins and DNA, and cellular reactions involved in cell growth and metabolism, translation, transcription, and replication. Topics will cover different expression systems, basic design of vectors, cell transfection and protein expression and associated analytical methods and techniques. The course is experiential and includes project work, seminars, workshops and formal class room presentations and discussions and group work to illustrate concepts.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture, On-Line**ENGR 611: Princ BioPharm Proc Engineerin**

This master level course introduces students to the basic methods and techniques used in industry for the manufacture of biopharmaceuticals and biologics. The intent is to introduce the students to the challenges as well as opportunities in bioprocess development of a new biologic with the focus specifically in this course on developing a process flow diagram for a molecule in early phase development and using quality-by-design and risk-based management to optimize it for late phase clinical and launch. Students will work in small groups under JIB faculty/staff supervision to define, a process and create flow diagram and plan a series of studies for execution, report and present their plan in written and oral (presentational) format. By delivering the course outcomes, students will learn how bioprocess development of biologics fits into biomanufacturing and the challenges of taking discoveries from research to market. Specific examples including peptides, proteins and monoclonal antibodies for diseases including cancers, diabetes, rheumatoid arthritis's, Alzheimer's, heart-related diseases and many more. Students will be introduced to real world examples using process history and development of commercial biologics to provide the basis for a "phase appropriate" approach to process development in biomanufacturing and why in the case of biologics, the process is the product.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture**ENGR 612: Emerging Therapeutics**

This course focuses on the on-going development and history of advanced bio-therapeutics ranging from recombinant antigen-based vaccines to genetic-based vaccines, and from protein replacement biotherapeutics to next generation immuno-therapeutics based on cell and gene therapy. Through specific examples, and case studies this course follows recent and on-going product and process developments in emerging therapeutics to help understand technical and economic challenges associated with the launch of new products. The course will also consider new collaborative opportunities to mitigate these challenges, while increasing the chances of success, including new partnerships (academic-industry-government agencies) aimed at spreading cost, reducing risk, and increasing efficiency.

Credits: 1.5**College:** School of Design & Engineering**Schedule Type:** Lecture

ENGR 613: Vector & Cell Line Design

This course focuses on providing the foundational education for students who wish to focus their careers in cell line engineering and development, cloning operations, and construct / vector design. Individuals attending this course gain fundamental knowledge of the latest, most advanced cloning strategies vital to cell line development for protein and vaccine production, including verification and sequence analysis of the gene and protein of interest, codon optimization, vector construction, and clone / host cell selection and engineering.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture**ENGR 614: Vaccine Formulation**

Several vaccine formulation technologies are available, including liquid, lyophilized, oil-in-water emulsion, water-in-oil emulsion, liposomal and nanoparticle, all of which may include adjuvants. If selected and formulated correctly adjuvants can dramatically enhance the effectiveness of the active pharmaceutical ingredient (API), causing a reduction in dose required to elicit an immune response. Adjuvants are often used for their dose-sparing potential, but the development of adjuvants and their use in vaccine formulation remains more of an art than a science. This course focuses on the development of formulation strategies for therapeutic and preventive vaccines and is crucial to the understanding of advanced vaccine manufacturing and development.

Credits: 1.5**College:** School of Design & Engineering**Schedule Type:** Lecture**ENGR 615: Biologics & Biosimilars**

In order to design and produce biologics and biosimilars, in-depth knowledge of the regulatory requirements and underlying biological principles related to molecule identity and production are required. This course addresses these issues through an exploration of key concepts in microbiology, biochemistry and biology, with an emphasis on their importance to the verification of the identity of a therapeutic molecule and the various regulations required to do so. To highlight the importance of the production process, recombinant DNA technology with an emphasis on the basic design of vectors, cell transfection, protein expression and associated analytical methods and techniques will also be addressed. The course is experiential and includes project work, hands-on activities, formal class room presentations and group work to illustrate concepts.

Credits: 1.5**College:** School of Design & Engineering**Schedule Type:** Lecture**ENGR 616: CMC & Pharm Good ManuPractices**

The underlying principles and application of Chemistry, Manufacturing, Control (CMC) and Pharmaceutical Good Manufacturing Practices (GMP) are key aspects in the production of biologics and biosimilars. Their utilization enables the identification of key molecule-based issues early in the development process and provides sufficient information to assure the identity, quality, purity, strength, and stability of the drug product to meet regulatory requirements and specifications. This course provides participants with the knowledge and expertise required to utilize CMC and GMP to design GMP analytical packages to demonstrate a consistent and reliable manufacturing process. These concepts will also be applied to formulation development followed by clinical trial supply manufacturing that is both fully GMP compliant and monitors all areas of risk to ensure product quality.

Credits: 1.5**College:** School of Design & Engineering**Schedule Type:** Lecture**ENGR 617: Quality Systems for Reg Compl**

A comprehensive understanding of the underlying principles and applications of key concepts in pharmaceutical quality systems is paramount to the production of safe and efficacious therapeutics. This course is designed to train students on the utilization of Quality Management System (QMS) in a GMP environment and the maintenance of pharmaceutical quality. The course will focus on the internationally harmonized guidance ICH Q 10, with an emphasis on quality tools and techniques used in a GMP pharmaceutical environment to ensure the quality of the pharmaceutical product with a focus on patient safety.

Credits: 1.5**College:** School of Design & Engineering**Schedule Type:** Lecture**ENGR 618: Tech & Regulatory Aspects**

A fundamental biopharmaceutical QC requirement for both GMP inspection of laboratories and product registration, is the analytical test method validation. This course is designed to provide students with an indepth understanding of the technical and regulatory aspects of the analytical methods utilized to characterize drug-related samples to ensure that the results are trustworthy, as the analytical methods may be utilized as the basis for decisions related to patient safety.

Credits: 1.5**College:** School of Design & Engineering**Schedule Type:** Lecture**ENGR 619: Biopharm & Biologics**

This course is part of the Innovation MBA (iMBA) concentration in Biopharmaceutical Commercialization and is intended for students that are new to the biopharmaceutical and biologics industries. Through a series of case studies and reallife experiences, the course introduces the various regulatory guidelines (FDA and EMA) which are followed by the pharmaceutical industry for the approval of biopharmaceuticals and biosimilars. The course also highlights the important regulatory and draft FDA guidelines for next generation therapeutic modalities, such as CAR-T cell, gene therapy and novel vaccines. The regulatory guidelines for implementing QbD in biopharmaceutical processes will be introduced.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture, On-Line

ENGR 620: Biopharm Commercialization

Commercialization represents the biopharma function that is most visibly tied to overall company health. This function is responsible for bringing drugs to market and overseeing their financial performance. They must work closely with development teams to manage portfolio and pipeline, while also translating successful clinical trials into viable products that are embraced by prescribers and consumers. Interaction with manufacturing is critical as well, as supply chain and demand must be aligned across these functions. Ultimately, if commercialization teams are high-functioning, this translates into strong company performance and investor confidence.

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture, On-Line

ENGR 621: Intro Biopharm & Biologics Prod

This master level course is part of the Innovation MBA (iMBA) concentration in Biopharmaceutical Commercialization. It is intended for non-scientists and those who are new to the biopharmaceutical and biologics industries. Through a series of case studies and real-life experiences, the course introduces the history of biopharmaceutical development; beginning with first generation treatments, including insulin, human growth hormones and tissue plasminogen activator, to next generation therapeutic modalities, such as CAR-T cell, gene therapy and novel vaccines. Upon completion of this course, participants will be prepared to engage in high level discussions and decisions across all major functional areas related to the commercialization of products in the biopharmaceutical industry. This course will provide participants with a basic scientific background and the ability to participate and contribute to business-related operations that are critical to expanding areas within biopharma, including proteins and monoclonal antibodies, modern vaccines and cell/gene therapies.

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture, On-Line

ENGR 622: Bio-Therapeutic Formulation

The formulation of therapeutics is an integral step in the manufacturing process which ensures the stability and safe delivery of the drug product. Participants in this course will be introduced to the challenges and opportunities in formulation practice with a focus on the development of liquid formulation for proteins and monoclonal antibodies for subcutaneous and intravenous delivery. The course also includes an in-depth exploration of industry standard best practices using quality-by-design and risk-based management approaches to identify and optimize liquid formulations for early to late-phase clinical studies and product launch.

Credits: 1.5

College: School of Design & Engineering

Schedule Type: Lecture

ENGR 623: Intro to Life Cycle Analysis

The goal of this course is to bring perspective to the practical application of life cycle assessment (LCA) to products, processes, and business activities. The course will address how industry and government are applying LCA and assess its potential as it evolves both as an environmental tool and as an ethic, much as pollution prevention has. Case studies will be offered as examples of how the use of LCA can lead to beneficial results. The course will cover all facets of LCA to help the student thoroughly understand the subject. Discussion will range from the full, robust LCA model (inventory, impact assessment, and improvement analysis) to issues surrounding the development of a streamlined approach. Applications in life-cycle design and ecolabeling will be presented, as well as initial attempts to include life cycle thinking in the development of public policy in the United States and abroad. Of course, no discussion of industrial applications would be complete without consideration of life cycle costing and its importance as a factor in corporate decision making.

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture

ENGR 624: Lean Manufacturing

This course is designed to give students an overview of a "Lean Enterprise Systems" as an approach companies use to achieve world-class performance and customer satisfaction. This course will show how Continuous Improvement principles improve an organization's ability to provide added customer value to products and services. The focus of the course will be on introducing these key concepts, methods, and tools by demonstrating how they are applied in decision-making situations.

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture

ENGR 800: Doctoral Research I

This doctoral level course is the first in a series of three courses which provide students the forum to survey the landscape of their dissertation topic with an emphasis on a deep understanding of fundamental principles and latest research in the field. Students will use this foundation to develop an experimental plan with their committee and complete an in-depth literature review for their dissertation. By the completion of this initial Doctoral Research Course / Semester, candidates will present an in-depth background overview of their research topic in oral and written form. The presentation and report should address the history / background of the topic, as well as comprehensive analysis of the literature relevant to the dissertation topic.

Credits: 6

College: School of Design & Engineering

Schedule Type: Hybrid, Lecture

ENGR 801: Doctoral Research II

This doctoral level course is the second in a series of three courses which provide students the forum to survey the landscape of their dissertation topic with an emphasis on a deep understanding of fundamental principles and latest research in the field. Students will use this foundation to develop an experimental plan with their committee and complete an in-depth literature review for their dissertation. By the completion of this second Doctoral Research Course / Semester, candidates will outline the objectives of their research and develop a detailed project proposal and present it to their research committee for review and approval. The proposal should clearly relate to the objectives and include a tentative experimental plan, timeline and needs analysis.

Credits: 6**College:** School of Design & Engineering**Schedule Type:** Hybrid**ENGR 802: Doctoral Research III**

This doctoral level course is the third in a series of three courses which provide students the forum to survey the landscape of their dissertation topic with an emphasis on a deep understanding of fundamental principles and latest research in the field. Students will use this foundation to develop an experimental plan with their committee and complete an in-depth literature review for their dissertation. By the completion of this third Doctoral Research Course / Semester, candidates will finalize their experimental plan /project proposal incorporating the feedback and analysis provided by their research committee. If time allows and the proposal is fully approved; the candidate will be eligible to begin experimentation. The course will also afford the candidate the opportunity to prepare a publishable manuscript for the dissemination of the results of their literature review, as well as opportunities to identify appropriate venues for the presentation of the research. The course will culminate with the first-year candidacy exam.

Credits: 6**College:** School of Design & Engineering**Schedule Type:** Lecture**ENGR 803: Doctoral Research IV**

This doctoral level course is the first in a series of three which provide students the forum to begin their hands-on experimentation as related to their dissertation topic. As by this point, all students have developed a deep understanding of fundamental principles / latest research within their area of interest, and have gained approval for their experimental plan, it is paramount to the success of the candidate that they be provided a forum to earn credit for their work while also tracking progress and milestones.

Credits: 6**College:** School of Design & Engineering**Schedule Type:** Lecture**ENGR 804: Doctoral Research V**

This doctoral level course is the second in a series of three and provides students the forum to continue their hands-on experimentation as related to their dissertation topic. As by this point, all students have developed a deep understanding of fundamental principles / latest research within their area of interest, it is fundamental to the students' success that they be provided a forum to earn credit for their work while also tracking progress and milestones throughout their second year of study.

Credits: 6**College:** School of Design & Engineering**Schedule Type:** Lecture**ENGR 805: Doctoral Research VI**

This doctoral level course is the third in a series of three which provide students the forum to continue / complete their hands-on experimentation as related to their dissertation topic. As by this point, all students have developed a deep understanding of fundamental principles / latest research within their area of interest, it is fundamental to the students' success that they be provided a forum to earn credit for their work while also tracking progress and milestones throughout their second year of study.

Credits: 6**College:** School of Design & Engineering**Schedule Type:** Lecture

Fashion Design Management (FDM)

FDM 601: Design Process Timeline: P&M

This course introduces designers to the complexities of the design development calendar within a global corporate structure. Students will go through the entire design development timeline linking design/merchandising/prototype development and brand positioning processes within an overseas sourcing structure. The process will begin with an understanding of historical data and how it informs design choices. Overview of creative teams and understanding the interaction between design, merchandising, production, sales and marketing. Students will learn how design decisions impact time lines throughout the organization building toward industry wide product launch dates.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture**FDM 602: Fashion Design Mgmt Elective****Credits:** 3**College:** School of Design & Engineering**Schedule Type:** Lecture**FDM 603: Fashion Adv Design Studio****Credits:** 4**College:** School of Design & Engineering**Schedule Type:** Lecture**FDM 604: Trend Forecasting for Fashion****Credits:** 3**College:** School of Design & Engineering**Schedule Type:** Lecture**FDM 605: Workshop/Intensive Indus Proj****Credits:** 1**College:** School of Design & Engineering**Schedule Type:** Lecture

FDM 610: Social Media Metrics in Design

This course gives students an overview of how to incorporate both Social Media Metrics and Data Analytics strategically into the design development process. Student teams will research digital branded leaders who are most effectively leveraging social quantitative methods to gain data driven insight into consumer trends and in turn, product development. Overview of both Google Analytics and facebook public platforms will identify key algorithms used in the Fashion Industry. Student designers will develop strategies to grow and impact future collections through strategic analysis, thoughtful content development and focused product positioning.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Hybrid, Lecture, On-Line**FDM 617: Designing within Brand Paramet**

This course will be a simulation of the complete research and design development cycle beginning with a specific design brief and designing into a targeted existing brand aesthetic. Designers will be introduced to the broad range of parameters influencing branded product offerings. They will be challenged to create within market constraints including; targeted channels of distribution, season, sku plan, delivery, targeted wholesale/cost of goods/margins, raw material sourcing and competitive landscape.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture**FDM 621: Building Brand Identity**

The critical relationship between design/merchandising/marketing will be explored in this course with a focus on benchmarking today's global fashion leaders. The course will integrate the distinct roles of the designer, the merchandiser and the marketing team, identifying how they are strategically intertwined. Students will move beyond product design and development by creating a design/merchandising strategy for the branding aspects of a collection including: brand name, logo, labelling, packaging, hangtags, signage and web home page layout. Approaching the collection in a broader sense, in the role of the Creative Director, students will focus on communicating a well-articulated, focused and cohesive branded message across all assets.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture**FDM 623: Textile Design & Approval Proc**

In this course, students will learn and apply the key steps in designing an industry-ready materials presentation and concept encompassing: color palette, fabric qualities, trim, hardware, surface interest, print/pattern and design concept as the starting point for a collection. Students will learn first-hand from industry experts and onsite visits the strategic design and approval processes used in color palette development, fabric and trim development and print/pattern design and development. Students will design an industry ready fabric/trim/color/hardware concept for their portfolios as the springboard to collection development. Processes covered will include Pantone palette development and analysis, trim and hardware sourcing, CAD print design, yarn dye stripe/plaid development and knit pattern design and development.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture**FDM 707: Strategic Dsgn & Merchandising**

This course gives students an overview of strategic design and merchandising processes. The students will use the unique approach of "reverse merchandising" to identify the key steps in the design development process. Step One will be to dissect a recent collection from an established luxury brand. In their collection synopsis students will learn the fundamentals of creating detailed line sheets, sku plans, fabrication plans, design concepts and targeted classification plans. They will do a deep dive into brand identifiers and then identify a white space representing growth opportunities within the existing collection. From that base they will design and merchandise into the targeted white space. Students will develop the skills to design into an established brand using a highly methodical and quantitative process aimed at the international luxury market.

Credits: 4**College:** School of Design & Engineering**Schedule Type:** Lecture**FDM 708: 3D Virtual Fashion Design I**

3D Virtual Fashion Design Essentials will enable students to understand the basic requirements needed to be successful utilizing industry-adopted 3D applications through hands on experience. Building on their pattern development knowledge and technical skills in 2D, students will learn to build an entire 3D collection from simple silhouettes to complicated designs utilizing fabric, fit, patterns, colors, and textures. Students will learn successful communication of quality assurance to vendors and manufacturing personnel worldwide.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Hybrid, Lecture, On-Line**FDM 721: Diversity in Design**

Students in the Diversity in Design course will examine and study the market in design inclusivity. As a part of the research, students will frame the question and engage with focus groups to identify areas of need in underserved populations. Students will utilize their findings to develop a fashion design product that solves a need in the inclusivity market. During the final presentation, students will present the products to the focus groups, potential investors and industry professionals

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture/Studio Combination

Forensic Biology (FB)

FB 605: ForenSerology & Immunology Lec**Credits:** 2**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture**FB 606: ForenSerology & Immunology Lab****Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** Lab**FB 607: Jour Club in For Serology&Immu****Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture**FB 610: Legal Procedure & Ethics****Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture

FB 620: Forensic Science Forum**Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture, Lecture/On-Line, On-Line**FB 640: Legal Procedure & Ethics****Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** Clinical, Lecture, Seminar**FB 705: Forensic Genetics Lecture****Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture**FB 706: Forensic Genetics Lab****Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** Lab**FB 715: Advanced Forensic Genetics****Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture**FB 716: Advanced Forensic Genetics Lab****Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** Lab**FB 717: Journal Club in Foren Genetics****Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture**FB 810: MSFB Clerkship****Credits:** 1-6**College:** Jefferson College of Life Sciences**Schedule Type:** Independent Study**FB 830: Clerkship - MSFB****Credits:** 1-6**College:** Jefferson College of Life Sciences**Schedule Type:** Reseach**FB 870: Research - MSFB****Credits:** 1-6**College:** Jefferson College of Life Sciences**Schedule Type:** Reseach**FB 880: Master's Thesis Research****Credits:** 1-6**College:** Jefferson College of Life Sciences**Schedule Type:** Reseach**FB 890: Research - MSFB****Credits:** 1-6**College:** Jefferson College of Life Sciences**Schedule Type:** Reseach

Forensic Toxicology (FT)

FT 605: Analytical Forensic Toxicology**Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Clinical, Lecture**FT 606: Analytical ForensToxicologyLab****Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** Clinical, Lab, Lecture**FT 610: Legal Procedure & Ethics****Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** Clinical, Lecture, Seminar**FT 620: Forensic Science Forum****Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** Clinical, Lecture, Seminar**FT 705: AdvAnalytical ForensToxicology****Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Clinical, Lecture**FT 706: Adv Analytical ForensicTox Lab****Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** Clinical, Lab, Lecture**FT 715: Interpretive Foren Toxicology****Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Clinical, Lecture, Seminar**FT 716: Interpretive ForToxicology Lab****Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** Clinical, Lab, Lecture, Seminar**FT 810: Clerkship - MSFT****Credits:** 1-6**College:** Jefferson College of Life Sciences**Schedule Type:** Clinical, Lab, Lecture, Reseach**FT 815: Regulatorylss in Forensic Tox****Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** Clinical, Lecture, Seminar**FT 820: Clerkship- Forensic Toxicology****Credits:** 1-6**College:** Jefferson College of Life Sciences**Schedule Type:** Reseach**FT 830: FT Laboratory****Credits:** 1-6**College:** Jefferson College of Life Sciences**Schedule Type:** Clinical, Lab, Lecture, Reseach**FT 870: Research - MSFT****Credits:** 1-6**College:** Jefferson College of Life Sciences**Schedule Type:** Clinical, Exam, Lecture, Reseach**FT 880: Research - MSFT****Credits:** 1-6**College:** Jefferson College of Life Sciences**Schedule Type:** Clinical, Lab, Reseach**FT 890: Research - MSFT****Credits:** 1-6**College:** Jefferson College of Life Sciences**Schedule Type:** Clinical, Reseach

Genetics (GE)

GE 501: Pre-entry Rotation

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Reseach

GE 505: Pre-Entry Rotation

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Reseach

GE 512: Res Rotation-Exper Meth II

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Reseach

GE 521: Res Rotation-ExperMethII

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Reseach

GE 531: Res Rotation-Exp MethIII

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Reseach

GE 610: Transcriptional Regulat

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Lecture

GE 611: Molecular Genetics I

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lecture

GE 612: Adv Top in Molecular Genetics

Credits: 2

College: Jefferson College of Life Sciences

Prerequisites: GC 550

Schedule Type: Lecture, On-Line

GE 636: Tumor Cell Signaling&CellCycle

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lecture

GE 637: Human Genetics

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: On-Line, Seminar

GE 651: Pathobiology of Cancer

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Lecture, On-Line

GE 652: Tumor Cell Signaling

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Lecture, Seminar

GE 710: Current Literature in GGCB I

Credits: 1

College: Jefferson College of Life Sciences

Schedule Type: On-Line, Seminar

GE 715: Seminar I

Credits: 1

College: Jefferson College of Life Sciences

Schedule Type: On-Line, Seminar

GE 720: Current Literature in GGCB II

Credits: 1

College: Jefferson College of Life Sciences

Schedule Type: Lecture, Lecture/On-Line, On-Line, Seminar

GE 725: Seminar II

Credits: 1

College: Jefferson College of Life Sciences

Schedule Type: On-Line, Seminar

GE 730: Current Literature in GGCB III

Credits: 1

College: Jefferson College of Life Sciences

Schedule Type: Seminar

GE 735: Seminar III

Credits: 1

College: Jefferson College of Life Sciences

Schedule Type: On-Line, Seminar

Geodesign (GEOD)

GEOD 600: 3D Modeling for Geodesign

Geodesign is a planning and design process that is based on physical and biological information, references social and economic information and is holistic and interdisciplinary. Allied design professionals need to communicate, analyze, and model the impacts of change in the built environment. In this introductory course, students will begin to apply state-of-the art 3D geospatial modeling technology to solving real-world urban planning and design problems. Various geodesign techniques, digital technologies and scenario management tools will be introduced and applied.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Prerequisites: GEOD 610 or LARC 310 [Min Grade: B]

Schedule Type: Hybrid, Lecture, Lecture/Studio Combination, On-Line, Studio

GEOD 602: Geodesign Studio

In this intermediate design studio, students will form collaborative teams and apply geospatial analysis techniques and information modeling to a more complex urban design problem. Students will work cooperatively with the community client/partner throughout the design process. Community members will be instructed how to use one or more geospatial tools in the decision-making process.

Credits: 6

College: Jefferson Coll of Architecture & Built Environment

Prerequisites: GEOD 600 and (GEOD 615 or LARC 515) [Min Grade: B]

Schedule Type: By Appointment - 1 student, Lecture, Lecture/Studio Combination, Studio

GEOD 603: La Tech: Advanced Grading

This Advanced Grading course augments what the students have learned in their first Grading course, plus covers in more depth other sustainable aspects of landform manipulation for design and stormwater management. Computer applications will be used as a learning tool. Field trips to sites that are particularly appropriate for observing, measuring, and experiencing the sculptural qualities and capabilities of landform are also an integral component of this course.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Prerequisites:** LARC 207 [Min Grade: D]**Schedule Type:** Lab, Lecture**GEOD 604: Hydrology**

Hydrology examines sustainable water resource issues as they relate to landscape planning and site planning and design within the urban or urbanizing context. This includes the theory and techniques associated with soil and water conservation comprehension of the why, when and where that leads to sustainable planning or design strategies.

Topics include surface water hydrology, stormwater runoff estimation, sustainable stormwater management techniques, watershed planning, flood routing and impact mitigation, and erosion and sedimentation control tools and regulations.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Lecture**GEOD 605: Geodesign Appl Research Stud.**

In this culminating studio, students will work individually or in small groups on an applied research project that was developed through a previous GeoDesign design studio, a technology course, or from an outside source. The applied research outcomes will then be used and tested as part of a community outreach planning and/or design project.

Credits: 6**College:** Jefferson Coll of Architecture & Built Environment**Prerequisites:** GEOD 602 and GEOD 616 [Min Grade: B]**Schedule Type:** By Appointment, Lecture, Studio**GEOD 606: History of Landscape Arch 1**

This survey course covers significant examples of landscapes and landscape design from the eastern, central Asian, and western regions of the world, produced from ancient times through the 19th centuries. Students will be introduced to the cultural and social history of each epoch as a means of critically analyzing key historical works of landscape design and addressing the ideas and concepts imbedded in the term landscape.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Lecture**GEOD 607: Geodesign Explorations**

In this seminar/lab course, students learn to explore cutting-edge geospatial techniques, applications, and data sources and determine whether these approaches are appropriate, useful and cost-effective in a production environment. For example, LiDAR-enabled spatial robotics allows for mobile spatial data collection within buildings, but is this an appropriate technique to build a 3D contextual basemap? And how can this technology be applied to exterior urban spaces

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Prerequisites:** GEOD 602 or GEOD 617 [Min Grade: B]**Schedule Type:** By Appointment - 1 student, Lab, Lecture, Lecture/Lab**GEOD 608: History of Landscape Arch 2**

This course is the third of a four-term sequence of history/ theory courses. It surveys key examples of landscape architecture from the mid-19th century to the present time. Students strengthen their vocabulary for analyzing and evaluating the designed landscape. Students are also introduced to the influential personalities, projects, events, concepts and thoughts that were pivotal in the philosophical and ethical development of the profession of landscape architecture.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Lecture**GEOD 610: Introduction to GIS**

This course introduces students to Geographic Information Systems (GIS) and is a prerequisite for those accepted in the MS in Geospatial Technology for Geodesign program who do not have acceptable prior GIS training or professional experience. GIS is a computer-based tool that uses spatial (geographic) data to analyze and help solve real-world problems. Specific GIS methods and topics covered include digital cartography, geoprocessing techniques, demographics analysis, site selection, raster analysis, 3D GIS, land use scenario development, and environmental applications.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Hybrid, Lab, Lecture, Lecture/Lab**GEOD 612: Local Flora****Credits:** 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Lab, Lecture**GEOD 613: Sustainable Planting Design****Credits:** 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Lab, Lecture**GEOD 614: Construction Docs****Credits:** 4**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Lab, Lecture**GEOD 615: Adv GIS:Urbn Spctl Analytcs 1**

This advanced GIS course will cover topics in geospatial technology as related to the allied design disciplines: landscape architecture, architecture, urban design, planning and geodesign. The course prepares students to apply GIS within practical design processes such as site preparation and analysis; modeling terrains and hydrologic processes; integration of sustainable design criteria; and modeling the built environment in 3D. While this course will cover a broad suite of tools within the Esri ArcGIS platform, it will place heavy emphasis on raster-based GIS processes. This course will also feature workshops and/or presentations by professionals who use geospatial technology in various design disciplines.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Prerequisites:** GEOD 610 or LARC 310 [Min Grade: B]**Schedule Type:** Lab, Lecture, Lecture/Lab, On-Line

GEOD 616: Information Modeling

Geospatial data will be used as the basis for advanced information modeling which is an integrated process for digitally exploring, defining, representing, analyzing and visualizing a project's physical and cultural characteristics during design and management. The scales of building, campus, neighborhood, and city will be studied. Principles of spatial modeling, integrated project delivery and lean design will be discussed in relation to this process.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Prerequisites: GEOD 600 [Min Grade: B]

Schedule Type: Hybrid, Lab, Lecture

GEOD 617: Adv GIS: Urb Spial Anlytcs II

This advanced GIS course will focus on analysis and modeling of urban structure and dynamics. The focus of this course is on preparing students to apply GIS processes within practical situations such as market research, real estate development, transportation modeling, and socio-economic analysis. While this course will cover a broad suite of tools within the Esri ArcGIS platform, it will place heavy emphasis on the real world context of data collection, cleaning and preparation for urban analytics. Exercises will include simulating and modeling urban transportation systems, analyzing and modeling urban growth, and predicting urban changes and impacts. This course will also feature workshops and/or presentations by professionals who use geospatial technology in various design disciplines.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Prerequisites: GEOD 610 or LARC 310 [Min Grade: B]

Schedule Type: By Appointment - 1 student, By Appointment, Lab, Lecture

GEOD 618: LA Technology: Grading

This course focuses on the principles and techniques of landform manipulation for design and drainage. Students develop an understanding of contours, contour manipulation, and site-construction methodologies. Topics include topographic and grading problems in landscape engineering: drainage plans, grading plans, spot elevations, road alignment, sections and profiles and cut-and-fill calculations.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: Lab, Lecture, Lecture/Lab

GEOD 619: Plant Community Ecology

This course investigates how interactions within plant species, between species, and between species and their environment influences plant community structure. Questions explored include: How many species are in a given habitat type? Why these species and not others? How do they interact with each other plants? What controls their abundances in natural and urban landscapes? Students will learn how plant distributions are influenced by environmental conditions with a particular emphasis on the urban environs. In-the-field exercises constitute a significant portion of this course.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: Lab, Lecture, Lecture/Lab

GEOD 620: Soils

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: Lab, Lecture

GEOD 621: Environmental Policy

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: Lecture

GEOD 625: Inter GIS Tech for Design &Dev

This course introduces students to online geospatial technology tools applicable in various fields including planning, landscape architecture and real estate development. Software utilized in this course aids professionals in site analysis, land planning, urban design, real estate development, market research and feasibility analyses. Emphasis is placed on the ArcGIS Online platform, an instrument used to evaluate site potential, analyze geographic datasets, host and share impactful and informative applications. Students will utilize tools and data pertaining to landscape planning, the dynamics of neighborhood change and spatial growth modeling.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: By Appointment - 2 students, By Appointment - 3 students, Lecture

Global Fashion Enter. Foundatn (GFEF)

GFEF 501: Prototyping

Garment Development Students will have a basic understanding of garment construction combined with flat-pattern concepts. The use of industrial equipment and basic slopers will be utilized to produce a sample book of construction details and garments.

Credits: 3

College: School of Business

Schedule Type: Lecture, Lecture/Studio Combination, Studio

GFEF 505: Apparel Production

Credits: 3

College: School of Business

Prerequisites: FASM 101 and FASM 201 [Min Grade: D]

Schedule Type: Lab, Lecture

Global Fashion Enterprise (GFE)

GFE 600: Fashion Immersion

This course introduces students at a graduate level to the global fashion industry, with a particular focus on benchmarking successful organizational strategies. The course integrates textile functionalities, usages, design concepts, and apparel manufacturing. Students visit US fashion houses and participate in experientially focused workshops. Students will evaluate fashion strategies, from both the technical and business perspectives, and examine the conceptual frameworks and core disciplines within the Global Fashion Enterprise curriculum.

Credits: 3

College: School of Business

Prerequisites: (IMBF 504 Min Grade: C and IMBF 505 Min Grade: C and IMBF 508 Min Grade: C and IMBF 510 Min Grade: C) or (GFEF 501 Min Grade: C and GFEF 505 Min Grade: C and TEXT 101 Min Grade: D and FASM 101 Min Grade: D)

Schedule Type: Hybrid, Lecture

GFE 611: Product Devel/Entrepreneurship

In the development of any apparel product, attention must be given to form, function, fit and appearance and to their interrelationship. Form involves the influence of preference and individual choices. Function includes such aspects as "fitness for use," taking into account levels of activity, gender and age. Account must also be taken of the influence of markets, as well as the opportunities and constraints presented by design, cost and manufacturing systems. At the managerial level, the individual is faced with constant change from original concept to the end product. Multiple adjustments to the product arise at every phase requiring tremendous ingenuity and problem-solving skills. Graduates will be faced with this kind of process in the apparel industry and need to manage and follow through with the development of a product.

Credits: 3**College:** School of Business**Schedule Type:** Lecture**GFE 612: Technology in Fashion**

This course aims at showing that state-of-the-art technology in a given field has become an essential component for strategic leadership, profitability and stable employment. The point is made by providing a broad perspective on the major technical advances experienced by the apparel industry from the 1980s and their positive impact on the national industries where they originated and/or were adopted. Analysis of the difficulties met by high wage countries failing to follow that course helps to reinforce the point. Review of the factors accounting for these advances brings out the critical importance of technology transfer and fusion in the formulation and development of basic concepts. Detailing both processes offers the opportunity to introduce the notion of systemic thinking and its growing influence on management style. It is intended that the student will gain a global perspective of the textile and apparel business and of the growing role played by advanced technology and its impact on finances and personnel.

Credits: 3**College:** School of Business**Schedule Type:** Lecture**GFE 621: Fashion Global Mktg & Sourcing**

U.S. textile and apparel companies are under siege, facing competitive threats that have been continually mounting for years. What it takes to be successful in the future is explored. The concept of "business as usual" has long outlived its usefulness, and new and refreshing approaches are necessary. Students will be introduced to avant-garde management concepts often espoused, but seldom adopted, by most textile and apparel managements. The course is designed to introduce the student to the global perspective of today's apparel industry and to prepare the student to make critical international marketing and sourcing decisions within a complex economic environment. Students will explore the major variations which occur across international markets - economic, social, and cultural; examine the behavior of business within different marketing and manufacturing contexts; and consider the factors involved in making effective global marketing and sourcing decisions.

Credits: 3**College:** School of Business**Schedule Type:** Lecture**GFE 721: Global Fashion Project 1**

Students research, select and conduct preliminary work on a project falling either within the: (1) Product Concept Track in which they develop a fashion line consisting of apparel, accessories, or home textiles that could be produced and sold online or in traditional retail establishments, or (2) Business Concept Track in which they develop a business plan or implement an innovative concept at an existing company. Weekly and summative critiques are held with faculty and industry associates.

Credits: 3**College:** School of Business**Schedule Type:** By Appointment, Lecture**GFE 722: Global Fashion Project 2**

Continuation of GFE-721. Product track students' focus on designing, merchandising, sourcing, quality assurance, and material procurement decisions related to their product. They identify product specifications, conduct a cost analysis, margin realization, and risk assessment that will form the basis for the development of a supply chain strategy. Business concept track students integrate key activities, resources, and financial requirements for a commercialization plan. Concludes with a presentation to industry critics.

Credits: 3**College:** School of Business**Prerequisites:** GFE 721 [Min Grade: C]**Schedule Type:** Lecture**GFE 723: Global Fashion Project 3**

Continuation of GFE-722. Students implement their product or business concept and write a formal business plan. The final strategy for a visual merchandising plan, or business plan development, will be solidified and implemented. Students will conduct pilot testing to assess the feasibility of their plans and will present their plans after interviewing clients and reviewing their plans with industry critics. Each phase of the new business lifecycle concludes in a progress presentation with industry critics.

Credits: 3**College:** School of Business**Prerequisites:** GFE 729 and GFE 721 [Min Grade: C]**Schedule Type:** Lecture**GFE 725: Brand Driven Design & Innovatn**

Brand Driven Design & Innovation prepares students to evaluate mass and luxury markets by conducting research on the Brand's DNA, examining the marketing mix on a global scale, preparing a situational analysis and executing innovative presentations. This course is designed to train future professionals in market analysis, market entry or exit strategy, creating perceptual positioning maps, and forecasting, while analyzing elements of the value chain to formulate a brand strategy. Brand Design & Innovation will also detail the primary methods of social research and their practical application in the field of fashion.

Credits: 3**College:** School of Business**Schedule Type:** On-Line**GFE 727: Omni-Channel Retail Systems****Credits:** 3**College:** School of Business**Schedule Type:** Lecture/On-Line

GFE 729: Product Lifecycle Management

Product Lifecycle Management (PLM) has become one of the emerging technology applications in business, specifically in apparel, accessories, footwear, textiles, and other fashion-related industries. Learn how PLM software can accelerate your product development process with digital asset (image) management, tech pack management, quotation and bid management, sample and production planning and tracking, pre-concept line management, and materials management. In this hands-on course, you will develop, manage, and edit a technically accurate, complete mini-collection in GERBER comprehensive suite of PLM tools developed specifically for fashion companies.

Credits: 3

College: School of Business

Schedule Type: Lecture

GFE 732: Fashion Seminar

Credits: 1

College: School of Business

Schedule Type: Lecture

GFE 732A: Global Fashion Seminar I

This seminar course features speakers from across the fashion value chain who share their experiences and career insights. Students reflect on the implications of the topics presented for their own careers, relating concepts and insights to material covered in other Global Fashion Enterprise courses. Students have the opportunity to network informally with course speakers. .

Credits: 0.5

College: School of Business

Schedule Type: Hybrid, Lecture, On-Line

GFE 732B: Global Fashion Seminar II

This seminar course features speakers from across the fashion value chain who share their experiences and career insights. Students reflect on the implications of the topics presented for their own careers, relating concepts and insights to material covered in other Global Fashion Enterprise courses. Students have the opportunity to network informally with course speakers.

Credits: 0.5

College: School of Business

Schedule Type: Hybrid, Lecture, On-Line

GFE 734: Fashion Supply Chain Mgmt

The course provides a broad introduction to many critical facets of supply chain. Students in this course will understand existing tools utilized in managing inventory and logistics in the global supply chain. The course covers topics in inventory logistics management, network design, value of information sharing, the international supply chain, supply chain contracts, and risk management.

Credits: 3

College: School of Business

Schedule Type: By Appointment - 1 student, Lecture

GFE 793: Global Fashion Networking

This course exposes students to fashion ecosystems through an international study tour, coupled with classroom and experiential instruction. Students will tour design houses, mills, apparel factories & retail locations throughout the country (or countries) of focus, identifying best practices in merchandising & supply chain management within these organizations. Students will gain knowledge of product development & marketing, the manufacturing environment, quality assessment, and customer service. Students will acquire global competencies and understanding and will have the opportunity to hone their career aspirations and expand their professional networks through discussions with global fashion executives and hiring managers. Pre-Requisite: GFE-600 Fashion Immersion

Credits: 3

College: School of Business

Schedule Type: Study Abroad

GFE 797: Selected Topics

Selected Topics

Credits: 3

College: School of Business

Schedule Type: By Appointment - 1 student, By Appointment

Graduate Center (GC)

GC 510: Database Design & Mgmt

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Lecture, On-Line

GC 515: Qual Meas & Outcome Ana in Hlt

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lecture

GC 520: Cultural Humility in Life Sci

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Lecture, Lecture/On-Line, On-Line

GC 525: Information Systems Management

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lecture, On-Line

GC 526: Presentation Skills

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Lecture

GC 529: Lab Animal Science

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Lecture/Lab

GC 531: Fundamentals-Biosafety

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Lab, Lecture, Lecture/Lab, Lecture/On-Line, On-Line

GC 535: Intro to Genomics & Bioinforma

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lecture, Lecture/Lab

GC 540: Biomedical Informatics**Credits:** 2**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture**GC 550: Found in Biomedical Sciences**

This course provides an introductory graduate-level knowledge base of biochemistry, genetics, molecular and cellular biology, immunology, and neuroscience to the beginning student. The primary goal is to convey a foundation of the molecular and cellular mechanisms controlling cell, tissue, and organ system function. It utilizes a team-taught approach to give students an expert, cutting-edge overview of a wide range of topics, combined with various reinforcing group exercises designed to guide self-learning, and to broaden scientific interest and strengthen communication skills.

Credits: 10**College:** Jefferson College of Life Sciences**Schedule Type:** Exam, Lecture, Lecture/Lab, On-Line**GC 550A: Found in BiomedSci-Genetics****Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture/Lab**GC 550B: Found in BiomedSci-Biochemistry****Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture/Lab**GC 550C: Found in BiomedSci-CellBiology****Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture/Lab**GC 550D: Rudiments/ComputationalBio&Med****Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** Lab, Lecture, Lecture/Lab, Lecture/On-Line, On-Line**GC 558: Intro to UNIX & Program in C****Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture, On-Line**GC 559: Intro to R Programming****Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture, On-Line**GC 560: Data Visualization****Credits:** 2**College:** Jefferson College of Life Sciences**Prerequisites:** GC 559**Schedule Type:** Lecture, Lecture/On-Line, On-Line**GC 561: Data Structure & Algorithms****Credits:** 3**College:** Jefferson College of Life Sciences**Prerequisites:** GC 558 or GC 559**Schedule Type:** Lecture, On-Line**GC 562: Computational Genomics****Credits:** 3**College:** Jefferson College of Life Sciences**Prerequisites:** GC 558 and GC 559**Schedule Type:** Lecture, On-Line**GC 563: Computational Transcriptomics****Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture, On-Line**GC 564: Data Mining & Machine Learning****Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture, On-Line**GC 565: Functional Genomics****Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture, Lecture/On-Line, On-Line**GC 600: Managerial and Teamwork Skills****Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture, On-Line**GC 601: Neuropharmacology:Nerv System****Credits:** 2**College:** Jefferson College of Life Sciences**Schedule Type:** Seminar**GC 605: Performance Improvement****Credits:** 2**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture, On-Line**GC 610: Strategic Management****Credits:** 2**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture, On-Line**GC 615: Grants & Contracts Management****Credits:** 2**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture, On-Line**GC 617: ManagPharm DrugDevelopProjects**

This course focuses on managing drug development projects in the pharmaceutical industry. The class is divided into small working teams for homework assignments and for the final examination. The emphasis is on the development of biologics; that is, large protein molecules such as antibodies. Faculty from major pharmaceutical (e.g., Johnson & Johnson, Pfizer and Bristol Myers Squibb) and smaller biotech companies will teach this course. Topics covered, include: how new drugs are brought to market via the "development" process; how project teams develop the strategies and execute the development of new drugs; how compounds are discovered and tested before entering development; how commercial and legal (i.e., intellectual property) input is integrated into the early planning stages of drug development; how large protein molecule drugs are manufactured; how project management oversees and coordinates the development process; how patients are involved in designing clinical trials; the importance of health economics in drug development; and, finally, how drugs are launched and commercialized. For the final exam, teams of students will present their development plans for approval to a mock company management board.

Credits: 2**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture, On-Line

GC 620: Fund of Fin Mgmt.

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lecture

GC 621: Biotechnology Venture Mgmt

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Lecture, On-Line

GC 622: Cases in Fin Management

Credits: 2

College: Jefferson College of Life Sciences

Prerequisites: GC 620

Schedule Type: Lecture

GC 625: Drug Development Essentials

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Lecture, Lecture/On-Line, On-Line

GC 630: Fund-Clinical Trials

Credits: 3

College: Jefferson College of Life Sciences

Prerequisites: GC 660 or GC 663 or NS 740

Schedule Type: Lecture, On-Line

GC 631: CompEff & PtCent OutcomesRes

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lecture, On-Line, Seminar

GC 632: Rsrc Method:Surg Spec Res Cons

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lecture, Lecture/On-Line, On-Line, Seminar

GC 633: Topics in Bioinformatics

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lecture

GC 635: Intro to Clin Trials Mgmt

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Lecture, On-Line

GC 636: PrinCarMgmt-DiverseBMCareers

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Lecture, On-Line, Seminar

GC 637: Adv Clin Trial Mgmt: Careers

Credits: 2

College: Jefferson College of Life Sciences

Prerequisites: GC 635

Schedule Type: Lecture, On-Line

GC 640: Research Ethics

Credits: 1

College: Jefferson College of Life Sciences

Schedule Type: Lecture, On-Line

GC 642: Introduction to Microscopy

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Lab, Lecture, Lecture/Lab, Lecture/On-Line, On-Line

GC 645: Genomics & Bioinformatics

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lecture, On-Line

GC 650: EconAnal of HealthcareInterven

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lecture, On-Line

GC 652: DecSupp&SharedDecMaking HC

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Independent Study, Lecture, Seminar

GC 654: Pharmacoepidemiology

Credits: 2

College: Jefferson College of Life Sciences

Prerequisites: MI 580 and GC 660

Schedule Type: Lecture

GC 655: Clinical Epidemiology

Credits: 2

College: Jefferson College of Life Sciences

Prerequisites: MI 580

Schedule Type: Lecture

GC 660: Statistical Methods

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lecture, Lecture/On-Line, On-Line

GC 661: Data Analysis w/StatSoftware

Credits: 1

College: Jefferson College of Life Sciences

Prerequisites: GC 660

Schedule Type: Lecture/Lab

GC 662: ConceptsSciInference&StudyDes

Credits: 1

College: Jefferson College of Life Sciences

Schedule Type: Lecture

GC 663: Statistics for Basic Sciences

Credits: 3

College: Jefferson College of Life Sciences

Prerequisites: GC 662

Schedule Type: Lecture

GC 665: Cell Signaling

Credits: 4

College: Jefferson College of Life Sciences

Prerequisites: GC 550

Schedule Type: Lecture

GC 670: StatReasoning of BiomedResearc

Credits: 2

College: Jefferson College of Life Sciences

Prerequisites: GC 660

Schedule Type: Lecture

GC 675: Cancer Immunology

Credits: 2

College: Jefferson College of Life Sciences

Prerequisites: IMP 505A or MI 521

Schedule Type: Lecture, On-Line

GC 680: Lab Techniq-Molec Bio**Credits:** 3**College:** Jefferson College of Life Sciences**Prerequisites:** BI 550 or CB 560 or FB 605**Schedule Type:** Lab, Lecture/Lab, On-Line**GC 690: Reg Issu in Human Subjects Res****Credits:** 2**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture**GC 698: Innovation Engagement****Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture, On-Line, Seminar**GC 699: Independent Study****Credits:** 1-3**College:** Jefferson College of Life Sciences**Schedule Type:** Clinical, Independent Study, Lab, Lecture, Lecture/Lab, Reseach, Seminar, Tutorial**GC 710: MD/PhD TranResearchJournalClub****Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** On-Line, Seminar**GC 712: MDPHD TranResearchJournlClubII****Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** On-Line, Seminar**GC 714: MDPHDTranResearchJournlClubIII****Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** Seminar**GC 715: MS Biomed Sciences Seminar****Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** On-Line, Seminar**GC 720: Scientific Writing****Credits:** 2**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture, Lecture/On-Line, On-Line**GC 721: Basic Writing Strategies OMFS****Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture, Seminar**GC 722: Honors Scientific Writing OMFS****Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture, Seminar**GC 723: Comm Sci as Storytelling****Credits:** 2**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture, Lecture/On-Line, On-Line**GC 725: Enrich ClinSkills for PhysSci****Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** Clinical, Independent Study, Practicum**GC 730: Planning&Writing ResearchGrant****Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture, Lecture/On-Line, On-Line**GC 740: Principles of Pedagogy****Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture, Seminar**GC 741: Principles of Science Pedagogy****Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture, On-Line, Seminar**GC 742: Applied Statistics****Credits:** 2**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture, Lecture/On-Line, On-Line**GC 746: Princ Onl Course Des & Pedag I****Credits:** 2**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture, On-Line**GC 747: Teaching & Learning Online****Credits:** 2**College:** Jefferson College of Life Sciences**Schedule Type:** On-Line**GC 748: Learner Centered Education****Credits:** 2**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture, On-Line**GC 749: The Science of Learning II****Credits:** 2**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture, On-Line**GC 750: PhD Laboratory Rotation I****Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Lab, Reseach**GC 751: Instructional Tech & Learning****Credits:** 2**College:** Jefferson College of Life Sciences**Schedule Type:** On-Line**GC 752: Curriculum & Instructional Des****Credits:** 2**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture, Lecture/On-Line, On-Line**GC 753: Program Assessment & Eval****Credits:** 2**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture, Lecture/On-Line, On-Line**GC 760: PhD Laborator Rotation II****Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Lab, Reseach**GC 770: PhD Laboratory Rotation III****Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Reseach

GC 780: PhD Laboratory Rotation IV

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lab, Reseach

Graduate Internship (GRIN)

GRIN 791F: Graduate Internship

Credits: 3

College: Undefined College

Schedule Type: Internship 3 Credits

GRIN 791O: Graduate Internship

Credits: 1

College: Undefined College

Schedule Type: Internship 1 Credits

GRIN 791Z: Graduate Internship

Credits: 0.5

College: Undefined College

Schedule Type: Internship .5 Credits

Health Administration (HLAD)

Health Care Education (MSED)

Health Communication Design (HCMD)

Health Data Science (HDS)

HDS 500: Fundamentals of Data Wrangling

Credits: 3

College: Jefferson College of Population Health

Prerequisites: AHE 502 or PHS 605

Schedule Type: On-Line

HDS 501: Health Informatics & Analytics

Credits: 3

College: Jefferson College of Population Health

Schedule Type: On-Line

HDS 502: Advanced Data Analysis

Credits: 3

College: Jefferson College of Population Health

Prerequisites: HDS 500

Schedule Type: On-Line

HDS 518: Data Science I

Credits: 3

College: Jefferson College of Population Health

Schedule Type: On-Line

HDS 519: Data Science II

Credits: 3

College: Jefferson College of Population Health

Prerequisites: HDS 502 and HDS 518

Schedule Type: On-Line

HDS 527: Analytics Leadership

Credits: 3

College: Jefferson College of Population Health

Schedule Type: On-Line

HDS 532: Data Visualization

Credits: 3

College: Jefferson College of Population Health

Schedule Type: On-Line

HDS 538: Implementation Science

Credits: 3

College: Jefferson College of Population Health

Schedule Type: On-Line

HDS 651: Capstone Research Project

Credits: 3

College: Jefferson College of Population Health

Prerequisites: HDS 519 and HDS 532 and AHE 501 or POP 500 and HDS 501 and AHE 505

Schedule Type: On-Line, Reseach

HDS 652: Strat Capstone Portfolio&Pres

Credits: 3

College: Jefferson College of Population Health

Prerequisites: HDS 527 and HDS 532 and HDS 538 and HDS 518 and AHE 501 or POP 500 and HDS 501 and AHE 505 and AHE 509

Schedule Type: On-Line, Reseach

HDS 655: Capstone Extension

Credits: 0

College: Jefferson College of Population Health

Prerequisites: HDS 651 or HDS 652

Schedule Type: On-Line

HDS 800: Elective Credits

Credits: 3

College: Jefferson College of Population Health

Schedule Type: Transfer Credit

Health Policy (JCPH) (HPL)

HPL 500: US Healthcare Org & Delivery

Credits: 3

College: Jefferson College of Population Health

Schedule Type: Lecture, Lecture/On-Line, On-Line

HPL 504: Health Law & Regulatory Issues

Credits: 3

College: Jefferson College of Population Health

Schedule Type: Lecture, On-Line

HPL 505: Legis, Exec, & Reg Processes

Credits: 3

College: Jefferson College of Population Health

Schedule Type: On-Line

HPL 506: HealthPolicy:Analysis&Advocacy

Credits: 3

College: Jefferson College of Population Health

Schedule Type: Lecture, On-Line

HPL 511: PolAppr to Addr SocDet of Hlth

Credits: 3

College: Jefferson College of Population Health

Schedule Type: On-Line

HPL 512: Medicare and Medicaid

Credits: 3

College: Jefferson College of Population Health

Schedule Type: On-Line

HPL 513: Eff Commun & Dissemin of Data**Credits:** 3**College:** Jefferson College of Population Health**Schedule Type:** On-Line**HPL 515: Refugee & Migrant Health****Credits:** 3**College:** Jefferson College of Population Health**Schedule Type:** On-Line**HPL 516: Del Hlth Serv in Res-Ltd Cntrs****Credits:** 3**College:** Jefferson College of Population Health**Schedule Type:** On-Line**HPL 520: Fund of Pract-Based Statistics****Credits:** 3**College:** Jefferson College of Population Health**Schedule Type:** Lecture, On-Line**HPL 530: EconAnalysis in Health Care****Credits:** 3**College:** Jefferson College of Population Health**Prerequisites:** HPL 500**Schedule Type:** Lecture**HPL 550: Comparative Health Systems****Credits:** 3**College:** Jefferson College of Population Health**Schedule Type:** Lecture, On-Line**HPL 552: Comparative Systems Health Law****Credits:** 3**College:** Jefferson College of Population Health**Schedule Type:** Lecture, On-Line, Seminar**HPL 560: CompHealth Finance&Economics****Credits:** 3**College:** Jefferson College of Population Health**Schedule Type:** Lecture, On-Line**HPL 600: Capstone Seminar****Credits:** 1.5-3**College:** Jefferson College of Population Health**Schedule Type:** On-Line, Seminar**HPL 601: Capstone Project****Credits:** 3**College:** Jefferson College of Population Health**Schedule Type:** Lecture, On-Line, Reseach**HPL 650: Capstone****Credits:** 3**College:** Jefferson College of Population Health**Prerequisites:** HPL 500 or HPL 550 and POP 500 and HPL 504 and HPL 511 and HPL 512 or HPL 515 and HPL 516 and HPL 505 and HPL 506 and HPL 520**Schedule Type:** On-Line**HPL 655: Capstone Extension****Credits:** 0**College:** Jefferson College of Population Health**Prerequisites:** HPL 650**Schedule Type:** On-Line**HPL 699: Independent Study****Credits:** 1-3**College:** Jefferson College of Population Health**Schedule Type:** Independent Study, Lecture, On-Line**HPL 700: Health Policy Profess Credits****Credits:** 1-99**College:** Jefferson College of Population Health**Schedule Type:** Transfer Credit**HPL 800: Elective Credits****Credits:** 3**College:** Jefferson College of Population Health**Schedule Type:** Transfer Credit

Health Professions Studies (HPS)

HPS 600: Fundamentals Applied Biostats**Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** On-Line**HPS 601: Appl Hlth Rsrch Design&Methods****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** On-Line**HPS 602: Responsible Conduct Research****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** On-Line**HPS 603: Health Systems Sciences****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** On-Line**HPS 604: Scholarly Writing Foundations****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** On-Line**HPS 610: Simulation in Health Prof Educ****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Lecture/On-Line, On-Line**HPS 620: Interprof Edu Collab Prac Hlth****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** On-Line**HPS 701: Doctoral Project Foundation****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** On-Line**HPS 702: Doctoral Project Strategy****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** On-Line**HPS 703: Doctoral Project Execution****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Lecture/On-Line, On-Line

Health Sci Pop Health (JCPH) (DHS)

DHS 655: Capstone Extension

Credits: 0

College: Jefferson College of Population Health

Schedule Type: On-Line

DHS 700: Descriptive Research Methods

Credits: 3

College: Jefferson College of Population Health

Prerequisites: HPL 512

Schedule Type: On-Line

DHS 701: Pop Health Research Methods

Credits: 3

College: Jefferson College of Population Health

Prerequisites: DHS 750 and HPL 512 and DHS 700

Schedule Type: On-Line

DHS 702: Pop Hlth Management Strategies

Credits: 3

College: Jefferson College of Population Health

Prerequisites: DHS 750 and HPL 512 and DHS 700 and DHS 751 and DHS 701 and HPL 550

Schedule Type: On-Line

DHS 703: Systematic Reviews & Analysis

Credits: 3

College: Jefferson College of Population Health

Schedule Type: On-Line

DHS 704: Pop Hlth Implementation Sci I

Credits: 3

College: Jefferson College of Population Health

Schedule Type: On-Line

DHS 705: Pop Hlth Implementation Sci II

Credits: 3

College: Jefferson College of Population Health

Schedule Type: Lecture/On-Line, On-Line

DHS 706: Academic & Prof Writing

Credits: 3

College: Jefferson College of Population Health

Schedule Type: On-Line

DHS 707: Concept of Practice-Based Stat

Credits: 3

College: Jefferson College of Population Health

Schedule Type: Lecture, Lecture/On-Line, On-Line

DHS 708: Concept of Prac-Based Stats II

Credits: 3

College: Jefferson College of Population Health

Schedule Type: Lecture, Lecture/On-Line, On-Line

DHS 750: Beginning Residency

Credits: 1

College: Jefferson College of Population Health

Schedule Type: Lecture, Lecture/On-Line, On-Line, Seminar

DHS 751: Spring Residency

Credits: 1

College: Jefferson College of Population Health

Schedule Type: Lecture, Lecture/On-Line, On-Line, Seminar

DHS 752: Fall Residency

Credits: 1

College: Jefferson College of Population Health

Schedule Type: Lecture, Lecture/On-Line, On-Line, Seminar

DHS 753: Spring Residency

Credits: 1

College: Jefferson College of Population Health

Schedule Type: Lecture/On-Line, On-Line, Seminar

DHS 754: Fall Residency

Credits: 1

College: Jefferson College of Population Health

Schedule Type: Seminar

DHS 755: Summer Residency

Credits: 1

College: Jefferson College of Population Health

Schedule Type: Lecture, Lecture/On-Line, On-Line

DHS 800: Dissertation I

Credits: 3

College: Jefferson College of Population Health

Schedule Type: Reseach

DHS 801: Dissertation II

Credits: 3

College: Jefferson College of Population Health

Schedule Type: On-Line

DHS 802: Dissertation III

Credits: 3

College: Jefferson College of Population Health

Schedule Type: Lecture, Lecture/On-Line, On-Line

Health Sciences (JCHP) (HSCI)

HSCI 610: Emergency Medical Technician

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Hybrid, Lecture/Lab

Healthcare Quality & Safety (HQS)

HQS 500: Intro Healthcare Qual & Safety

Credits: 3

College: Jefferson College of Population Health

Schedule Type: Independent Study, Lecture, Lecture/On-Line, On-Line, Seminar

HQS 502: Intro to International HQS

Credits: 3

College: Jefferson College of Population Health

Schedule Type: On-Line

HQS 504: High Reliability

Credits: 3

College: Jefferson College of Population Health

Schedule Type: On-Line

HQS 505: Adv Tools & Methods for HQS

Credits: 3

College: Jefferson College of Population Health

Schedule Type: Lecture, On-Line

HQS 507: Adv Appl of HQS in Clin Set**Credits:** 3**College:** Jefferson College of Population Health**Prerequisites:** HQS 500 and HQS 505 and HQS 509 and HQS 512 and HQS 515 and HPL 520 and OPX 520**Schedule Type:** Lecture, On-Line**HQS 508: Quality in Post-Acute Care Set****Credits:** 3**College:** Jefferson College of Population Health**Schedule Type:** On-Line**HQS 509: Appl Princ of Healthcare Qulty****Credits:** 3**College:** Jefferson College of Population Health**Schedule Type:** Lecture/On-Line, On-Line**HQS 510: Res&EvalMethods for Q&S Improv****Credits:** 3**College:** Jefferson College of Population Health**Schedule Type:** Lecture**HQS 512: Business Case for Quality****Credits:** 3**College:** Jefferson College of Population Health**Schedule Type:** On-Line**HQS 513: High Reliability for HC Leader****Credits:** 3**College:** Jefferson College of Population Health**Schedule Type:** On-Line**HQS 515: Appl Princ of Patient Safety****Credits:** 3**College:** Jefferson College of Population Health**Schedule Type:** Lecture/On-Line, On-Line**HQS 516: Teaching Quality & Safety****Credits:** 3**College:** Jefferson College of Population Health**Schedule Type:** On-Line**HQS 517: Teaching Hlth Systems Science****Credits:** 3**College:** Jefferson College of Population Health**Schedule Type:** On-Line**HQS 527: Lean Project****Credits:** 1**College:** Jefferson College of Population Health**Schedule Type:** Lecture**HQS 600: Capstone Seminar****Credits:** 1.5,3**College:** Jefferson College of Population Health**Schedule Type:** On-Line, Seminar**HQS 601: Capstone Project****Credits:** 3**College:** Jefferson College of Population Health**Schedule Type:** On-Line, Reseach**HQS 650: Capstone****Credits:** 1.5,3**College:** Jefferson College of Population Health**Prerequisites:** HQS 507**Schedule Type:** Lecture, On-Line**HQS 655: Capstone Extension****Credits:** 0**College:** Jefferson College of Population Health**Prerequisites:** HQS 650**Schedule Type:** On-Line**HQS 700: HQS Professional Credits****Credits:** 1-99**College:** Jefferson College of Population Health**Schedule Type:** Transfer Credit

Historic Preservation (MHP)

MHP 602: Uncovering the Past: Tools, Me

Buildings are silent witnesses to the Past. Rediscovering the "stories" of a building's many lives relies upon piecing together archival, physical, and ethnographic evidence. This course affords in-depth study of the techniques, strategies and resources employed to track down data, using written, graphic, and oral sources. Field trips to key archival repositories provide students with first-hand experience in collecting and interpreting documentary evidence to develop historical narratives. Cross-listed ARST-302

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Lab, Lecture, Lecture/Lab**MHP 603: Rest & Rehab of Modernst Bldgs**

Preservation of modern and mid-century modern buildings and sites is the next frontier within the profession as the significance of this architectural period is recognized and materials with which they were built reach the end of their serviceable lives. Working in track-based teams, students collaborate to determine historical significance and identify character-defining features of a building in the Philadelphia region, assess its condition, and prepare design solutions for adaptive reuse while preserving historic character.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Lecture/Lab**MHP 604: Consv Historic Build Interiors**

Complementing the Building Conservation course this course provides a comprehensive overview of interior materials used in historic building interiors and the ongoing processes of their material deterioration, contemporary approaches to their treatment, and sustainability concepts of embodied energy and life cycle analysis as these pertain to building conservation. Through site visits, demonstrations, laboratory exercises, guided research, and discussions the course explores investigative techniques specific to historic interiors; diagnosis of existing conditions, including non-destructive and laboratory testing methods; and design of appropriate interventions to remedy observed problems. Students will collect, present, critically review findings and formulate recommendations for conservation and treatment of historic interior materials.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Lecture/Lab

MHP 605: Preservation Thesis

The second in a two-term sequence, this course culminates in a thesis that demonstrates the student's ability to formulate a viable, discipline specific hypothesis and conduct in-depth, original research. A thesis must expand the existing body of knowledge on the topic and introduce new ways of thinking, thereby contributing to the discourse in the field. Through the thesis project, the student demonstrates overall competency in principles, theory, practices and methodologies of Historic Preservation, accomplishment in a chosen area of specialization, as well as the acumen to perform independent research.

Credits: 4

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: Lecture, Seminar

MHP 605E: Thesis Extension

The second in a two-term sequence, this course culminates in a thesis that demonstrates the student's ability to formulate a viable, discipline specific hypothesis and conduct in-depth, original research. A thesis must expand the existing body of knowledge on the topic and introduce new ways of thinking, thereby contributing to the discourse in the field. Through the thesis project, the student demonstrates overall competency in principles, theory, practices and methodologies of Historic Preservation, accomplishment in a chosen area of specialization, as well as the acumen to perform independent research. MHP-605E is an extension for students requiring additional time to complete their thesis. Permission of the program director is required.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: By Appointment, Lecture/Lab, On-Line

MHP 606: Historic Pres Doc: Photo

Begun in 1933, the Historic American Building Survey (HABS) is the first federal preservation program established to document America's architectural heritage. In this course students learn the fundamentals of HABS documentation methods for the production of archival records of historic structures and places, utilizing the 4 x 5 large-format camera. Through field work and labs, students photograph, print, research and narrate comprehensive, technically proficient photographic essays that represent the salient aspects of historic structures, complexes and sites in accordance with HABS standards.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: Lecture, Lecture/Lab

MHP 607: Adaptive Reuse Studio

This studio will outline the methodology of adaptive reuse of historic buildings, the philosophical motives behind reuse, and engage students in deploying the tenets of historic preservation and sustainable design in adaptive reuse design solutions. Adaptive reuse concepts will be explored through lectures, readings and discussions, field trips and individual and group assignments and presentations. The course will lead students through an introduction to historic preservation theory as it relates to the built environment and current standards for adaptive reuse in the United States and abroad. The Existing Building Code and its interpretation for adaptive reuse projects and techniques for working with and/or supplementing existing building structures, and the integration of systems into historic buildings, will also be explored. Prerequisites: Permission of Director

Credits: 6

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: Studio

MHP 620: Thesis Preparation

The first in a two-term sequence, this seminar guides students in the formulation of a research question tailored to the individual's professional goals whose original analysis and proposed solution contributes to the discourse in the field. Avenues of inquiry within the discipline are wide-ranging, encompassing either research-based or design-driven topics, as determined by the student's track. Working with both faculty and professional advisors, each student investigates current debates relative to the topic, significant case studies and core literature, in addition to topic-specific research strategies. Through the thesis project, students demonstrate overall competency in principles, theory, practices and methodologies of the Historic Preservation, accomplishment in a chosen area of specialization, as well as the acumen to perform independent research.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: Lecture, On-Line

MHP 621: Issues of Contemporary Preserv

Comprehensive analysis of preservation history, theories, policies, foundational principles and practices as applied to intersecting contemporary issues, namely preservation and sustainable design, adaptive reuse of historic buildings and sites, the role of preservation as a generator of urban revitalization and preservation planning paradigms. Topics are investigated from both micro and macro perspectives. Cross-listed ARST-221

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: Lecture

MHP 622: Adptv Reuse & Urb Revitlzn

This Collaborative Project foregrounds preservation protocols on two intersecting scales—the micro level of adaptive reuse/design of an historic structure and the macro level of its urban environment. Working with a specific site and community-based client in the Philadelphia area, students engage in the process of adaptive reuse of historic buildings and the philosophical motives behind reuse, including the tenets of sustainable design, while also investigating preservation interventions as catalyst for urban regeneration. A primary focus of the Project is analysis of preservation strategies against the backdrop of the socio-economic and political contexts that impact a neighborhood's health and development.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: Lecture/Lab, Lecture/Studio Combination, Studio

MHP 623: Preservation Economics

Course addresses a critical issue facing the contemporary city, namely how to creatively invigorate urban communities—architecturally, environmentally and fiscally. By assessing the macro and microeconomics of neighborhoods, students evaluate the social, political and financial impact of sustainable planning strategies, including Smart Growth, Brownfield and Infill redevelopment, Transit Oriented Development (TOD), New Urbanism "live, work, play," Mixed-use environments, and the Adaptive Reuse of existing buildings. Student teams investigate "real world" projects, using Philadelphia as a living laboratory. The course affords students the opportunity to visit and dissect actual development sites and measure sustainable interventions as a springboard to urban revitalization.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: Hybrid, Lecture, On-Line

MHP 624: Architectural Forensic and Doc

Students decode a building's past by deciphering and recording the physical evidence of its evolution. Students learn the fundamentals of professional field techniques used to document and interpret historic structures and places, utilizing sketching and technical drawing via hand drafting and computer modeling. Through field work and labs, students survey, sketch, draft, and annotate comprehensive, technically proficient drawings that represent the salient aspects of historic structures and sites. Procedures and techniques for analyzing historic buildings to determine original appearance and the nature, extent, and chronology of physical change which has occurred over their history are introduced. Cross-listed ARST-324

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Lab, Lecture, Lecture/Lab**MHP 626: Building Conservation**

Through site visits, demonstrations, laboratory exercises, guided research, and discussions, this course provides a comprehensive overview of structural and exterior envelope materials used in historic buildings and the ongoing processes of their material deterioration, contemporary approaches to their treatment, and sustainability concepts of embodied energy and life cycle analysis as these pertain to building conservation. Topics include: investigative techniques for historic structures; diagnosing existing conditions, including non-destructive and laboratory testing methods; and designing appropriate interventions to remedy observed problems. Students will collect, present, critically review findings and formulate recommendations for conservation. Cross-listed ARST-266

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Lab, Lecture, Lecture/Lab**MHP 699: His. Preserv. Ind. Study**

Independent Study is a student-centered learning activity that affords graduate students in Historic Preservation the opportunity to pursue special interests or research not treated in the regular curriculum. The student will conduct in-depth analysis on a topic pertinent in Historic Preservation and craft a final project. The Independent Study course fosters a deeper understanding in a specific area or topic and is focused on research, literature review, or extension/enhancement of other coursework. The syllabus is personalized to the student's interests and concerns and is modifiable to create an exceptional learning experience. Specific learning goals are to be listed in the student's Independent Study form application. The Independent Study course requires approval by the program director to enroll. All work is conducted under supervision and evaluation of a faculty member. Students must have completed 12 graduate credits in Historic Preservation or by permission of the program director.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Independent Study, Lecture

Human Genetics (HG)

HG 501: Intro to Genetic Counseling**Credits:** 2**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture, Seminar**HG 502: Psychosocial Iss in Gen Couns****Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture, Seminar**HG 511: Gen Counseling Theory & Prac****Credits:** 2**College:** Jefferson College of Life Sciences**Schedule Type:** Exam, Lecture, Lecture/On-Line, On-Line**HG 512: Gen Couns Theory & Practice II****Credits:** 2**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture, On-Line**HG 531: Gen Couns Workshop & Sem I****Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** Seminar**HG 532: Gen Couns Workshop & Sem II****Credits:** 2**College:** Jefferson College of Life Sciences**Schedule Type:** Seminar**HG 550: ClinApp for Genetic Counsel I****Credits:** 2**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture, Lecture/On-Line, On-Line, Seminar**HG 551: Clinical Applications II****Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** Clinical, Lecture, Seminar**HG 552: Clinical Applications III****Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** Clinical, Lecture, Seminar**HG 570: Res Des & Method for Gen Couns****Credits:** 2**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture, Seminar**HG 580: Prac Issues in Gen Counseling****Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture, On-Line**HG 601: Medical Genetics****Credits:** 2**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture, On-Line, Seminar**HG 602: Medical Genetics II****Credits:** 2**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture, Seminar**HG 611: Metabolic Genetics I****Credits:** 2**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture, On-Line, Seminar**HG 612: Metabolic Genetics II****Credits:** 2**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture, On-Line

HG 637: Human Genetics**Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture, On-Line, Seminar**HG 660: Ocular Genetics****Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture, Lecture/On-Line, On-Line, Seminar**HG 670: ClinCardiovascular Genetics****Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture, Seminar**HG 680: Clinical Cancer Genetics****Credits:** 2**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture, Seminar**HG 690: Gen Basis of Neur & Psych Dis****Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture, On-Line**HG 701: Clinical Lab/Rotation****Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** Clinical, Practicum**HG 702: Clinical/Lab Rotation****Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** Clinical, Lab**HG 703: Clinical/Lab Rotation****Credits:** 2**College:** Jefferson College of Life Sciences**Schedule Type:** Clinical, Lab**HG 704: Clinical/Lab Rotation****Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Clinical, Lab**HG 705: Clinical/Lab Rotation****Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Clinical**HG 706: Clinical/Lab Rotation****Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Clinical**HG 801: Thesis I****Credits:** 2**College:** Jefferson College of Life Sciences**Schedule Type:** Reseach**HG 802: Thesis II****Credits:** 2**College:** Jefferson College of Life Sciences**Schedule Type:** Seminar**HG 803: Thesis III****Credits:** 2**College:** Jefferson College of Life Sciences**Schedule Type:** Seminar

IMBA Online Program Foundation (IMFX)

IMFX 503: Foundations of Economics

This course introduces students to basic microeconomic and macroeconomic concepts including supply and demand, economic indicators, labor economics, international trade, and fiscal and monetary policy. The course focuses on the relevance of these concepts for organizations and organizational decision-making.

Credits: 3**College:** School of Business**Schedule Type:** On-Line**IMFX 504: Financial & Managerial Acct.**

This course is designed to introduce students to the fundamentals of financial and managerial accounting. Accounting information is discussed as a basis for planning, control and managerial decision-making.

Credits: 1.5**College:** School of Business**Schedule Type:** On-Line**IMFX 505: Financial Management**

This introductory level finance course examines the role of financial decision-makers at the corporate level. Emphasis is placed on the goals of the firm, efficient market hypothesis, discounted cash flow analysis, and the trade-off between risk and return.

Credits: 1.5**College:** School of Business**Schedule Type:** On-Line**IMFX 508: Stat. Analysis for Bus Decisn**

This is a foundations course in Statistics for the MBA program.

Descriptive statistical measures and probability theory are combined to provide the basis for statistical decision-making techniques. Areas covered include: measures of central tendency, measures of variability, hypothesis testing and confidence intervals, one- and two-way analysis of variance, Chi-squares and non-parametric statistical techniques.

Credits: 1.5**College:** School of Business**Schedule Type:** On-Line**IMFX 510: Operations Management**

This introductory level course provides students with an understanding of the latest quantitative tools for corporate decision-making. Topics include quality-control applications, optimization techniques (including linear programming), the simplex method, the transportation model, and the assignment model. Other topics include time-series analysis, queuing theory and an introduction to total quality management. Computer applications, case analysis and problem-solving sets are used throughout the course.

Credits: 1.5**College:** School of Business**Schedule Type:** On-Line

IMBA Program Foundation Course (IMBF)

IMBF 504: Financial & Managerial Acct.

This course is designed to introduce students to the fundamentals of financial and managerial accounting. Accounting information is discussed as a basis for planning, control and managerial decision-making.

Credits: 1.5

College: School of Business

Schedule Type: By Appointment, On-Line

IMBF 505: Financial Management

This introductory level finance course examines the role of financial decision-makers at the corporate level. Emphasis is placed on the goals of the firm, efficient market hypothesis, discounted cash flow analysis, and the trade-off between risk and return.

Credits: 1.5

College: School of Business

Schedule Type: By Appointment, On-Line

IMBF 508: Stat. Analysis for Bus Decisn

This is a foundations course in Statistics for the MBA program. Descriptive statistical measures and probability theory are combined to provide the basis for statistical decision-making techniques. Areas covered include: measures of central tendency, measures of variability, hypothesis testing and confidence intervals, one- and two-way analysis of variance, Chi-squares and non-parametric statistical techniques.

Credits: 1.5

College: School of Business

Schedule Type: On-Line

IMBF 510: Operations Management

This introductory level course provides students with an understanding of the latest quantitative tools for corporate decision-making. Topics include quality-control applications, optimization techniques (including linear programming), the simplex method, the transportation model, and the assignment model. Other topics include time-series analysis, queuing theory and an introduction to total quality management. Computer applications, case analysis and problem-solving sets are used throughout the course.

Credits: 1.5

College: School of Business

Schedule Type: On-Line

IMBF 511: Microeconomics

This course introduces students to basic microeconomic concepts including supply and demand, elasticity, taxes, price ceilings and floors, consumer choice and industry dynamics. The course focuses on the relevance of these concepts for individual and organizational decision-making.

Credits: 1.5

College: School of Business

Schedule Type: On-Line

IMBF 512: Macroeconomics

This course introduces students to basic macroeconomic concepts starting with supply and demand, but focusing on international trade, the effects of tariffs, the importance of growth, definitions of unemployment, and distributive impacts of inflation. The course focuses on the dynamic aggregate demand and supply model to forecast the impacts of monetary and fiscal policy responses to fluctuations in growth, inflation and unemployment.

Credits: 1.5

College: School of Business

Schedule Type: On-Line

Immunology & Microbial Patho (IMP)

IMP 505: Fundamentals in Immunology

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Lecture

IMP 505 A: Basic Fund. of Immunology

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Lecture

IMP 505 B: Adv Fundamentals of Immunology

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Lecture

IMP 505A: Fundamentals of Immunology

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Lecture, On-Line

IMP 505B: Immune System in Health&Diseas

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Lecture, On-Line

IMP 530: Infection & Immunity

Credits: 3

College: Jefferson College of Life Sciences

Prerequisites: IMP 505A and IMP 600A

Schedule Type: Seminar

IMP 600: Virology

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lecture

IMP 600A: BacteriologyMycology&Parasitol

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Lecture, On-Line, Seminar

IMP 600B: Virology

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Lecture, On-Line, Seminar

IMP 601: Pre-Entry Rotation

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lab

IMP 605: AdvCellular/MoleculImmuno

Credits: 3

College: Jefferson College of Life Sciences

Prerequisites: GC 550 and IMP 505

Schedule Type: Lecture

IMP 613: Retroviruses

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lecture

IMP 620: Research Rotation In IMP II

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lab, Reseach

IMP 622: Tumor Immunology

Credits: 3

College: Jefferson College of Life Sciences

Prerequisites: IMP 505

Schedule Type: Lecture

IMP 623: Immunopathology

Credits: 3

College: Jefferson College of Life Sciences

Prerequisites: IMP 505

Schedule Type: Seminar

IMP 630: Research Rotation in IMP III

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lab, Reseach

IMP 631: Advanced Cellular Immunology

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lecture

IMP 632: MoleculImmuno&Immunogenetics

Credits: 3

College: Jefferson College of Life Sciences

Prerequisites: IMP 505A or IMP 505B

Schedule Type: Lecture

IMP 645: Adv Cellular & MoleculImmuno

Credits: 3

College: Jefferson College of Life Sciences

Prerequisites: GC 550 and IMP 505

Schedule Type: Lecture

IMP 655: Adv Topics in Microbial Pathog

Credits: 3

College: Jefferson College of Life Sciences

Prerequisites: GC 550 or GC 550D

Schedule Type: Seminar

IMP 685: Adv Top Virology&Neurovirology

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lecture

IMP 710: Seminar in Micro & Immunology

Credits: 1

College: Jefferson College of Life Sciences

Schedule Type: Lecture, On-Line, Seminar

IMP 712: Current Literature in IMP I

Credits: 1

College: Jefferson College of Life Sciences

Schedule Type: Seminar

IMP 720: Seminar

Credits: 1

College: Jefferson College of Life Sciences

Schedule Type: Lecture, On-Line, Seminar

IMP 722: Current Literature in IMP II

Credits: 1

College: Jefferson College of Life Sciences

Schedule Type: On-Line, Seminar

IMP 730: Seminar

Credits: 1

College: Jefferson College of Life Sciences

Schedule Type: Lecture, On-Line, Seminar

IMP 732: Current Literature in IMP III

Credits: 1

College: Jefferson College of Life Sciences

Schedule Type: Lecture, On-Line, Seminar

Immunology (IM)

IM 505: Fundamen of Immunology

Credits: 4

College: Jefferson College of Life Sciences

Schedule Type: Lecture

IM 523: Parasite Immunology

Credits: 3

College: Jefferson College of Life Sciences

Prerequisites: IM 530

Schedule Type: Lecture

IM 530: Infection and Immunity

Credits: 2

College: Jefferson College of Life Sciences

Prerequisites: IM 505

Schedule Type: Lecture

IM 610: Res Rotation-Immunol I

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lab

IM 620: Res Rotation-Immunol II

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lab

IM 622: Tumor Immunology

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Lecture

IM 623: Immunopathology

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Seminar

IM 630: Res Rotation-Immunol III

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lab

IM 631: Advanced Cellular Immun**Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture**IM 632: Molec IM/Immunogenetics****Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture**IM 712: Curr Lit in Immuno I****Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** Seminar**IM 722: Curr Lit in Immuno II****Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** Seminar**IM 732: Curr Lit in Immuno III****Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** Seminar

Industrial /Interactive Dsgn Foundation (IDF)

IDF 500: Drawing: Design & Development

This is an advanced drawing course developed for designers of all disciplines who want to improve the designer's ability to apply knowledge imparted in other courses to the development of designs. Wherever possible the subject matter of the students' design studio courses will be used as the subject matter for drawing exercises.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** By Appointment - 1 student, Lecture, Lecture/Studio Combination, On-Line, Studio**IDF 502: Found in Web Design & Strategy****Credits:** 3**College:** School of Design & Engineering**Schedule Type:** Lecture, Studio**IDF 503: Electronic Comm Sem I****Credits:** 3**College:** School of Design & Engineering**Schedule Type:** Lecture**IDF 505: Mat & Proc Manufacturing**

This course is concerned with the exploration of materials used in the mass production of products, the processes used to shape these materials and the applicability of these materials to product-design solutions. Students should be prepared to visit a number of manufacturing facilities. A survey of rapid prototyping technologies completes the course.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** On-Line, Studio**IDF 506: Application Software****Credits:** 3**College:** School of Design & Engineering**Schedule Type:** Lecture**IDF 507: Design I for Industrial Design**

This studio is an introduction to design for undergraduate majors in industrial design. The course will provide an intensive introduction to design as an iterative problem-solving process. It will also introduce strategies for making and analyzing form, and present basic techniques of two-dimensional visualization and documentation of three-dimensional objects and principles of design critique, testing and research.

Credits: 4**College:** School of Design & Engineering**Schedule Type:** Studio**IDF 508: Materials & Processes Fab**

This course introduces shop techniques as they pertain to industrial design model-making and prototype construction. All industrial design students must take this course for shop equipment safety training and pass a safety test. Throughout the semester, attention is given to safety precautions for the shop, along with demonstrations of shop equipment and fabrication processes. A major portion of the course will consist of developing an understanding of the materials and machinery commonly used by industrial designers for producing both working and appearance models.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture, Lecture/Studio Combination, Studio**IDF 509: Rendering for Indust Design**

An introduction to the traditional techniques and materials that industrial designers use to develop and represent three-dimensional concepts and ideas. Students become proficient in the use of pencils, markers, pastels and airbrush on a variety of media. Emphasis is placed on understanding the significance of color and graphic applications for industrial design.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture, Lecture/Studio Combination, Studio**IDF 510: Ergonomic Studies**

This course analyzes human factors as related to broad aspects of design development. It explores the issues of operator/ user human factors and their impact on design. The outcome of this course will be to ascertain the relationship of basic human dimensions on product design. Subjects include systems reliability, sensory and motor processes, basic research techniques and anthropometric studies.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture, Lecture/Lab**IDF 511: Interactive Design III****Credits:** 6**College:** School of Design & Engineering**Schedule Type:** Studio**IDF 512: Interactive Design IV****Credits:** 6**College:** School of Design & Engineering**Schedule Type:** Studio**IDF 513: Design V for Industrial Design****Credits:** 4**College:** School of Design & Engineering**Schedule Type:** Studio

IDF 514: Drawing Essentials

This drawing course emphasizes the understanding of space and alternative approaches for recording and expressing it. Much information in regard to drawing practice will be accumulated during this semester such as mark making skills, developing sensitivity to light and shade, experimentation with media and the use of color as an introduction to figure drawing. *This course should not be taken by students who have received credit for DRAW 101 or DRAW 201 in the School of Design & Engineering or the School of Architecture*

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture, Lecture/Studio Combination, Studio**IDF 515: Design VI for Industrial Dsgn****Credits:** 6**College:** School of Design & Engineering**Schedule Type:** Studio

Industrial Design (INDD)

INDD 500: Skills & Methods for Ind Dsgn

An intensive summer workshop for graduate students matriculating without an industrial design background. This course replicates much of the skills-based content covered in undergraduate Design I, and goes on to cover shop and prototyping issues otherwise found in Materials and Process: Shop Techniques, as well as basic materials and process selection for manufacturing. Projects are designed, but this class focuses on techniques and skills rather than the objects designed. Note: This course meets from 9-5, the last week (one week only) of the SM4W semester. Student must register for course by 1st day of the SM4W term.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture**INDD 501: Design 1 for Industrial Design****Credits:** 4**College:** School of Design & Engineering**Schedule Type:** Studio**INDD 503: Vis for Industrial Design I****Credits:** 3**College:** School of Design & Engineering**Schedule Type:** Lecture, Lecture/Studio Combination, On-Line, Studio**INDD 504: Materials & Process Fab****Credits:** 3**College:** School of Design & Engineering**Schedule Type:** Lecture, Lecture/Studio Combination, Studio**INDD 505: Vis for Industrial Design II****Credits:** 3**College:** School of Design & Engineering**Schedule Type:** Lecture, Lecture/Studio Combination, Studio**INDD 506: CAD I for Industrial Design****Credits:** 3**College:** School of Design & Engineering**Schedule Type:** Lecture, Lecture/Lab, On-Line**INDD 507: Mats & Proc: Manufacturing****Credits:** 3**College:** School of Design & Engineering**Schedule Type:** Lecture, Lecture/Studio Combination, On-Line, Studio**INDD 510: Ergonomic Studies****Credits:** 3**College:** School of Design & Engineering**Schedule Type:** Lab, Lecture, Lecture/Lab**INDD 600A: Intercultur Innovatn/Stdy Abr**

During a short experience in a foreign country, students will observe and document cultural and demographic difference between countries through formal lectures, and field observations and team exercises. The work in this class is informed by the use of user-based observational research techniques, which students will adapt and propose.

Documentation is brought back to the US for use in the MSID-600B

Intercultural Innovation: Interdisciplinary Project Component class.

Students should plan on taking BOTH classes.

Credits: 1**College:** School of Design & Engineering**Schedule Type:** Lecture**INDD 600B: Intercultur Innovatn/Stdy Abr**

This is the second in a two-course interdisciplinary course sequence.

This class builds on work done in the MSID-600A Intercultural

Innovation: Study Abroad Component course. Students should plan

on taking BOTH classes. In MSID-600B, students bring research

by interdisciplinary teams outside the US into well-documented

opportunities for new products, business platforms or systems. In a

series of team meetings and design critiques, they then turn them into

cohesive proposals including both design and business elements.

Credits: 2**College:** School of Design & Engineering**Prerequisites:** INDD 600A [Min Grade: C]**Schedule Type:** Lecture**INDD 700: Research & Desn Process Meths**

This course gives students the tools they need to find and frame

opportunities, to construct successful design briefs and to evaluate

design in progress, and to explore and document new generative and

evaluative research techniques and defining basics of professional

practice. class projects will support studio work, as well as contributing

to ongoing research initiatives.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture, Lecture/Studio Combination, Studio**INDD 701: Design Bus & Entrepreneurship**

This course addresses specialized topics in professional practice

relevant to graduate industrial design students. These include current

approaches to intellectual property, professional ethics, contracts,

management practices, and structures of practice and employment in

the field. In addition, students research fields within industrial design to

identify potential career paths, plan and execute individual strategies

for networking and interviewing, and prepare portfolio deliverables and

other self-promotion materials in consultation with faculty and guest

critics.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture

INDD 703: User Centered Design

This course is the first in the MSID studio sequence. This studio concentrates on user-centered design techniques, including observational/ethnographic research methods and methods incorporating users and other stakeholders into the design process. Each studio will be expected to do extensive generative research and to publicize/archive its research and conclusions.

Credits: 4**College:** School of Design & Engineering**Schedule Type:** Lecture**INDD 704: Wkshop: Interactive Prototypn**

This course addresses the need by industrial design professionals to create interactive, intelligent systems comprising both hardware and software components, and to test, iterate, assess and defend these solutions based on principles of cognitive and physical human factors. Through quick, iterative prototyping and testing of interfaces based on simple microcontrollers, this class teaches basic programming, integration of electronic sensors and outputs into tangible interfaces, and principles of testing and cognitive ergonomics for use in assessment of interactive interfaces.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture**INDD 705: Collaborative Innovatn Studio**

This course is the second in the MSID studio sequence. This studio provokes interdisciplinary activity through a project centered on designed systems, which requires industrial design but requires inputs from other disciplines. Types of projects might include: - ID + corporate brand experience, - ID + materials science product development, - Products of service/business, platform design, - Entrepreneurial design (design + business plan), - Software/hardware systems

Credits: 5**College:** School of Design & Engineering**Prerequisites:** INDD 703 [Min Grade: C]**Schedule Type:** Lecture, Studio**INDD 707: Current Issues in Ind Dsg**

In this class, students map and discuss the major influences on industrial design today, as well as modeling the lifetime learning and assessment of theory that are necessary for effective professional design and critique. The class is a seminar and is thematic rather than historical in focus. The reading list is expected to include blogs and periodicals, as well as books, and will change frequently.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture**INDD 791: Internship**

This course allows students to pursue direct experience in a company or organization that is actively engaged in design-related work. Students augment and enrich their overall education at the University by learning through direct work experience on design projects. Permission required, see program director or Career Services office for details.

Credits: 3**College:** School of Design & Engineering**Prerequisites:** INDD 705 [Min Grade: C]**Schedule Type:** Internship 3 Credits**INDD 798: Independent Study**

This course will allow students to pursue individual areas of interest while working jointly with a faculty member. Enrollment is subject to the availability and approval of both the program director and faculty member. The student must have 18 or more graduate-level credits, and a prospectus of the proposed independent study must be approved at least one month prior to registration. See appropriate form available online at Registrar's website, www.philau.edu/registrar/.

Credits: 3**College:** School of Design & Engineering**Prerequisites:** INDD 705 [Min Grade: C]**Schedule Type:** Independent Study**INDD 803: Master's Proj I:Implementation**

The 2-semester capstone project sequence stresses the importance of iterative prototyping and evaluation in current design practice by devoting two semesters to the ID Capstone project. In this first capstone project semester, students begin work with a team of collaborators within and outside the University. Students have weekly progress critiques with studio faculty and other students, as well as regular meetings with outside project stakeholders. The semester concludes in a progress presentation with outside critics.

Credits: 4**College:** School of Design & Engineering**Prerequisites:** INDD 705 [Min Grade: C]**Schedule Type:** By Appointment - 1 student, Lecture**INDD 804: Master's Proj II: Dev & Eval**

The MSID master's project sequence includes two courses. In this second semester, students work with collaborators and critics/clients within and outside the University to develop, detail and revise designs to a professional level, and to test their performance in the real world. Activities include weekly critiques with studio faculty and other students, as well as meetings with outside project stakeholders. The semester concludes with in-person defense of the work and a display at the CDEC Spring Design Show.

Credits: 5**College:** School of Design & Engineering**Prerequisites:** INDD 803 [Min Grade: C]**Schedule Type:** By Appointment - 1 student, Lecture

Innovator MBA (IMBA)

IMBA 600: Management Concepts

This course introduces students to the theory and practice of managerial functions and decision-making models in traditional and more innovative organizations. Students are familiarized with the importance of organizational communications, including verbal and written communications and the criticality of using multiple communication channels. Students explore basic negotiation techniques and methods of conflict resolution.

Credits: 1.5**College:** School of Business

Prerequisites: (IMBF 503 or IMBF 503 Waiver with a score of 1) and (IMBF 504 or IMBF 504 Waiver with a score of 1) and (IMBF 505 or IMBF 505 Waiver with a score of 1) and (IMBF 508 or IMBF 508 Waiver with a score of 1) and (IMBF 510 or IMBF 510 Waiver with a score of 1) [Min Grade: C]

Schedule Type: Lecture, Online By Appointment 8 Week, On-Line

IMBA 601: Marketing Concepts

This course provides students with a broad understanding of the various organizational marketing functions including the development, positioning, pricing, distribution, and promotion of products, services, and business ideas. Attention is focused on understanding of the basic marketing concepts including strategic planning, marketing mix, market segmentation, branding, consumer research, and marketing research and applying the knowledge to formulate marketing strategies for business opportunities.

Credits: 1.5

College: School of Business

Prerequisites: (IMBF 503 or IMBF 503 Waiver with a score of 1) and (IMBF 504 or IMBF 504 Waiver with a score of 1) and (IMBF 505 or IMBF 505 Waiver with a score of 1) and (IMBF 508 or IMBF 508 Waiver with a score of 1) and (IMBF 510 or IMBF 510 Waiver with a score of 1) [Min Grade: C]

Schedule Type: By Appointment - 1 student, Lecture, Online By Appointment 8 Week, On-Line

IMBA 602: Managing Innovative People & Teams

Managing Innovative People and Teams This course addresses the skills and attitudes that support leadership in complex, innovative organizations under conditions of uncertainty and change. Students will explore the concept of self-leadership, managing change, ethical decision-making, power and influence, motivation, facilitation of diverse teams, conflict resolution, and organizational culture. The course begins with creative exercises in leadership style self-assessment and relates these results to leadership in new, innovative organizational structures.

Credits: 3

College: School of Business

Prerequisites: (IMBF 503 or IMBF 503 Waiver with a score of 1) and (IMBF 504 or IMBF 504 Waiver with a score of 1) and (IMBF 505 or IMBF 505 Waiver with a score of 1) and (IMBF 508 or IMBF 508 Waiver with a score of 1) and (IMBF 510 or IMBF 510 Waiver with a score of 1) [Min Grade: C]

Schedule Type: Lecture, On-Line

IMBA 604: Business Model Innovation

In this course students fully explore how an organization creates, delivers, and captures value through a customer-centric approach to business model innovation. The impact of industry disruption through business model innovation will be explored as students analyze and evaluate existing models. Using creative thinking and specific patterns, students will gain experience in planning and executing new models to address the complex challenges facing businesses from a variety of industries in the market place today.

Credits: 3

College: School of Business

Prerequisites: (IMBF 503 or IMBF 503 Waiver with a score of 1) and (IMBF 504 or IMBF 504 Waiver with a score of 1) and (IMBF 505 or IMBF 505 Waiver with a score of 1) and (IMBF 508 or IMBF 508 Waiver with a score of 1) and (IMBF 510 or IMBF 510 Waiver with a score of 1) [Min Grade: C]

Schedule Type: By Appointment - 4 students, Lecture, On-Line

IMBA 625: Communication, Negotiation, Creative Economy

This course covers the concepts and art of effective management communications and negotiations in the business environment. The total communications process ? verbal, nonverbal, presentation, written and electronic ? is reviewed in the context of today's work environment. The perspectives and needs of top management, interactive teams, individual contributors, and clients are examined and translated into professional practices. Experiential exercises and class discussions will build participants' understanding of styles and skills in negotiating. Coursework will focus on the uses of power, influence, and negotiating styles, methods of conflict resolution and means of influencing others.

Credits: 3

College: School of Business

Prerequisites: (IMBF 503 or IMBF 503 Waiver with a score of 1) and (IMBF 504 or IMBF 504 Waiver with a score of 1) and (IMBF 505 or IMBF 505 Waiver with a score of 1) and (IMBF 508 or IMBF 508 Waiver with a score of 1) and (IMBF 510 or IMBF 510 Waiver with a score of 1) [Min Grade: C]

Schedule Type: Lecture, Lecture/On-Line, On-Line

IMBA 627: Competitive Tech Intelligence

This course will focus on the latest technological advances for managing data and communications effectively. Students will acquire the skills and concepts necessary to use a system to handle data efficiently for large and small organizations, national or international in scope. Network technology and usage of computer networks, as well as ethical and security issues will also be addressed. The concepts of telecommunications and the costs and benefits associated with this transmission of information will be explored. Methods of instruction include hands-on/application orientation.

Credits: 3

College: School of Business

Prerequisites: (IMBF 503 or IMBF 503 Waiver with a score of 1) and (IMBF 504 or IMBF 504 Waiver with a score of 1) and (IMBF 505 or IMBF 505 Waiver with a score of 1) and (IMBF 508 or IMBF 508 Waiver with a score of 1) and (IMBF 510 or IMBF 510 Waiver with a score of 1) [Min Grade: C]

Schedule Type: Lecture, Lecture/On-Line, On-Line

IMBA 628: Accounting for Management Decisions

This course provides students previously exposed to financial and managerial accounting principles an opportunity to study the structure and use of accounting systems designed to aid management in controlling costs and profits. The course stresses the following: financial statement interpretation as a basis for decision making, cash flow analysis, cash budgeting, cost volume profit analysis, costing and interpretation of manufacturing systems and the impact of international competition, responsibility accounting and the impact of inflation.

Credits: 3

College: School of Business

Prerequisites: (IMBF 503 or IMBF 503 Waiver with a score of 1) and (IMBF 504 or IMBF 504 Waiver with a score of 1) and (IMBF 505 or IMBF 505 Waiver with a score of 1) and (IMBF 508 or IMBF 508 Waiver with a score of 1) and (IMBF 510 or IMBF 510 Waiver with a score of 1) [Min Grade: C]

Schedule Type: Lecture, On-Line

IMBA 629: Financial Policy and Planning

This course focuses on the investment and financing decisions of firms. Topics include capital budgeting, cash management and cash flow analysis, capital structure, dividends and international operations. Financial policy making is considered within the context of contemporary valuation and risk management theories. Various financial planning models are analyzed in the course.

Credits: 3

College: School of Business

Prerequisites: (IMBF 503 or IMBF 503 Waiver with a score of 1) and (IMBF 504 or IMBF 504 Waiver with a score of 1) and (IMBF 505 or IMBF 505 Waiver with a score of 1) and (IMBF 508 or IMBF 508 Waiver with a score of 1) and (IMBF 510 or IMBF 510 Waiver with a score of 1) [Min Grade: C]

Schedule Type: By Appointment - 1 student, By Appointment, Lecture, On-Line

IMBA 630: Operations Systems Perspectiv

This course will focus on the mathematical models and methods available for use in formulating and analyzing business decision-making problems in industry. Areas of study include: probability theory, decision analysis, game theory, forecasting techniques, project management, queuing models, allocating scarce resources using linear programming and integer-programming techniques, and deterministic and probabilistic inventory models.

Credits: 3

College: School of Business

Prerequisites: (IMBF 503 or IMBF 503 Waiver with a score of 1) and (IMBF 504 or IMBF 504 Waiver with a score of 1) and (IMBF 505 or IMBF 505 Waiver with a score of 1) and (IMBF 508 or IMBF 508 Waiver with a score of 1) and (IMBF 510 or IMBF 510 Waiver with a score of 1) [Min Grade: C]

Schedule Type: By Appointment, Lecture, On-Line

IMBA 642: Strat Insight & Implementation

This course explores the strategic visioning, planning and implementation process, with a focus on global industries and the challenges faced by businesses in an increasingly dynamic environment. Students analyze strategic threats and opportunities that confront businesses across the globe in the 21st century.

Credits: 3

College: School of Business

Prerequisites: (IMBF 503 or IMBF 503 Waiver with a score of 1) and (IMBF 504 or IMBF 504 Waiver with a score of 1) and (IMBF 505 or IMBF 505 Waiver with a score of 1) and (IMBF 508 or IMBF 508 Waiver with a score of 1) and (IMBF 510 or IMBF 510 Waiver with a score of 1) [Min Grade: C]

Schedule Type: By Appointment - 1 student, Lecture, On-Line

IMBA 700: Intl. Economic and Finance

This course explores interrelationships between economic growth/development theories and financial applications in global markets, emphasizing international financial management techniques and practices. Topics include international trade, balance of payments, foreign exchange markets and risk, the international financial system, and portfolio effects of capital budgets on international capital markets. Students explore current issues of concern to multinational firms such as environmental problems, organizing for optimal results, sources and uses of funds, and accounting, tax, and control issues.

Credits: 3

College: School of Business

Prerequisites: (IMBF 503 or IMBF 503 Waiver with a score of 1) and (IMBF 504 or IMBF 504 Waiver with a score of 1) and (IMBF 505 or IMBF 505 Waiver with a score of 1) and (IMBF 508 or IMBF 508 Waiver with a score of 1) and (IMBF 510 or IMBF 510 Waiver with a score of 1) [Min Grade: C]

Schedule Type: Lecture, On-Line

IMBA 714: New Product Development

This project-based, team oriented course provides a methodology for discovering and executing new business opportunities. Following a product design and development roadmap, students participate in innovation games and charrette exercises, identify customer needs, and generate product concepts. Weekly assignments focus on the business aspects and general design concepts of new product development. The course culminates in the creation of a prototyped concept and submission of a business plan. Prerequisite: MBA-6XX Marketing Concepts and MBA-6XX Business Model Development.

Credits: 3

College: School of Business

Prerequisites: IMBA 604 or IMBA 604 Waiver with a score of 1 [Min Grade: C]

Schedule Type: Lecture, On-Line

IMBA 720: Data Models & Management

This course introduces students to operational databases and analytical databases in business environments. Topics include entity-relationship modeling, unified modeling language, relational database, SQL, data warehouse modeling, data mart modeling, and DBMS functioning. Emphases are on the understanding of data requirements for solving business problems, conceptual design of data models, logical design of databases, key elements of database management, and the differences between operational databases and analytical databases. Graphical tools for database conceptual design and modern DBMS systems are used to support the learning process of the topics.

Credits: 3

College: School of Business

Schedule Type: Lecture

IMBA 721: Business Analytics Modeling

This course focuses on up-to-date frameworks for successful business analytics modeling, and will cover processes, methods, techniques, evaluation, and tools. It includes overviews of text and web mining, sentiment analysis, as well as Big Data. Business analytics modeling best practices to enable timely, actionable, evidence-based decision making will be explored. Students will acquire an understanding of concepts with tutorials, case studies (both successful and failures), as well as hands-on applications.

Credits: 3

College: School of Business

Schedule Type: By Appointment, Lecture

IMBA 722: Business Analytics Practicum

This practicum provides students with an opportunity to gain real world experience by working with industry partners. Each project is sponsored by a company, allowing students to work with partner companies to gain analytics experience and reconcile theory with business practice. Student groups are supervised by a faculty member and work with the practicum company to identify, define, scope and analyze a particular business problem. Following an initial identification of project scope and purpose, students typically engage in data acquisition, data cleansing and restructuring, exploratory data analysis, feature extraction, model development and evaluation, modeling fitting and testing, remodeling and retesting, final modeling and data fitting, as well as oral and written communication of results. The ultimate learning objective is to solve a real-life business problem, improving bottom-line, and achieving business goals.

Credits: 3**College:** School of Business**Schedule Type:** Lecture**IMBA 730: Innovative Leadership**

This course addresses the skills, concepts, and mind-set that support leadership in complex, innovative organizations. In the context of new business models and planning for uncertainty, topics include self-leadership, critiquing diverse models of leadership, creating vision and strategy, understanding people, managing change, ethical decision making, power and influence, motivation, facilitation of diverse teams, conflict resolution, and organizational culture.

Credits: 3**College:** School of Business**Schedule Type:** Lecture, On-Line**IMBA 731: Design Thinking in Business**

This course focuses on the intersection between design thinking and opportunity-finding for strategy development, covering theory and practice related to innovation, complexity, emergence, and systems thinking to develop strategies that drive organizational change and new value propositions. It begins with review of frameworks for strategy development and explores approaches to engage stakeholders in that development. Students use lifecycle analysis to redesign an existing organizational strategy and develop an actionable communication rollout plan.

Credits: 3**College:** School of Business**Schedule Type:** By Appointment - 1 student, Lecture, On-Line**IMBA 732: Design Research & Project**

This course covers all aspects of the entrepreneurial process, providing students with principles of design research for creating successful new ventures. This course addresses the entrepreneurial mindset, creativity and idea generation, assessing entrepreneurial opportunities, conducting feasibility studies and market research, developing marketing plans, financial preparation for new ventures, location and capacity planning, new venture team building, legal issues and risk analysis. The course focuses on the development of an effective business plan for a new venture.

Credits: 3**College:** School of Business**Schedule Type:** Lecture**IMBA 741: Financial Acct & Reporting I**

An in-depth study of current accounting issues and pronouncements, including long-term debt and troubled debt restructuring, accounting for leases, pension and post-retirement, income tax accounting, price-level adjusted financial statement reporting, and accounting for partnerships (equity, admission, profit and loss sharing, and liquidation).

Credits: 3**College:** School of Business**Schedule Type:** Lecture**IMBA 742: Financial Acct & Reporting II**

A continuation of Financial Accounting & Reporting I, including the study of accounting for business combinations (purchases and pooling of interests), accounting for the translation or remeasurement of foreign subsidiary financial statements into dollars to meet business combination reporting requirements, accounting for transactions denominated in a foreign currency (including purchases, sales, and hedges), and analysis of financial statements.

Credits: 3**College:** School of Business**Schedule Type:** Lecture**IMBA 743: Audit and Attestation**

A study of the development of financial compliance and operational auditing techniques, including analysis of current issues in the auditing profession such as audit risk, ethical conduct, materiality, audit sampling procedures, and reporting issues. These areas will be studied with reference to pronouncements of the accounting profession and current literature. The study of operational, as well as financial compliance auditing, will be enhanced using case studies and examples.

Credits: 4**College:** School of Business**Schedule Type:** Lecture**IMBA 759: Entrepreneurship**

This course will provide an overview of the major elements of entrepreneurial activity including planning and evaluation of the business, financing, typical operating and administrative issues and alternatives for growth and sale. Entrepreneurial opportunities and challenges will be examined and a variety of venture opportunities will be analyzed. The course will give students a realistic look at the challenges involved in starting a viable business and help students in a personal evaluation of their own skills, talents and career potential. Utilizing business planning software, each student will prepare a comprehensive business plan for a business opportunity the student selects and perceives to be viable and practical. The plan may be utilized for presentation to potential investors.

Credits: 3**College:** School of Business**Prerequisites:** (IMBF 503 or IMBF 503 Waiver with a score of 1) and (IMBF 504 or IMBF 504 Waiver with a score of 1) and (IMBF 505 or IMBF 505 Waiver with a score of 1) and (IMBF 508 or IMBF 508 Waiver with a score of 1) and (IMBF 510 or IMBF 510 Waiver with a score of 1) [Min Grade: C]**Schedule Type:** By Appointment - 1 student, Lecture, Lecture/On-Line, On-Line

IMBA 761: Promotion Management

This course focuses on the promotion and communication decisions of corporations and how to employ promotion strategy to solve marketing problems and enhance opportunities. Advertising, sales promotions, publicity, public relations and personal selling are investigated.

Credits: 3**College:** School of Business**Prerequisites:** IMBA 604 [Min Grade: C]**Schedule Type:** Lecture**IMBA 791B: Career Jumpstart Internship II****Credits:** 0**College:** School of Business**Schedule Type:** Internship 3 Credits, Internship .5 Credits, Internship 6 Credits**IMBA 791C: Career Jumpstart Internship III****Credits:** 0**College:** School of Business**Schedule Type:** Internship 3 Credits, Internship .5 Credits, Internship 6 Credits**IMBA 792: International Business Innovatn**

International Business Innovatn: The focus of this course is visiting representatives of U.S. and non-U.S. businesses in various industries abroad. The international business trip will span approximately two weeks. Students will meet with business executives, government officials, labor leaders and academicians in specific industries abroad. Students will gain an appreciation for both the formal business aspects and informal social aspects of conducting commerce in foreign countries. Registration requires permission of the Graduate Business Programs Office.

Credits: 3**College:** School of Business**Prerequisites:** (IMBF 503 or IMBF 503 Waiver with a score of 1) and (IMBF 504 or IMBF 504 Waiver with a score of 1) and (IMBF 505 or IMBF 505 Waiver with a score of 1) and (IMBF 508 or IMBF 508 Waiver with a score of 1) and (IMBF 510 or IMBF 510 Waiver with a score of 1) [Min Grade: C]**Schedule Type:** Lecture**IMBA 797: Selected Topics**

Selected Topics Content will vary in response to current issues.

Credits: 3**College:** School of Business**Schedule Type:** By Appointment - 1 student, By Appointment, Lecture, On-Line

Innovator MBA Online (IMBX)

IMBX 600: Management Concepts

This course introduces students to the theory and practice of managerial functions and decision-making models in traditional and more innovative organizations. Students are familiarized with the importance of organizational communications, including verbal and written communications and the criticality of using multiple communication channels. Students explore basic negotiation techniques and methods of conflict resolution.

Credits: 1.5**College:** School of Business**Prerequisites:** (IMBF 503 Waiver with a score of 1 or IMBF 503 or IMFX 503) and (IMBF 504 Waiver with a score of 1 or IMBF 504 or IMFX 504) and (IMBF 505 Waiver with a score of 1 or IMBF 505 or IMFX 505) and (IMBF 508 Waiver with a score of 1 or IMBF 508 or IMFX 508) and (IMBF 510 Waiver with a score of 1 or IMBF 510 or IMFX 510) [Min Grade: C]**Schedule Type:** On-Line**IMBX 601: Marketing Concepts**

This course provides students with a broad understanding of the various organizational marketing functions including the development, positioning, pricing, distribution, and promotion of products, services, and business ideas. Attention is focused on understanding of the basic marketing concepts including strategic planning, marketing mix, market segmentation, branding, consumer research, and marketing research and applying the knowledge to formulate marketing strategies for business opportunities.

Credits: 1.5**College:** School of Business**Prerequisites:** (IMBF 503 Waiver with a score of 1 or IMBF 503 or IMFX 503) and (IMBF 504 Waiver with a score of 1 or IMBF 504 or IMFX 504) and (IMBF 505 Waiver with a score of 1 or IMBF 505 or IMFX 505) and (IMBF 508 Waiver with a score of 1 or IMBF 508 or IMFX 508) and (IMBF 510 Waiver with a score of 1 or IMBF 510 or IMFX 510) [Min Grade: C]**Schedule Type:** On-Line**IMBX 602: Managn Innovative Peo & Teams**

Managing Innovative People and Teams This course addresses the skills and attitudes that support leadership in complex, innovative organizations under conditions of uncertainty and change. Students will explore the concept of self-leadership, managing change, ethical decision-making, power and influence, motivation, facilitation of diverse teams, conflict resolution, and organizational culture. The course begins with creative exercises in leadership style self-assessment and relates these results to leadership in new, innovative organizational structures.

Credits: 3**College:** School of Business**Prerequisites:** (IMBF 503 Waiver with a score of 1 or IMBF 503 or IMFX 503) and (IMBF 504 Waiver with a score of 1 or IMBF 504 or IMFX 504) and (IMBF 505 Waiver with a score of 1 or IMBF 505 or IMFX 505) and (IMBF 508 Waiver with a score of 1 or IMBF 508 or IMFX 508) and (IMBF 510 Waiver with a score of 1 or IMBF 510 or IMFX 510) [Min Grade: C]**Schedule Type:** On-Line

IMBX 604: Business Model Innovation

In this course students fully explore how an organization creates, delivers, and captures value through a customer-centric approach to business model innovation. The impact of industry disruption through business model innovation will be explored as students analyze and evaluate existing models. Using creative thinking and specific patterns, students will gain experience in planning and executing new models to address the complex challenges facing businesses from a variety of industries in the market place today.

Credits: 3**College:** School of Business**Prerequisites:** (IMBF 503 Waiver with a score of 1 or IMBF 503 or IMFX 503) and (IMBF 504 Waiver with a score of 1 or IMBF 504 or IMFX 504) and (IMBF 505 Waiver with a score of 1 or IMBF 505 or IMFX 505) and (IMBF 508 Waiver with a score of 1 or IMBF 508 or IMFX 508) and (IMBF 510 Waiver with a score of 1 or IMBF 510 or IMFX 510) [Min Grade: C]**Schedule Type:** On-Line**IMBX 625: Comm, Negotiatn, Creatv Economy**

This course covers the concepts and art of effective management communications and negotiations in the business environment. The total communications process verbal, nonverbal, presentation, written and electronic is reviewed in the context of today's work environment. The perspectives and needs of top management, interactive teams, individual contributors, and clients are examined and translated into professional practices. Experiential exercises and class discussions will build participants understanding of styles and skills in negotiating. Coursework will focus on the uses of power, influence, and negotiating styles, methods of conflict resolution and means of influencing others.

Credits: 3**College:** School of Business**Prerequisites:** (IMBF 503 Waiver with a score of 1 or IMBF 503 or IMFX 503) and (IMBF 504 Waiver with a score of 1 or IMBF 504 or IMFX 504) and (IMBF 505 Waiver with a score of 1 or IMBF 505 or IMFX 505) and (IMBF 508 Waiver with a score of 1 or IMBF 508 or IMFX 508) and (IMBF 510 Waiver with a score of 1 or IMBF 510 or IMFX 510) [Min Grade: C]**Schedule Type:** On-Line**IMBX 627: Competitive Tech Intelligence**

This course will focus on the latest technological advances for managing data and communications effectively. Students will acquire the skills and concepts necessary to use a system to handle data efficiently for large and small organizations, national or international in scope. Network technology and usage of computer networks, as well as ethical and security issues will also be addressed. The concepts of telecommunications and the costs and benefits associated with this transmission of information will be explored. Methods of instruction include hands-on/application orientation.

Credits: 3**College:** School of Business**Prerequisites:** (IMBF 503 Waiver with a score of 1 or IMBF 503 or IMFX 503) and (IMBF 504 Waiver with a score of 1 or IMBF 504 or IMFX 504) and (IMBF 505 Waiver with a score of 1 or IMBF 505 or IMFX 505) and (IMBF 508 Waiver with a score of 1 or IMBF 508 or IMFX 508) and (IMBF 510 Waiver with a score of 1 or IMBF 510 or IMFX 510) [Min Grade: C]**Schedule Type:** On-Line**IMBX 628: Accounting for Mgmt Decisions**

This course provides students previously exposed to financial and managerial accounting principles an opportunity to study the structure and use of accounting systems designed to aid management in controlling costs and profits. The course stresses the following: financial statement interpretation as a basis for decision making, cash flow analysis, cash budgeting, cost volume profit analysis, costing and interpretation of manufacturing systems and the impact of international competition, responsibility accounting and the impact of inflation.

Credits: 3**College:** School of Business**Prerequisites:** (IMBF 503 Waiver with a score of 1 or IMBF 503 or IMFX 503) and (IMBF 504 Waiver with a score of 1 or IMBF 504 or IMFX 504) and (IMBF 505 Waiver with a score of 1 or IMBF 505 or IMFX 505) and (IMBF 508 Waiver with a score of 1 or IMBF 508 or IMFX 508) and (IMBF 510 Waiver with a score of 1 or IMBF 510 or IMFX 510) [Min Grade: C]**Schedule Type:** On-Line**IMBX 629: Financial Policy and Planning**

This course focuses on the investment and financing decisions of firms. Topics include capital budgeting, cash management and cash flow analysis, capital structure, dividends and international operations. Financial policy making is considered within the context of contemporary valuation and risk management theories. Various financial planning models are analyzed in the course.

Credits: 3**College:** School of Business**Prerequisites:** (IMBF 503 Waiver with a score of 1 or IMBF 503 or IMFX 503) and (IMBF 504 Waiver with a score of 1 or IMBF 504 or IMFX 504) and (IMBF 505 Waiver with a score of 1 or IMBF 505 or IMFX 505) and (IMBF 508 Waiver with a score of 1 or IMBF 508 or IMFX 508) and (IMBF 510 Waiver with a score of 1 or IMBF 510 or IMFX 510) [Min Grade: C]**Schedule Type:** On-Line**IMBX 630: Operations Systems Perspectiv**

This course will focus on the mathematical models and methods available for use in formulating and analyzing business decision-making problems in industry. Areas of study include: probability theory, decision analysis, game theory, forecasting techniques, project management, queuing models, allocating scarce resources using linear programming and integer-programming techniques, and deterministic and probabilistic inventory models.

Credits: 3**College:** School of Business**Prerequisites:** (IMBF 503 Waiver with a score of 1 or IMBF 503 or IMFX 503) and (IMBF 504 Waiver with a score of 1 or IMBF 504 or IMFX 504) and (IMBF 505 Waiver with a score of 1 or IMBF 505 or IMFX 505) and (IMBF 508 Waiver with a score of 1 or IMBF 508 or IMFX 508) and (IMBF 510 Waiver with a score of 1 or IMBF 510 or IMFX 510) [Min Grade: C]**Schedule Type:** On-Line

IMBX 642: Strat Insight & Implementation

This course explores the strategic visioning, planning and implementation process, with a focus on global industries and the challenges faced by businesses in an increasingly dynamic environment. Students analyze strategic threats and opportunities that confront businesses across the globe in the 21st century.

Credits: 3**College:** School of Business

Prerequisites: (IMBF 503 Waiver with a score of 1 or IMBF 503 or IMFX 503) and (IMBF 504 Waiver with a score of 1 or IMBF 504 or IMFX 504) and (IMBF 505 Waiver with a score of 1 or IMBF 505 or IMFX 505) and (IMBF 508 Waiver with a score of 1 or IMBF 508 or IMFX 508) and (IMBF 510 Waiver with a score of 1 or IMBF 510 or IMFX 510) [Min Grade: C]

Schedule Type: By Appointment - 1 student, On-Line**IMBX 700: Intl. Economic and Finance**

This course explores interrelationships between economic growth/development theories and financial applications in global markets, emphasizing international financial management techniques and practices. Topics include international trade, balance of payments, foreign exchange markets and risk, the international financial system, and portfolio effects of capital budgets on international capital markets. Students explore current issues of concern to multinational firms such as environmental problems, organizing for optimal results, sources and uses of funds, and accounting, tax, and control issues.

Credits: 3**College:** School of Business

Prerequisites: (IMBF 503 Waiver with a score of 1 or IMBF 503 or IMFX 503) and (IMBF 504 Waiver with a score of 1 or IMBF 504 or IMFX 504) and (IMBF 505 Waiver with a score of 1 or IMBF 505 or IMFX 505) and (IMBF 508 Waiver with a score of 1 or IMBF 508 or IMFX 508) and (IMBF 510 Waiver with a score of 1 or IMBF 510 or IMFX 510) [Min Grade: C]

Schedule Type: On-Line**IMBX 714: New Product Development**

This project-based, team oriented course provides a methodology for discovering and executing new business opportunities. Following a product design and development roadmap, students participate in innovation games and charrette exercises, identify customer needs, and generate product concepts. Weekly assignments focus on the business aspects and general design concepts of new product development. The course culminates in the creation of a prototyped concept and submission of a business plan. Prerequisites: MBA-6XX Marketing Concepts and MBA-6XX Business Model Development.

Credits: 3**College:** School of Business

Prerequisites: IMBA 604 or IMBX 604 or IMBA 604 Waiver with a score of 1 [Min Grade: C]

Schedule Type: On-Line**IMBX 720: Data Models & Management**

This course introduces students to operational databases and analytical databases in business environments. Topics include entity-relationship modeling, unified modeling language, relational database, SQL, data warehouse modeling, data mart modeling, and DBMS functioning. Emphases are on the understanding of data requirements for solving business problems, conceptual design of data models, logical design of databases, key elements of database management, and the differences between operational databases and analytical databases. Graphical tools for database conceptual design and modern DBMS systems are used to support the learning process of the topics.

Credits: 3**College:** School of Business**Schedule Type:** On-Line**IMBX 721: Business Analytics Modeling**

This course focuses on up-to-date frameworks for successful business analytics modeling, and will cover processes, methods, techniques, evaluation, and tools. It includes overviews of text and web mining, sentiment analysis, as well as Big Data. Business analytics modeling best practices to enable timely, actionable, evidence-based decision making will be explored. Students will acquire an understanding of concepts with tutorials, case studies (both successful and failures), as well as hands-on applications.

Credits: 3**College:** School of Business**Schedule Type:** On-Line**IMBX 722: Business Analytics Practicum**

This practicum provides students with an opportunity to gain real world experience by working with industry partners. Each project is sponsored by a company, allowing students to work with partner companies to gain analytics experience and reconcile theory with business practice. Student groups are supervised by a faculty member and work with the practicum company to identify, define, scope and analyze a particular business problem. Following an initial identification of project scope and purpose, students typically engage in data acquisition, data cleansing and restructuring, exploratory data analysis, feature extraction, model development and evaluation, modeling fitting and testing, remodeling and retesting, final modeling and data fitting, as well as oral and written communication of results. The ultimate learning objective is to solve a real-life business problem, improving bottom-line, and achieving business goals.

Credits: 3**College:** School of Business**Schedule Type:** On-Line**IMBX 730: Innovative Leadership**

This course addresses the skills, concepts, and mind-set that support leadership in complex, innovative organizations. In the context of new business models and planning for uncertainty, topics include self-leadership, critiquing diverse models of leadership, creating vision and strategy, understanding people, managing change, ethical decision making, power and influence, motivation, facilitation of diverse teams, conflict resolution, and organizational culture.

Credits: 3**College:** School of Business**Schedule Type:** On-Line

IMBX 731: Design Thinking in Business

This course focuses on the intersection between design thinking and opportunity-finding for strategy development, covering theory and practice related to innovation, complexity, emergence, and systems thinking to develop strategies that drive organizational change and new value propositions. It begins with review of frameworks for strategy development and explores approaches to engage stakeholders in that development. Students use lifecycle analysis to redesign an existing organizational strategy and develop an actionable communication rollout plan.

Credits: 3

College: School of Business

Schedule Type: On-Line

IMBX 732: Design Research & Project

This course covers all aspects of the entrepreneurial process, providing students with principles of design research for creating successful new ventures. This course addresses the entrepreneurial mindset, creativity and idea generation, assessing entrepreneurial opportunities, conducting feasibility studies and market research, developing marketing plans, financial preparation for new ventures, location and capacity planning, new venture team building, legal issues and risk analysis. The course focuses on the development of an effective business plan for a new venture.

Credits: 3

College: School of Business

Schedule Type: On-Line

IMBX 741: Financial Acct & Reporting I

An in-depth study of current accounting issues and pronouncements, including long-term debt and troubled debt restructuring, accounting for leases, pension and post-retirement, income tax accounting, price-level adjusted financial statement reporting, and accounting for partnerships (equity, admission, profit and loss sharing, and liquidation).

Credits: 3

College: School of Business

Schedule Type: On-Line

IMBX 742: Financial Acct & Reporting II

A continuation of Financial Accounting & Reporting I, including the study of accounting for business combinations (purchases and pooling of interests), accounting for the translation or remeasurement of foreign subsidiary financial statements into dollars to meet business combination reporting requirements, accounting for transactions denominated in a foreign currency (including purchases, sales, and hedges), and analysis of financial statements.

Credits: 3

College: School of Business

Schedule Type: On-Line

IMBX 743: Audit and Attestation

A study of the development of financial compliance and operational auditing techniques, including analysis of current issues in the auditing profession such as audit risk, ethical conduct, materiality, audit sampling procedures, and reporting issues. These areas will be studied with reference to pronouncements of the accounting profession and current literature. The study of operational, as well as financial compliance auditing, will be enhanced using case studies and examples.

Credits: 4

College: School of Business

Schedule Type: On-Line

IMBX 759: Entrepreneurship

This course will provide an overview of the major elements of entrepreneurial activity including planning and evaluation of the business, financing, typical operating and administrative issues and alternatives for growth and sale. Entrepreneurial opportunities and challenges will be examined and a variety of venture opportunities will be analyzed. The course will give students a realistic look at the challenges involved in starting a viable business and help students in a personal evaluation of their own skills, talents and career potential. Utilizing business planning software, each student will prepare a comprehensive business plan for a business opportunity the student selects and perceives to be viable and practical. The plan may be utilized for presentation to potential investors.

Credits: 3

College: School of Business

Prerequisites: (IMBF 503 Waiver with a score of 1 or IMBF 503 or IMFX 503) and (IMBF 504 Waiver with a score of 1 or IMBF 504 or IMFX 504) and (IMBF 505 Waiver with a score of 1 or IMBF 505 or IMFX 505) and (IMBF 508 Waiver with a score of 1 or IMBF 508 or IMFX 508) and (IMBF 510 Waiver with a score of 1 or IMBF 510 or IMFX 510) [Min Grade: C]

Schedule Type: On-Line

IMBX 761: Promotion Management

This course focuses on the promotion and communication decisions of corporations and how to employ promotion strategy to solve marketing problems and enhance opportunities. Advertising, sales promotions, publicity, public relations and personal selling are investigated.

Credits: 3

College: School of Business

Prerequisites: IMBA 604 or IMBX 604 [Min Grade: C]

Schedule Type: On-Line

IMBX 762: Qualit & Quanti Mktg Research

This course gives students the qualitative and quantitative tools they need to find business opportunities and/or solve business problems. Students learn how to formulate the research problem, design the research, collect the data, and analyze the data. Various qualitative and quantitative research techniques will be examined and applied to identify opportunities, analyze data, and make strategic decision. Students will be required to conduct a research study using both qualitative and quantitative methods during the semester.

Credits: 3

College: School of Business

Schedule Type: On-Line

IMBX 772: Investment & Portfolio Mgmt

Investment and Portfolio Management This course will acquaint the student with the tools essential for sound money management. Investment management begins by considering the goals of an investor with respect to risk exposure, the tax environment, liquidity needs and appreciation versus income potentials. Strategies will be developed to satisfy these objectives. Special attention will be paid to the theories of determinants of asset prices, including the capital-asset pricing model.

Credits: 3

College: School of Business

Schedule Type: On-Line

IMBX 776: Speculative Markets

Speculative Markets This course is intended to introduce students to financial futures, options and swaps. The objective of this course is to clearly explain why these securities exist and how to accurately price them. The course will present a balance of the institutional details, theoretical foundations and practical applications of this field.

Credits: 3**College:** School of Business**Schedule Type:** On-Line**IMBX 777: Fixed Income Securities**

Fixed Income Securities This is a highly specialized course that focuses on the fixed income market with emphasis on the bond market.

Topics include pricing of bonds, bond price volatility, types of fixed income securities, term structure of interest rates and bond portfolio-management strategies. Various fixed income products are analyzed in the course, including some derivative products in the context of fixed-income securities.

Credits: 3**College:** School of Business**Schedule Type:** On-Line**IMBX 792: Internation Business Innovatn**

International Business Innovatn: The focus of this course is visiting representatives of U.S. and non-U.S. businesses in various industries abroad. The international business trip will span approximately two weeks. Students will meet with business executives, government officials, labor leaders and academicians in specific industries abroad. Students will gain an appreciation for both the formal business aspects and informal social aspects of conducting commerce in foreign countries. Registration requires permission of the Graduate Business Programs Office.

Credits: 3**College:** School of Business

Prerequisites: (IMBF 503 Waiver with a score of 1 or IMBF 503 or IMFX 503) and (IMBF 504 Waiver with a score of 1 or IMBF 504 or IMFX 504) and (IMBF 505 Waiver with a score of 1 or IMBF 505 or IMFX 505) and (IMBF 508 Waiver with a score of 1 or IMBF 508 or IMFX 508) and (IMBF 510 Waiver with a score of 1 or IMBF 510 or IMFX 510) [Min Grade: C]

Schedule Type: On-Line

Integrative Health Education (IHE)

IHE 600: Foundations in Int Health Educ**Credits:** 3**College:** Institute for Emerging Health Professions**Schedule Type:** On-Line**IHE 610: Int Dvlp Model Well & Ldrshp****Credits:** 3**College:** Institute for Emerging Health Professions**Schedule Type:** On-Line**IHE 620: Integrative Hlth Edu Practicum****Credits:** 3**College:** Institute for Emerging Health Professions**Schedule Type:** On-Line**IHE 700: Integrative Health MS Capstone****Credits:** 3**College:** Institute for Emerging Health Professions**Schedule Type:** On-Line

Integrative Nutrition (IN)

IN 500: Foundations in Intgr Nutrition**Credits:** 3**College:** Institute for Emerging Health Professions**Schedule Type:** On-Line**IN 510: Func Genmc, Protmc, Metabolcs****Credits:** 3**College:** Institute for Emerging Health Professions**Schedule Type:** On-Line**IN 520: Adv Conc in Integrative Nutr****Credits:** 3**College:** Institute for Emerging Health Professions**Schedule Type:** On-Line

Interactive Digital Design (IDD)

IDD 510: Essentials of Interactive Des

This course will give students a foundation in the three core disciplines of interactive design: quality design skills, software competency and programming knowledge. Additionally, proper research and presentation practices will be reinforced to provide students with a structured methodology vital to their program and career success. The outcome is a well-produced and portfolio quality website with supporting documentation that demonstrates comprehension of industry-standard knowledge.

Credits: 6**College:** School of Design & Engineering**Schedule Type:** Studio**IDD 600: Virtual Reality Design**

This studio course focuses on exploring virtual reality including an understanding of virtual environments, how users interact within a virtual space, and how VR can be explored to create new & innovative user experiences. Two major components of the class are contemporary practical examples and tutorials with new and emerging technologies. Student projects will provide a space for a hands on learning experience. Graduate students are expected to research and conceptualize implementations of VR for future impact on digital media.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** On-Line, Studio**IDD 601: Cognitive Psych for Design**

This course introduces students to core cognitive psychological concepts that drive strong interface design, and the subsequent user research practices that uncover the operation of these concepts. Students will analyze examples of designs (either in their portfolio or in the marketplace) to see these concepts at work, and present these examples each week in a casual setting. Students will also be exposed to different methods of inquiry and analysis, so that they understand how each method draws out explicit and implicit assumptions (i.e., the methodology).

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture, Studio

IDD 621N: Digital Experience Design

Digital Experience Design develop the student's ability to synthesize 2D, 3D and 4D conceptions of space with knowledge and skills of interactivity to create and produce the digital experience. This studio will solidify and expand the student's vocabulary and ability to innovate within the digital context. Students will complete a project that explores spatial, emotional, informational and communicative issues. The project should reflect a high degree of conceptual, aesthetic and technical mastery for successful completion of this course.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Studio**IDD 625: Advanced Web Design & Strategy****Credits:** 3**College:** School of Design & Engineering**Schedule Type:** Lecture, Studio**IDD 628: 3-D Modeling****Credits:** 3**College:** School of Design & Engineering**Schedule Type:** Lecture, Studio**IDD 631N: Digital Innovation Design**

Digital Innovation Design This second in a sequence of three studios focuses on the ability of individual designers to pursue innovation. This course is comprised of several projects which highlight the role that digital designers play in the multi-disciplinary attempt to bridge the gap between functionality and usability. Students will address current interface design issues through a series of screen-based projects, each ranging in complexity and theme, and placing particular emphasis on the visual and semantic aspects of design solutions. Students will be expected to seek new ways to navigate through 4D environments, challenging common interface paradigms. They are encouraged to build 4D spaces that are expressive, dynamic and experiential, while retaining their intuitive usefulness.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Studio**IDD 632: Database Mgmt & Scripting**

Database Management and Scripting Using PHP, students will learn fundamental server-side scripting concepts like creating arrays and functions, automating Unix commands, gathering and processing user input, and dynamically writing out HTML and JavaScript. Relational Database concepts are covered and students will learn to conceptually model data and to create, query, and manage their database using SQL. The course will culminate with the students, for their final project, creating a web application that ties HTML front-end to a MySQL database using PHP.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture**IDD 635: Interactive Narrative/Drama**

Since the beginning of time, storytelling has been used as a universal practice that has proven to be a powerful tool of communication for fostering understanding, social inquiry, and self-expression. Interactive narrative is an emerging interdisciplinary genre which uses interactivity, hypertext, video and film, sound, drama, videogames, literary fiction, multi-user spaces, interactive installations, live performance, and artificial intelligence to tell a story. This course will explore theoretical perspectives on both interactivity and narrative structure and provide an overview of the forms, strategies, and conventions of each while emphasizing approaches on how to integrate the two.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** By Appointment - 1 student, Lecture**IDD 637: Mobile Communication Design**

As a society, our ability to communicate from anywhere on the globe has become increasingly more important. Designers today are faced with new challenges, paradigms, and habits that have been adopted due to mobile communications. Designing strictly for the desktop only is a thing of the past. In this class, students will explore a strategic process of how to design for today's multiscreen environment with a focus on mobile platforms. We will be designing interactions that happen literally within the palm of our hands and crafting unique, cutting edge user experiences for users of mobile devices. Design and development will be taught as an overall curriculum. At the end of the course, students will have an understanding of how to plan, design, develop, and market potential mobile applications.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** By Appointment - 1 student, Lecture, Lecture/Studio Combination, Studio**IDD 700: Information Architecture**

This course focused on a UX designer's role in system development, specifically information architecture (IA). Students will develop, document, and present user-centered IA recommendations to create more usable products & services.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture**IDD 797: Special Topics:**

Generic Special Topics Description - An upper-level course designed to take advantage of resident/adjunct/visiting faculty members' expertise or a special focus wanted by the School for one or two terms. These courses might provide an in-depth treatment of recent advances in subjects of current interest in a given field whose subject matter is not necessarily needed to be offered long term. A specific "topic" may be delivered a maximum of two term. Prerequisites: Announced prior to registration

Credits: 3**College:** School of Design & Engineering**Schedule Type:** By Appointment - 1 student, Lecture

IDD 798: Independent Study

Independent Study & Research This course will allow students to pursue individual areas of interest while working jointly with a faculty member. Enrollment is subject to the availability and approval of both the program director and faculty member. The student must have 18 or more graduate-level credits, and a prospectus of the proposed independent study must be approved at least one month prior to registration. See appropriate form online at registrar's webpage.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** By Appointment - 1 student, Independent Study

Interdepartmental (MD) (IDPT)

IDPT 510: Library Research Meth**Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture**IDPT 511: Basic Cell/Mol Immunol****Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture**IDPT 520: Issues in Physiology****Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture**IDPT 522: Marketing Health Care****Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture**IDPT 530: Neurosciences****Credits:** 8**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture/Lab**IDPT 540: New Ventures-Entre Appr****Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture**IDPT 610: Intro to Data Handling****Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture**IDPT 620: Membrane Lipid Metabol****Credits:** 2**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture**IDPT 622: Radiobio-Human Cancer****Credits:** 4**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture**IDPT 623: Intro-Radiation Biology****Credits:** 2**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture**IDPT 660: Regul Issues-SciResearch****Credits:** 2**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture**IDPT 699: Independent Study****Credits:** 1-6**College:** Jefferson College of Life Sciences**Schedule Type:** Reseach

Interdisciplinary (IDSC)

IDSC 568: Overview of Acct/Fin**Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture

Interior Architecture (IARC)

IARC 601: Design 3 for Interior Arch

Building on skills and knowledge introduced in Design I and Design II, this studio focuses on the process of designing multi-space facilities. Through structured, medium scale design projects, students engage in the conceptual, theoretical, functional, and aesthetic issues, integrating research and evidenced based decision making with the intuitive nature of the design process. Emphasis is placed on the fundamental processes related to the development of a complete interior, from research, programming and space planning, to the selection and arrangement of appropriate furnishings and finishes. Students will also explore the influence of behavioral, socio-economic, and cultural factors on the functional and aesthetic quality of the built environment, and will communicate their designs by applying a range of professional presentation techniques.

Credits: 4**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Studio**IARC 602: Design 4 for Interior Arch**

This studio emphasizes the resolution of complex design issues in the context of health care interiors. In determining a design strategy, students research, develop and analyze the problem, relevant environment and behavioral factors, and then proceed with a completed design. Holistic development of concept, current sustainable design solutions, large-scale space planning, materials, construction details, lighting design, building systems, building codes, handicapped accessibility and furnishings are emphasized in the completed work.

Credits: 4**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Studio**IARC 603: Hist of Design 2 for Int Arch**

This course is an overview of the history of interior architecture and design, furniture, and the decorative arts. Lectures, readings, assignments and field trips, cover the development of period styles, major movements, and theoretical concepts of design as they relate to the complete interior. In depth discussions and site visits will focus on critical analysis and developing awareness of historical precedents.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Lecture

IARC 604: Vis 4: Constuction Documentation

This Revit-based advanced digital imaging course focuses on the advantages of building modeling software (BIM) and related documentation techniques for integrated practice and collaboration. Students will build their knowledge of professional interior construction and specification documentation, produce a set of construction drawings for an interiors project, and explore other uses for this powerful and important type of program.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: Hybrid, Lab, Lecture, Lecture/Lab, On-Line

IARC 607: Interior Building Technology

This course provides an overview of basic structural principles and systems and an in-depth study of non-structural interior construction and finish materials. Lectures and assignments address how the planning of interior space is impacted by the nature of various structural systems, and examine the visual and physical properties, application, and maintenance requirements of interior materials. In addition students are introduced to interior detailing in relation to architectural woodwork, millwork, partitions, floors, ceilings, stairs, custom cabinetry, furniture and specialty elements. The influence of sustainability and building codes on the choice of materials is also covered.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: Lab, Lecture, Lecture/Lab

IARC 608: Light and Color

This second course in the Interior Architecture technology sequence introduces students to the art and science of interior illumination, energy usage, and various control systems including power, security, communications, and life-safety. Both artificial illumination and day lighting are covered with an emphasis on the architectural aspects of lighting design. Though lectures, demonstrations, and assignments, student explore various lighting design strategies, the effects of light on color, and how effective lighting can contribute to the goal of creating a sustainable interior.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: Lab, Lecture

IARC 610: Text & Materials for Interiors

This course focuses on the art and science of textiles, and other non-textile based wall coverings in the creation of safe, sustainable, and aesthetically pleasing commercial and residential interiors. Key topics include the history of textile design and manufacture, man-made and synthetic fibers, methods of construction, weaving, dying, and printing, and inherent performance characteristics. Lectures and assignments cover textile finishing and testing, as well as relevant codes, regulations and standards. Students also learn about the appropriate selection, specification, and procurement of materials and finished goods such as carpeting, upholstery, wall coverings, and window treatments and their correct installation and maintenance requirements.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: Lecture

IARC 612: Adv Visualization: Interiors

This computer-aided design course teaches advanced three-dimensional modeling, rendering, and some animation techniques with a focus on interior environments. Emphasis is placed on the accurate and realistic representation of interior space, form, materials, furniture, color, and lighting. Students will also learn to present their designs by creating virtual walkthroughs. This will increase the effectiveness of student representations and presentations of their designs. Students complete a series of specifically designed exercises and projects of increasing difficulty leading to a final project. of the student's choosing from a concurrent or earlier design studio.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: Lecture, Lecture/Studio Combination, Studio

IARC 614: Furniture Design

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: Lecture, Studio

IARC 616: Environments for Well-Being

This course provides an introduction to a range of viewpoints, concepts, and characteristics of human behavior in existing designed spaces. Cultural, social, and psychological factors are examined, e.g., relationships to water, responses to open and enclosed spaces (both interior and exterior), roles of textures and aromas, relationships to the natural environment, etc. Various theories and methods of environmental assessment and design are studied that are based on an understanding of mutually supportive relationships between people and their physical environment. This course looks at how people use and are impacted by various environments and stimuli from a range of cultural, psychological and physical perspectives.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: Lecture

IARC 701: Design - Study Away

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: Studio

IARC 702: Design 5 for Interior Arch.

This advanced studio emphasizes the resolution of complex interior design issues in the context of interdisciplinary collaboration. In determining a design strategy, students research, develop and analyze the problem, relevant environment and behavioral factors, and then proceed with a completed design. Holistic development of concept, current sustainable design solutions, large-scale space planning, materials, construction details, lighting design, building systems, building codes, handicapped accessibility and furnishings are emphasized in the completed work.

Credits: 4

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: Studio

IARC 703: Theory for Design- Study Away

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: Lecture

IARC 707: Interior Building Systems

This final course in the technology sequence focuses on the study of a broad range of mechanical, plumbing, HVAC, and other building systems and their integration with interior construction. Students are be introduced to the issues of acoustical control, indoor air quality, and life safety in building interiors and the critical role that interior building systems and materials play in the establishment of human comfort and the protection of the health, safety and welfare of building occupants.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Lab, Lecture, Lecture/Lab**IARC 708: Professional Practice/Ethics**

Students in this course learn about the managerial, financial, legal, and ethical aspects of professional practice, including types of business formations, marketing, contracts, industry relationships, and project management. Lectures and assignments cover the range of specialized services performed by design firms, and the role and responsibilities of the designer in different positions and at various stages of their career. The importance of lifelong learning, professional development, and the value and role of professional associations is also discussed.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Lecture**IARC 709: Research and Programming**

This course provides the foundation for the Master's Project for Interior Architecture course in the following semester, and covers standard and emerging methods of research and programming in the field of interior design and architecture. In consultation with faculty, students will select a project type and site, and produce in-depth research, precedent studies, programming and analysis, embracing relevant issues such as cultural, sociological, political, economic, environmental, anthropometric, human factors, life safety, and construction methods and technologies, amongst others. Students are expected to organize and synthesize this information and document their research in both written and graphic form. This information along with architectural documentation and analysis of the selected site is presented to a group of jurors with expertise in the area of research and/or project type.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Prerequisites:** IARC 602 [Min Grade: C]**Schedule Type:** Lecture, Lecture/Studio Combination, Studio**IARC 710: Masters Proj for Interior Arch**

Building on the semester of research and programming (IARC-709), the Master's Project in Interior Architecture challenges students to integrate knowledge and skills acquired throughout the curriculum and can be undertaken only after successful completion of appropriate coursework. While most students will complete this course using an applied project based approach, students have an option of pursuing theoretical research. Thesis/Applied: This major culminating design experience is a self-directed, faculty monitored independent study appropriate for students interested in exploring the creative/design dimensions of Interior Architecture while exploring a significant and advanced question in the discipline. Students select one project from a range of carefully screened design projects of appropriate and comparable scope, sophistication, and complexity. Thesis/Theoretical: The thesis option is a self-directed, faculty monitored independent study appropriate for students interested in exploring theoretical dimension(s) in Interior Architecture. The thesis option will be attractive to students interested in pursuing doctoral studies and/or academic careers.

Credits: 4**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Hybrid, Studio**IARC 797: Special Topics for IA**

This course provides an opportunity to explore topics in interior architecture not developed in other courses. Examples include advanced visualization techniques, human behavior studies, specialized history/theory topics, furniture design, ergonomics, environmental psychology, and more. Students may take this course more than once as the topics differ each time it is offered. Prerequisite: IARC-601 (with approval by director) or IARC-604

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** By Appointment, Lecture, Lecture/Lab**IARC 798: Independent Study**

This course will allow students to pursue individual areas of interest while working closely with a faculty member. For further details, see the general description of Independent Study in the "University Academic Policies and Procedures" section of the academic catalog. See appropriate form online at the University Registrar's web page for more information. Prerequisite: Completed second year of program. Enrollment dependent on availability of faculty mentor and permission of program director.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Independent Study

Interior Architecture Prep (IARP)

IARP 501: Design 1 for Interior Arch

This introductory studio course is for graduate design majors within CABE. It introduces fundamental design principles and vocabulary, theory, process methodologies, problem-solving strategies, and craft with abstraction as a primary building block. Emphasis is placed on the relationship between production (the process of creating) and expression (the conveying of ideas and meaning) in design. Students will analyze and synthesize multiple contextual elements that impact design solutions.

Credits: 4**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Studio

IARP 502: Design 2 for Interior Arch

Through a series of projects of increasing size and complexity, students explore conceptual, theoretical, functional, and aesthetic frameworks for developing a design language to define spatial environments. Place making, behavioral factors, and socio-cultural and environmental influence are studied. The experiential and intuitive nature of the design process is investigated, as is the contributing role of form, scale, tectonics, materials, dynamic systems, and light/color.

Credits: 4**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Studio**IARP 503: Visualization 1**

This course covers the fundamentals of architectural graphic representation for exploration, presentation and documentation. Topics include freehand sketching, 2D orthographic drawings, para-line projections, site surveying and digital and analog modeling/fabrication. In addition, students learn how to enhance their drawings through the use of basic rendering techniques.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Lab, Lecture, Lecture/Lab**IARP 504: Visual Communication I**

Emphasizing the presentation of spatial environments at many scales, students will refine and expand their drawing and model-building skills using a wide range of media, and integrating manual and digital techniques. This course also addresses the interrelationship of the visual and verbal components of making an effective presentation. Building on skills and tools used in Vis 1, software and tools will be expanded to include generative modeling, digital fabrication, and evolving technologies.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Lab, Lecture**IARP 505: Hist of Arch + Design 1**

This lecture course surveys Western and non-Western architecture and interiors, beginning with ancient history and extending to the 19th century. Throughout the course, students acquire a working vocabulary for both analyzing and evaluating the built environment, and relating developments in the built environment to other disciplines such as the arts, furniture, and material culture. Architectural works are placed within a broad historical context by considering factors such as religion, philosophy, political and economic developments, as well as materials, construction methods, and local environments.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Lecture**IARP 508: Visualization 3 for I.A.****Credits:** 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Hybrid, Lecture, Studio

Interprofessional Education (IPE)

IPE 756: Interprof Healthcare Education**Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture, On-Line**IPE 765: Interprofessional Geriatric Ed****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture, On-Line**IPE 766: IPE Topics Geriatric Hlth Prac****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture, On-Line**IPE 767: Mentored IPE Geri Hlth Project****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture, On-Line

Jefferson Interprof. Education (CIPE)

CIPE 600: Interprofessional Hotspotting**Credits:** 0**College:** Jefferson Ctr for Interprof Ed**Schedule Type:** Independent Study, Seminar

JeffMD(JMD)

Laboratory Sciences (LS)

LS 501: Molecular Biology**Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, On-Line**LS 504: Biochemistry****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Exam, Lecture, On-Line, Seminar**LS 510: Intro to Molecular Diagnostics**

Course focuses on the techniques, procedures and protocols, as well as the fundamental concepts, of assays used in the clinical molecular laboratory. These assays analyze DNA and RNA isolated from human specimens in order to diagnose human disease. Topics covered include DNA extraction, polymerase chain reaction (PCR), electrophoresis, DNA sequencing, DNA fingerprinting, and other assays for detection of unique DNA or RNA sequences. Laboratory sessions cover contemporary procedures for diagnostic testing including DNA isolation, real-time quantitative PCR, DNA fingerprinting, and electrophoresis.

Credits: 2**College:** Jefferson College of Health Professions**Schedule Type:** Lab, Lecture, Lecture/Lab**LS 511: Functional Histology****Credits:** 2.5**College:** Jefferson College of Health Professions**Schedule Type:** Lab, Lecture, Lecture/Lab, On-Line

LS 531: Immunology

Examines basic principles and mechanisms of the immune system in the physiologic condition and in disease. Immune mechanisms in infections, hypersensitivity reactions, autoimmunity, immunodeficiencies, as well as tumor and transplantation immunology are discussed. Lecture and laboratory.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Lab, Lecture, Lecture/Lab, Lab/Lecture/Online, On-Line**LS 540: Current Resrch in Biosciences**

Examination and critical review of the literature pertaining to the bioscience disciplines of biotechnology, cytotechnology and medical technology. Students present research articles from contemporary literature for critical discussion. Students submit a written synopsis of two presented articles and one webinar of their choice. Graduate students, in addition, select a novel lab test or lab equipment found in the literature and produce a comprehensive proposal request suitable for publication.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Seminar**LS 575: MLS Seminar****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Seminar**LS 603: Research Design**

Emphasis is placed on the acquisition of methods and techniques for extending the scientific base of knowledge for laboratory practice. Research studies which address questions of impact on laboratory science and which are drawn from an interdisciplinary health perspective, serve as the focus for discussion. Research designs and related statistical processes are examined in terms of their appropriateness for addressing various laboratory practice problems. (Cross-listed with NU 603, OT 603, PT 603)

Credits: 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, On-Line**LS 610: Reg & Fis Issues in Lab. Mgmt****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Exam, Lecture, Lecture/On-Line, On-Line**LS 613: Pathology****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Lecture/On-Line**LS 620: Labatory Info Systems Mgmt****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**LS 626: Flow Cytometry I****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lab, Lecture, Lecture/Lab**LS 627: Flow Cytometry II****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lab, Lecture, Lecture/Lab**LS 630: Lab. Services Research Tech.****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**LS 640: Methods in Bioscience Edu****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Lecture/On-Line, On-Line**LS 644: Laboratory Ed and Instruction**

Completion of teaching and learning experience(s) in classroom, on-line and/or laboratory practice settings. Students acquire and demonstrate fundamental knowledge and practical skills in education administration, delivery and evaluation.

Credits: 3-4**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Seminar**LS 645: Lab Admin and Mgmt****Credits:** 3-4**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Practicum, Seminar**LS 650: Lead,Manage,Develop People****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, On-Line, Seminar**LS 651: Managing Medical Device Develo****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, On-Line**LS 652: Fin & Acc Aspects of MPD****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Lecture/Lab, On-Line**LS 653: Reg Requirements for MPD****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Lecture/Lab, On-Line**LS 654: Statistics&Informatics in MPD****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Lecture, On-Line, Seminar**LS 655: LeadMedProdDev: Prod&Bus Strat****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Lecture, On-Line, Seminar**LS 698: Special Topics in Lab Instruct****Credits:** 3-4**College:** Jefferson College of Health Professions**Schedule Type:** Lab, Lecture, On-Line, Seminar**LS 699: Independent Study**

This course will provide students with research exploration of a specific topic of interest to the individual student under the advisement of an instructor who will monitor and critique the student's progress

Credits: 1-6**College:** Jefferson College of Health Professions**Schedule Type:** Independent Study, Lab

LS 801: Research Project I**Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Reseach**LS 802: Reseach Project II****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Reseach**LS 803: Contemporary Topics Research**

This course aims to provide a solid foundation in conducting quality literature-based research at the graduate level in the fields of Medical Laboratory Science, Cytotechnology and Biotechnology. Emphasis will be placed on how to locate and make the best use of relevant sources, development of an appreciation of scientific inquiry and development of skills needed for the creation of appropriate academic outputs (journal quality review articles and research presentations).

Credits: 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Lecture/On-Line, On-Line**LS 804: Experimental Research I****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Reseach**LS 805: Experimental Research II****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Lab, Lecture, Reseach**LS 812: Practicum I****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Practicum**LS 813: Practicum II****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Practicum**LS 814: Practicum III****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Practicum**LS 815: Practicum IV****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Practicum**LS 816: Comprehensive Examination****Credits:** 0**College:** Jefferson College of Health Professions**Schedule Type:** Exam, Lecture, On-Line

Leadership (LDSP)

LDSP 510: Team Dynamics and Collaboratio

Teamwork and collaboration are skills necessary to lead in a high performance global workplace. This course will focus on team dynamics, roles and behaviors, communication, integrity and conflict resolution within teams. Students will learn how to build effective team members that provide team-based solutions and to use conflict to spark new ideas and creative thinking.

Credits: 3**College:** School of Business**Schedule Type:** Lecture, On-Line**LDSP 515: Org. Innovation, Creat & Chnge**

Change Management is the discipline that guides how we prepare, equip and support individuals to adopt change in order to drive organizational success and outcomes. Innovation involves large-scale and highly complex organizational change through creative leadership. This course teaches students how to work across boundaries, and to plan and execute change.

Credits: 3**College:** School of Business**Schedule Type:** Lecture, On-Line**LDSP 520: Strat. Ldrshp in a VUCA World**

Leaders are in the midst of a VUCA world – volatility, uncertainty, complexity, and ambiguity. This course will focus on leadership strategies necessary to manage these challenges. Students will learn the integrated application of strategy and leadership, establishing as the capacity to anticipate, challenge, interpret, decide, align and learn in order to lead a successful and effective organization.

Credits: 3**College:** School of Business**Schedule Type:** Lecture, On-Line**LDSP 525: Leading in Culturally Diverse**

Cultural awareness is part of the skill set that enables leaders to address challenges multinational organizations face every day. Success in today's global economy requires executives to lead cross-cultural teams comprised of individuals with different working styles, personalities, and perspectives. This course focuses on the importance of communication, and global and cultural awareness within organizations.

Credits: 3**College:** School of Business**Schedule Type:** Lecture, On-Line**LDSP 580: HR & Employee Development**

This course is key to organizational knowledge and focuses on the leader's ability to understand and know how to use human resources measures to make informed decisions that influence a leaders' strategy and positively affect the organizations' performance. Employee development is a set of integrated organizational processes designed to attract, develop, motivate, and retain productive, engaged employees.

Credits: 3**College:** School of Business**Schedule Type:** Lecture, On-Line

LDSP 590: Organizational Awareness

This course gives students the ability to learn and understand the organization's structure through decision-makers, power relationships, influencers, and networks. Leaders need to understand the forces at work in an organization as well as the guiding values and unspoken rules that operate among people. Organizational analysis will help guide strategy to accomplish goals in any organization or network, no matter the setting.

Credits: 3**College:** School of Business**Schedule Type:** Lecture, On-Line**LDSP 605: Leading in the Digital Age**

Digital technology is redefining the way organizations do business and engage consumers. Students will learn how to strategize through utilizing frameworks for mastering digital leadership and transforming organizations. Students will explore the latest technologies and learn how to leverage digital, social, and mobile marketing tools to drive innovation and spur growth.

Credits: 3**College:** School of Business**Schedule Type:** Lecture, On-Line**LDSP 610: Organizational Performance Met**

This course teaches students how to understand an organization or department's performance through various metrics. Students will learn how to read and analyze the following metrics to improve performance: financial, customer, process, people, performance measurement, marketing, and Key Performance Indicators (KPIs).

Credits: 3**College:** School of Business**Schedule Type:** Lecture, On-Line**LDSP 620: Global Leadership**

This course develops students' global mindset by understanding the global environment in which international organizations operate in addition to the role and behavior of international organizations as they respond to the environment. The organizational leader will have knowledge of local markets' culture and customs, develop multinational strategies, collaborate and influence, and manage globally diverse teams.

Credits: 3**College:** School of Business**Schedule Type:** Lecture, On-Line**LDSP 625: Organizational Consulting I**

This consulting foundations course builds the knowledge necessary for success in the role of consultant. The student will learn various techniques in the areas of strategy formulation, market research, operations, performance management and project management. Skills will be gained in contracting, collecting, analyzing, and presenting data.

Credits: 3**College:** School of Business**Schedule Type:** Lecture, On-Line**LDSP 630: Systems & Design Thinking**

This course will assist leaders in viewing an organization holistically, and the ability to examine and connect linking parts. Students will have the ability to understand and tackle complexity and produce significant results to guide organizational effectiveness and change. A structured approach will emphasize examining systems and problems more completely and accurately before developing and implementing solutions.

Credits: 3**College:** School of Business**Schedule Type:** Lecture, On-Line**LDSP 640: Conflict & Negotiation in Orgs**

Students will understand and discover the importance of conflict analysis as central to the context and content of any conflict. Conflict analysis tools will be applied to various case studies. This course examines both theoretical and practical implications of diverse assumptions and strategies. Students develop a deeper self-awareness of their role in the creation, perpetuation, escalation and resolution of conflicts through negotiation.

Credits: 3**College:** School of Business**Schedule Type:** Lecture, On-Line**LDSP 699: Capstone**

This course offers students an opportunity to increase their impact and effectiveness as a leader. Students will use their culmination of knowledge learned throughout the program and base their paper on one of the following: research, applied or externally-oriented projects. Details for the capstone are provided in the Capstone Handbook.

Credits: 3**College:** School of Business**Schedule Type:** Lecture, On-Line

Management (MGMT)

MGMT 543: Organization Develop**Credits:** 3**College:** School of Business**Schedule Type:** Lecture**MGMT 566: Managing People****Credits:** 3**College:** School of Business**Schedule Type:** Lecture**MGMT 643: Organ Development****Credits:** 3**College:** School of Business**Schedule Type:** Lecture**MGMT 666: Managing People****Credits:** 3**College:** School of Business**Schedule Type:** Lecture

Medical Lab Science (Online) (MLSO)

MLSO 504: Biochemistry**Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture/On-Line, On-Line

MLSO 510: Intro to Molecular Diagnostics

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: Lecture/On-Line, On-Line

MLSO 512: Clinical Microbiology I

Study the biology of clinically significant bacteria. Emphasizes pathophysiology and diagnostic procedures and tests used for their detection and identification. Topics of learning include, but not limited to, epidemiology, signs and symptoms of disease, mechanisms of infection and treatment. Contemporary laboratory methodologies used to examine, process and analyze clinical specimens are also discussed.

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture/On-Line, On-Line

MLSO 513: Clinical Microbiology II

Continuation of Clinical Microbiology I. Study the biology of clinically significant bacteria such as, but not limited to, obligate anaerobes, partially acid fast bacilli and mycobacteria. Parasitology, mycology and virology will also be studied. Emphasizes pathophysiology and diagnostic procedures and tests used for their detection and identification. Topics of learning include, but not limited to, epidemiology, signs and symptoms of disease, mechanisms of infection and treatment. Contemporary laboratory methodologies used to examine, process and analyze clinical specimens are also discussed.

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture/On-Line, On-Line

MLSO 523: Clinical Chemistry I

Study of the significance of chemical analytes indicative of human health and disease. Topics of learning include, but not limited to, analytical methodologies, operating principles, and utilization of biochemical laboratory instrumentation, equipment and analyzers for analyte determinations; clinical and research. Chemical analytes that will be discussed throughout the duration of this course include, but not limited to, carbohydrates, electrolytes, proteins, enzymes, non-protein nitrogen compounds, lipids and blood gases. Quality control and preventative maintenance methods are also discussed.

Credits: 2.5

College: Jefferson College of Health Professions

Schedule Type: Lecture/On-Line, On-Line

MLSO 524: Clinical Chemistry II

Continuation of Clinical Chemistry I. Topics of learning include, but not limited to, analytical methodologies, operating principles, and utilization of biochemical laboratory instrumentation, equipment and analyzers for analyte determinations; clinical and research. Emphasis on the study of organ function, endocrinology, heme derivatives, nutrition assessment, toxicology, therapeutic drug monitoring, tumor markers, specialized care and special chemistry and problem solving in the clinical chemistry laboratory.

Credits: 2.5

College: Jefferson College of Health Professions

Schedule Type: Lecture/On-Line, On-Line

MLSO 531: Immunology

Examines basic principles and mechanisms of the immune system in the physiologic condition and in disease. Immune mechanisms in infections, hypersensitivity reactions, autoimmunity, immunodeficiencies, as well as tumor and transplantation immunology are discussed. Lecture. This is an online course.

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture/On-Line, On-Line

MLSO 541: Clinical Hematology I

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture/On-Line, On-Line

MLSO 543: Clinical Hematology II

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture/On-Line, On-Line

MLSO 551: Immunohematology I

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture/On-Line, On-Line

MLSO 552: Immunohematology II

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture/On-Line, On-Line

MLSO 577: Laboratory Inform Fundamentals

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture/On-Line, On-Line

MLSO 578: Infection Prevention & Control

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture/On-Line, On-Line

MLSO 603: Human Genetics

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture/On-Line, On-Line

MLSO 606: Bioinformatics

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture/On-Line, On-Line

MLSO 610: Reg & Fiscal Issues Lab Mgmt

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture/On-Line, On-Line

MLSO 611: Molecular Diagnostic Technique

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture/On-Line, On-Line

MLSO 812: Med Lab Sci Comp - Chemistry

Students participate in all phases of laboratory functions common to contemporary clinical laboratory practice in their field of study. Components include practical work experience, participation in and/or observation of specialty area(s), and quality. Graduate practical internships in affiliated clinical and/or research laboratories.

Credits: 1**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Lecture/On-Line, On-Line, Practicum**MLSO 813: Med Lab Sci Comp - Microbiology****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Lecture/On-Line, On-Line**MLSO 814: Med Lab Sci Comp - Hematology****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Lecture/On-Line, On-Line**MLSO 815: Med Lab Sci Comp - Immunohema****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Lecture/On-Line, On-Line**MLSO 816: Molecular Technique Competency****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Lecture/On-Line, On-Line**MLSO 817: Med Lab Science Competency****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Lecture/On-Line, On-Line

Medical Laboratory Science (MLS)

MLS 500: Intro to Medical Lab Science**Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Lab, Lecture, Lecture/Lab, Lab/Lecture/Online, On-Line**MLS 512: Clinical Microbiology I**

Study the biology of clinically significant bacteria. Emphasizes pathophysiology and diagnostic procedures and tests used for their detection and identification. Topics of learning include, but not limited to, epidemiology, signs and symptoms of disease, mechanisms of infection and treatment. Contemporary laboratory methodologies used to examine, process and analyze clinical specimens are also discussed.

Credits: 4**College:** Jefferson College of Health Professions**Schedule Type:** Lab, Lecture, Lecture/Lab, Lab/Lecture/Online, On-Line**MLS 513: Clinical Microbiology II**

Continuation of Clinical Microbiology I. Study the biology of clinically significant bacteria such as, but not limited to, obligate anaerobes, partially acid fast bacilli and mycobacteria. Parasitology, mycology and virology will also be studied. Emphasizes pathophysiology and diagnostic procedures and tests used for their detection and identification. Topics of learning include, but not limited to, epidemiology, signs and symptoms of disease, mechanisms of infection and treatment. Contemporary laboratory methodologies used to examine, process and analyze clinical specimens are also discussed.

Credits: 3.5**College:** Jefferson College of Health Professions**Schedule Type:** Lab, Lecture, Lecture/Lab**MLS 523: Clinical Chemistry I**

Study of the significance of chemical analytes indicative of human health and disease. Topics of learning include, but not limited to, analytical methodologies, operating principles, and utilization of biochemical laboratory instrumentation, equipment and analyzers for analyte determinations; clinical and research. Chemical analytes that will be discussed throughout the duration of this course include, but not limited to, carbohydrates, electrolytes, proteins, enzymes, non-protein nitrogen compounds, lipids and blood gases. Quality control and preventative maintenance methods are also discussed.

Credits: 3.5**College:** Jefferson College of Health Professions**Schedule Type:** Lab, Lecture, Lecture/Lab, Lab/Lecture/Online, On-Line**MLS 524: Clinical Chemistry II**

Continuation of Clinical Chemistry I. Topics of learning include, but not limited to, analytical methodologies, operating principles, and utilization of biochemical laboratory instrumentation, equipment and analyzers for analyte determinations; clinical and research. Emphasis on the study of organ function, endocrinology, heme derivatives, nutrition assessment, toxicology, therapeutic drug monitoring, tumor markers, specialized care and special chemistry and problem solving in the clinical chemistry laboratory.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Lab, Lecture, Lecture/Lab**MLS 541: Clinical Hematology I****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lab, Lecture, Lecture/Lab, Lab/Lecture/Online, On-Line**MLS 543: Clinical Hematology II****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lab, Lecture, Lecture/Lab**MLS 551: Immunohematology I****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lab, Lecture, Lecture/Lab**MLS 552: Immunohematology II****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lab, Lecture, Lecture/Lab

MLS 575: Medical Laboratory Science Sem

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture, Lecture/On-Line

MLS 576: Urinalysis and Body Fluids

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lab, Lecture, Lecture/Lab

MLS 812: Med Lab Sci Practicum I

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Clinical, Lecture, Practicum, Research

MLS 813: Med Lab Sci Practicum II

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Clinical, Lecture, Practicum, Research

MLS 814: Med Lab Sci Practicum III

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Clinical, Lecture, Practicum, Research

MLS 815: Med Lab Sci Practicum IV

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Clinical, Lecture, Practicum, Research

MLS 816: Comprehensive Exam

Credits: 0

College: Jefferson College of Health Professions

Schedule Type: Clinical, Exam, On-Line

MLS 817: Clinical Hematology Seminar

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: On-Line

MLS 818: Clinical Chemistry Seminar

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: On-Line

MLS 819: Clinical Microbiology Seminar

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: On-Line

MLS 820: Immunohematology Seminar

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: On-Line

Medical Physics (MEDP)

MEDP 600: Radiation Physics

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, Seminar

MEDP 601: Cross Sectional Anatomy

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture, Seminar

MEDP 603: Medical Imaging Physics

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

MEDP 610: Radiation Protection

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

MEDP 612: Applied Rad Therapy Phys Lab I

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Clinical, Lecture/Lab, Practicum

MEDP 613: Applied Radiation Therapy Lab II

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Clinical, Lecture/Lab

MEDP 614: Rad Therapy Physics Clin Pract

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Clinical, Lecture

MEDP 635: Radiation Therapy Physics I

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, Seminar

MEDP 636: Radiation Therapy Physics II

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

MEDP 640: Introduction to Radiology

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: On-Line

MEDP 645: Diagnostic Imaging Physics

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

MEDP 650: Capstone I

Credits: 6

College: Jefferson College of Health Professions

Schedule Type: Lecture

MEDP 651: Capstone II

Credits: 6

College: Jefferson College of Health Professions

Schedule Type: Clinical, Lecture

MEDP 670: Medical Physics Seminar I

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: Lecture, Seminar

MEDP 671: Medical Physics Seminar II

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: Lecture

MEDP 672: Medical Physics Seminar III

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: Lecture

MEDP 673: Medical Physics Seminar IV**Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Lecture

Medical Technology (MT)

MT 507: Clin & Molecular Lab & Techniq**Credits:** 4**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**MT 509: Biologic Fluids****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lab, Lecture, Lecture/Lab**MT 512: Microbiology I****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lab, Lecture**MT 513: Microbiology II****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lab, Lecture, Lecture/Lab**MT 523: Chemistry I****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lab, Lecture**MT 524: Chemistry II****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lab, Lecture**MT 531: Immunology****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lab, Lecture, On-Line**MT 541: Hematology I****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lab, Lecture**MT 543: Hematology II****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lab, Lecture, Lecture/Lab**MT 552: Immunohematology****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lab, Lecture**MT 574: Basic Clinical Techniques****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Lab**MT 575: MLS Seminar****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Seminar**MT 576: Urinalysis and Body Fluids****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lab, Lecture, Lecture/Lab**MT 812: Medical Technology Practicum I****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Lecture, Practicum**MT 813: Med Tech Practicum II****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Practicum, Reseach**MT 814: Med Tech Practicum III****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Clinical**MT 815: Med Tech Practicum IV****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Clinical**MT 816: Comprehensive Exam****Credits:** 0**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Exam, On-Line

Medicine (MED)

Microbiology (JCLS) (MI)

MI 500: Medical Micro-Immunol**Credits:** 10**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture/Lab**MI 505: Microbiology Biochemistry****Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture, On-Line**MI 514: Medical Parasitology****Credits:** 2**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture/Lab**MI 520: Diagnostic Parasitology****Credits:** 2**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture/Lab**MI 521: Intro to Immunology****Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture, On-Line**MI 522: Vaccinology&Immunotherapeutics****Credits:** 2**College:** Jefferson College of Life Sciences**Prerequisites:** MI 505 and MI 521**Schedule Type:** Lecture

MI 530: Microbial Pathogenesis of Disease

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Lecture, On-Line

MI 531: Medical Virology

Credits: 2

College: Jefferson College of Life Sciences

Prerequisites: BI 515 and BI 525

Schedule Type: Lecture

MI 532: Medical Mycology

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Lecture/Lab, On-Line

MI 540: MI-Antimicrobial Agents

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Lecture, On-Line

MI 580: Principles-Epidemiology

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lecture, On-Line

MI 582: Diagnostic Microbiol

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lecture/Lab, On-Line, Seminar

MI 590: Intro Clin Virology

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Lecture, On-Line

MI 590A: Intro Clin Virology

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Lecture

MI 590B: Intro Clin Virology B

Credits: 1

College: Jefferson College of Life Sciences

Schedule Type: Lecture/Lab

MI 600: Microbiology

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lecture

MI 610: Micro Teaching Experien

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Lab

MI 611: Molecular Virology

Credits: 2

College: Jefferson College of Life Sciences

Prerequisites: MI 500 and MI 531

Schedule Type: Lecture

MI 613: Retroviruses

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Lecture

MI 614: Biology/Pathology-AIDS

Credits: 2

College: Jefferson College of Life Sciences

Prerequisites: MI 613

Schedule Type: Lecture

MI 615: Contemp Topics-Micro I

Credits: 1-3

College: Jefferson College of Life Sciences

Schedule Type: Lecture

MI 625: Contemp Topics-Micro II

Credits: 1-3

College: Jefferson College of Life Sciences

Schedule Type: Lecture

MI 640: Research Rotation I

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lab

MI 650: Research Rotation II

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lab

MI 660: Research Rotation III

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lab

MI 670: Viral Morphogenesis

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Lecture

MI 675: VACCINOLOGY

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Lecture

MI 682: Adv Diagnostic Micro

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Lecture, On-Line

MI 685: Neurovirology

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lecture

MI 689: Emerging Infectious Diseases

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Lecture

MI 711: Current Lit of Micro I

Credits: 1

College: Jefferson College of Life Sciences

Schedule Type: Lecture, Seminar

MI 718: Infectious Disease Roun

Credits: 1

College: Jefferson College of Life Sciences

Prerequisites: MI 582 [Min Grade: B]

Schedule Type: Lecture

MI 721: Current Lit of Micro II**Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** Reseach, Seminar**MI 731: Current Lit of Micro III****Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** Reseach, Seminar**MI 810: Clerkship - MSMI****Credits:** 1-6**College:** Jefferson College of Life Sciences**Schedule Type:** Clinical, Independent Study**MI 820: Master's Clerkship-MI****Credits:** 1-6**College:** Jefferson College of Life Sciences**Schedule Type:** Reseach**MI 830: Clerkship - MSMI****Credits:** 1-6**College:** Jefferson College of Life Sciences**Schedule Type:** Clinical, Reseach**MI 840: Capstone Project****Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Reseach**MI 870: Research - MSMI****Credits:** 1-6**College:** Jefferson College of Life Sciences**Schedule Type:** Reseach**MI 880: Master's Research-MI****Credits:** 1-6**College:** Jefferson College of Life Sciences**Schedule Type:** Reseach**MI 890: Research - MSMI****Credits:** 1-6**College:** Jefferson College of Life Sciences**Schedule Type:** Reseach

Microbiology (MD) (MICR)

MICR 580: Principles of Epidemiology**Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture

Midwifery (MIDW)

MIDW 500: Midwifery Refresher Placeholder

This course is a zero credit placeholder for the midwifery refresher process. This course is used as a placeholder for midwives who are currently nationally certified by the American Midwifery Certification Board and who have been accepted as non-matriculated students into an individualized refresher process consistent with American College of Nurse-Midwives guidelines.

Credits: 0**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, On-Line**MIDW 501: Orientation Residency**

During this required on-campus residency, students create a scholarly community through social and academic workshops, navigate university resources, and review the doctoral curriculum. Students examine social determinants of health and consider their impact on women, newborns and families. Using the framework of the ACNM document, Hallmarks of Midwifery, and design thinking strategies, students enter into a dialogue about important issues facing the profession related to clinical practice, policy and advocacy, education, and administration. In collaboration with faculty, students continue exploration of possible topics and scope of the Advances in Midwifery (AIM) project, through the lens of feminist or other theories.

Credits: 1**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Lecture/On-Line, On-Line, Seminar**MIDW 600: Adv Placemnt Clinical Challenge****Credits:** 0**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Lecture, Lecture/On-Line, On-Line, Rotation**MIDW 602: Interviewing and Counseling****Credits:** 0.5**College:** Jefferson College of Health Professions**Schedule Type:** On-Line**MIDW 610: Antepartum Care**

Antepartum Care This course examines the fundamentals of prenatal care, including the components of prenatal care, criteria for assessing perinatal outcomes and the application of the midwifery management process in the antepartum period. Theoretical foundations for diagnosis and dating of pregnancy, common discomforts of pregnancy, assessment of pelvic adequacy and assessment of fetal well-being and nutrition in pregnancy are covered in depth.

Credits: 4**College:** Jefferson College of Health Professions**Schedule Type:** On-Line**MIDW 611: Intrapartum Care**

Intrapartum Care This course teaches the principles of midwifery for the laboring woman and her family, correlating physiologic processes to the maternal and fetal experiences of labor and birth. Concepts of normal birth and its variations lead to thoughtful analysis of management options.

Credits: 4**College:** Jefferson College of Health Professions**Schedule Type:** On-Line**MIDW 612: Postpartum/Newborn Care**

Postpartum/Newborn Care This course develops the knowledge base for assessing the physical and emotional changes of the postpartum period, breastfeeding, early attachment and parenting behaviors. It provides the knowledge base for understanding the physiology of transition to extrauterine life and early newborn adaptations. Assessments for newborn health, gestational age and attachment behaviors are included.

Credits: 2.5**College:** Jefferson College of Health Professions**Schedule Type:** On-Line**MIDW 613: Embryology and Genetics****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** By Appointment, On-Line

MIDW 619: Adv Perinatal Pathophysiology**Credits:** 4**College:** Jefferson College of Health Professions**Schedule Type:** On-Line**MIDW 631: Midw Care/AmbulatorySettings I**

Clinical I Maternity and Well Woman Care 1 The course consists of supervised clinical practice in the midwifery management of uncomplicated antepartum and well-woman clients needing routine primary care, care for common gynecologic problems and contraception. Students learn consistent and accurate use of the midwifery management process with emphasis on subjective and objective data collection and beginning assessment and plan development. An on-campus skills workshop prepares students for this clinical course and includes risk assessment, development of a needs assessment and problem list, and pertinent hand skills. Additionally, history taking and physical assessment will be reviewed and demonstrated. Microscopy skills will be introduced. Contraceptive techniques will be reviewed.

Credits: 2**College:** Jefferson College of Health Professions**Prerequisites:** MIDW 641 [Min Grade: C]**Schedule Type:** Clinical, Rotation**MIDW 631E: Clinical I Well Woman & Mate I****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Rotation**MIDW 632: MidwCare/AmbulatorySettings II**

Clinical II Maternity and Well Woman Care 2 The course consists of supervised clinical practice in the midwifery management of uncomplicated antepartum and well-woman clients needing routine primary care, care for common gynecologic problems and contraception. Students are expected to continue to demonstrate consistent and accurate use of the midwifery management process with emphasis on independent development of an assessment, plan for, and evaluation of, care. This course is three credits and consists completely of continued clinical practice in the midwifery management of uncomplicated antepartum and well woman clients needing routine primary care, care for common gynecologic problems and contraception.

Credits: 3**College:** Jefferson College of Health Professions**Prerequisites:** MIDW 631 [Min Grade: C]**Schedule Type:** Clinical, Rotation**MIDW 632E: Clinical II Well Woman & Mater****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Rotation**MIDW 633: Clin.III Full Scop Midw Care I****Credits:** 4**College:** Jefferson College of Health Professions**Prerequisites:** MIDW 640 [Min Grade: C]**Schedule Type:** Clinical, Rotation**MIDW 633E: Clin.III Full Scop Midw Care I****Credits:** 4**College:** Jefferson College of Health Professions**Prerequisites:** MIDW 633 [Min Grade: TH]**Schedule Type:** Clinical, Rotation**MIDW 634: Clin.IV Full Scope Midw Care 2**

Clinical IV Full Scope Midwifery Care 2 Clinical IV consists of supervised clinical practice in fullscope midwifery care in a student role. Students manage uncomplicated and complicated clients needing primary care, gynecologic, intrapartum and perinatal care. Students continue to demonstrate consistent and accurate use of the midwifery management process with emphasis on independent assessments, planning, implementation and evaluation of care, consultation and referral.

Credits: 5**College:** Jefferson College of Health Professions**Prerequisites:** MIDW 633 [Min Grade: C]**Schedule Type:** By Appointment, Clinical, Rotation**MIDW 634E: Clin.IV Full Scope Midw Care 2**

Clinical IV Full Scope Midwifery Care 2 Clinical IV consists of supervised clinical practice in fullscope midwifery care in a student role. Students manage uncomplicated and complicated clients needing primary care, gynecologic, intrapartum and perinatal care. Students continue to demonstrate consistent and accurate use of the midwifery management process with emphasis on independent assessments, planning, implementation and evaluation of care, consultation and referral. Pre-requisite is successful completion of CMW633, Clinical III.

Credits: 5**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Rotation**MIDW 635: Basic Skills in Health Care**

Basic Skills in Health Care This course is an introduction to common health care skills and knowledge used in clinical practice. Presentation of self as care provider to diverse clientele with respect for human rights is emphasized. Contents include but are not limited to vital sign measurement and interpretation, infection control, sterile technique, wound care, urinary catheterization, venipuncture, fetal and uterine external monitoring application, emergency response procedures, therapeutic presence and communication, and skills in team building and patient advocacy. Medical terminology, written and electronic medical records and basic laboratory assessments will be reviewed. Practice and successful return demonstration of selected skills will be done at the student's first on campus experience after completion of this course.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Lecture/On-Line, On-Line**MIDW 635L: Basic Skills in Health Care Lab**

During this one week on-campus intensive laboratory course, students review, practice and demonstrate selected basic health care skills for midwifery practice such as vital sign measurement, sterile technique, bladder catheterization, medical terminology, documentation of care and presentation of self as a clinician with faculty guidance and feedback for skill development. Students in this laboratory course participate in hands-on practice using task trainers and simulated patient care scenarios to build beginning competency.

Credits: 1**College:** Jefferson College of Health Professions**Schedule Type:** Lab

MIDW 636: Environments of Health Care

Environments of Health Care The effects of various environments of care on social dynamics between health care providers and patients will be explored. Theories of stress and coping and shared leadership will be addressed. Environments examined will include: home, office/ clinic, hospital/health care institution, and care in place ? disaster/ emergency care. Available resources in each environment and the evidence supporting their use or misuse will be discussed. Observational clinical experiences in a variety of environments will be described and analyzed via reflective journals and asynchronous seminar discussion. Midwifery role and scope of practice in the various environments will be highlighted. Identifying local health care providers and resources for future practice referrals situates midwifery care in a system which provides for needs of women and their families ranging from simple to complex.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Lecture/On-Line, On-Line**MIDW 637: Health & Illness in Clini Prac**

Health and Illness in Clinical Practice This course will examine concepts of health and illness at various stages of human development. The midwifery model of care and the midwifery management process will be introduced as frameworks guiding care practices. Wellness care and complementary integrated approaches will be discussed. Selected common health alterations at every life phase will be explored, with emphasis on the midwife's role for independent or collaborative management or referral. The plan of care for these clients ? including further testing or assessment, therapeutics and educational needs - will be examined. Problem based learning scenarios will serve as the stimulus for identifying learning needs and developing midwifery care strategies.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Lecture/On-Line, On-Line**MIDW 638: Advanced Pharmacology I**

This course is a comprehensive course in pharmacology for womens health care. The language of pharmacology and the principles of pharmacodynamics and pharmacokinetics serve as the foundation for the course. Major classifications of agents that are covered in the course include: hormones, antimicrobials, analgesia and anesthesia, over-the-counter drugs. Prescriptive writing, including legal and ethical aspects, is covered as well. At the completion of this course, students will have advanced knowledge in pharmacology.

Credits: 2.5**College:** Jefferson College of Health Professions**Schedule Type:** On-Line**MIDW 639: Advanced Pharmacology II****Credits:** 0.5**College:** Jefferson College of Health Professions**Schedule Type:** On-Line**MIDW 640: Prep for Full Scope Practice**

Preparation for Full Scope Midwifery Practice This on-campus course explores issues in midwifery practice including: the role, rights and responsibilities of the midwife in the clinical practice setting; the legal, ethical and financial realities of professional midwifery practice; alternatives in full scope midwifery care with examples from experts; and environments of midwifery care including home, hospital and birth center settings. Students take a closer look at one birth center model of childbearing care by spending time on site. Content covered in this visit includes: 1) the history, philosophy and development of the birth center movement in the United States and 2) the accreditation and needs assessment process.

Credits: 1**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Lab, Lecture/Lab, Online Lab**MIDW 641: Prep for Office Based Pract.**

This on-campus intensive course focuses on building the office-based clinical skills a midwife requires to successfully communicate with and care for clients. Clinical decision making and use of the midwifery management process is emphasized. Hand skills as well as interviewing and counseling skills are reinforced during laboratory simulation. Clinical microscopy and laboratory result interpretation are practiced. Skills for building trust and demonstrating respect for clients are woven throughout. Expectations for clinical rotations are reviewed.

Credits: 1**College:** Jefferson College of Health Professions**Schedule Type:** By Appointment, Clinical, Lab, Lecture/Lab, On-Line**MIDW 641E: Prep for Office Based Prac Ext**

This on-campus intensive course focuses on building the office-based clinical skills a midwife requires to successfully communicate with and care for clients. Clinical decision making and use of the midwifery management process is emphasized. Hand skills as well as interviewing and counseling skills are reinforced during laboratory simulation. Clinical microscopy and laboratory result interpretation are practiced. Skills for building trust and demonstrating respect for clients are woven throughout. Expectations for clinical rotations are reviewed.

Credits: 1**College:** Jefferson College of Health Professions**Prerequisites:** MIDW 641 [Min Grade: TH]**Schedule Type:** Lab, Online Lab, On-Line**MIDW 642: Professional Issues**

This course is designed to provide an appreciation of the history and critical issues in midwifery, as well as health care in the United States in general. This course will also increase appreciation of the variety of roles that a midwife can play and aid in understanding rights and responsibilities as a midwifery health care provider.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** On-Line

MIDW 643: Adv Physiol & Patho Prim Care

This course focuses on human physiology and pathophysiology and the application of these principles in the primary care of women. Anatomical and physiological principles necessary for health care professionals are reviewed. Normal and abnormal structures and processes underlying health and disease are explored with connections made to assessment and diagnosis in the clinical setting. Midwifery management of common primary care conditions across the health span is presented and explored.

Credits: 4

College: Jefferson College of Health Professions

Schedule Type: On-Line

MIDW 644: Advanced Pharmacology II

Advanced Pharmacology II prepares the midwife to provide appropriate drug therapy to women during pregnancy, intrapartum, and the postpartum period as well as to the newborn. Changes in pharmacodynamics and pharmacokinetics during pregnancy and in the neonatal period are reviewed. A general knowledge of pharmacotherapeutics is applied to the treatment of a variety of conditions during pregnancy, including hyperemesis, gestational diabetes, and urinary tract infections. The course also explores the use of vitamin and mineral supplementation throughout a woman's lifetime.

Credits: 1.5

College: Jefferson College of Health Professions

Schedule Type: On-Line

MIDW 645: Reproductive & Sexual Hlthcare

This course presents basic principles and application of well woman care across the life span. Reproductive anatomy and physiology is reviewed. Sexuality, menstrual cycle function/dysfunction, common gynecological conditions and problems, and family planning are common threads in this course. Midwifery management of gynecologic conditions, from routine care to more complex problems, is explored.

Credits: 4

College: Jefferson College of Health Professions

Schedule Type: On-Line

MIDW 646: Midwifery Nexus Project

As the culminating project for your basic midwifery education, this course provides a framework for students to further develop a particular area of interest relevant to midwifery practice emphasizing active, collaborative engagement with real world problems. Consistent with the definition of practice used by the American College of Nurse-Midwives (2011) for advanced midwifery education, this final project encompasses not only clinical care, but also education, policy, administration, and research. Each student will dialogue with faculty to develop and execute a final project that will contribute to the profession of midwifery.

Credits: 2.5

College: Jefferson College of Health Professions

Schedule Type: By Appointment - 1 student, Lecture/On-Line, On-Line

MIDW 660: Clinic Basc Skill for Midw Pra

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Clinical

MIDW 699: Adv. Health Assessment

This course presents the knowledge and skills for primary health care providers to complete a thorough and sensitive comprehensive history and physical examination on a client, with emphasis on the midwifery role. A professional approach to the development of the provider-client relationship is introduced. A methodical sequence to history taking, systems review and symptom appraisal is described. Assessment of the physical signs of health and health alterations is reviewed. Special populations, cultural variations and age-related issues across the life-span are considered. Selected diseases and disorders seen in primary care are explored for their manifestations found in a history and physical assessment. Clinical reasoning, critical decision-making, and the midwifery management process are emphasized and practiced. At the completion of this course, students will have advanced knowledge and skills in health assessment.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture/On-Line, On-Line

MIDW 712: Introduction to Health Policy

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: On-Line

MIDW 722: Clinical Administration

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: On-Line

MIDW 723: Advanced Clinical Practice

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: On-Line

MIDW 724: Intro to Teaching Methods

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: On-Line

MIDW 725: Repr Hltcare in Global Context

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: On-Line

MIDW 726A: Serv Learnn in Reproductv Hlth

Credits: 1.5

College: Jefferson College of Health Professions

Schedule Type: On-Line

MIDW 726B: Serv Learnn in Reproductv Hlth

Credits: 1.5

College: Jefferson College of Health Professions

Schedule Type: On-Line

MIDW 730: Theoretical Foundatns of Midw

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: On-Line

MIDW 731: Evidence-Based Care:Eval Rsch

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: On-Line

MIDW 800: Curr Issues in Mid & Women Hlt

Students will explore current issues in midwifery and situate their doctoral project in these contexts. Current national and global agendas in midwifery translational research, education, clinical practice, and policy will be explored in depth. Students will consider emerging issues in healthcare, educations, and practice that can guide the formation of the AIM project statement of purpose.

Credits: 2**College:** Jefferson College of Health Professions**Schedule Type:** On-Line**MIDW 802E: Aim Workshop II Extension****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** On-Line**MIDW 803: Aim Workshop III**

This course is designed to help students advance their work related to their AIM project. Through committee feedback, readings, and mentored individual work, students will finalize their doctoral project statement, create an operational plan for their project, and finalize their review article related to their AIM project.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** On-Line**MIDW 803E: Aim Workshop III Extension****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** On-Line**MIDW 804: Aim Workshop IV**

This course is designed to help students complete their work related to their AIM project. With committee feedback and mentored individual work, students will implement and complete their doctoral Advances in Midwifery (AIM) project.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** On-Line**MIDW 804E: Aim Workshop IV Extension****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** On-Line**MIDW 805: Organizational Change**

This course introduces students to the principles of organizational change and applies these principles to real world experiences. This course focuses on helping students understand how to integrate systems thinking into an analysis of the human, organizational, and social objectives within various types of health care organizations. It also examines how organizations assist or impede the development of healthcare quality or safety improvement initiatives and how organizations adapt or do not adapt to change.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** On-Line**MIDW 806E: Aim Workshop V Extension****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** On-Line**MIDW 807: Data Driven Mid&Womens Hlthcre**

Increasingly midwives and other health care providers must demonstrate the value of their work. In this class you will become familiar with various electronic means to collect practice-level data and how to analyze it to support innovative practice. You will also use publicly available electronic data to inform health care practice, education, policy and advocacy, or administration. This is a required course for Doctorate of Midwifery students. It is open to graduate students within Jefferson with permission of the instructor.

Credits: 1.5**College:** Jefferson College of Health Professions**Schedule Type:** On-Line**MIDW 809: Hlth Policy Analysis: Part II**

The focus of this course is to delve deeply into health policy development, analysis and implementation and the role of the health care provider in influencing health policy. The student will complete a health policy analysis on an issue related to Women's Health. This course is the second of a two-part sequence of courses on Health Policy required for Doctorate of Midwifery Students, who will complete the health policy analysis project started in DMW 808 Health Policy Analysis 1 in an area related to their AIM project. This course is open to other students at Jefferson who are interested in health policy in women's health with permission of the instructor.

Credits: 1.5**College:** Jefferson College of Health Professions**Schedule Type:** On-Line**MIDW 810: Epidemio for Mid & Womens Hlth**

Epidemiology is the science of public health. In this course, students will acquire tools they can use to analyze public health problems and clinical research. These will include measures of women's and infants' health particularly relevant to midwifery including infant mortality, pregnancy-related mortality, and pregnancy-related morbidity; characteristics of health screening tests; and an understanding of such basic epidemiologic concepts as the epidemiologic transition and life course epidemiology. We will use these tools to analyze causes of racial and ethnic disparities in maternal and newborn health and begin to explore potential solutions.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** On-Line**MIDW 811: Leadership in Midwifery Health**

This is a 2 credit online course limited to students in the doctoral program in Midwifery. Students will explore a variety of leadership theories and styles and differentiate leadership from management. The inter-relationship of power and influence will be considered as well as the impact of gender, culture and race on leadership. Using case studies, students will apply theory and research to become effective healthcare leaders in real world contexts. The theoretical foundation from this course will be utilized in the further development of the AIM project.

Credits: 2**College:** Jefferson College of Health Professions**Schedule Type:** On-Line

MIDW 812: Professional Communication

The most innovative and successful clinical, public policy, or research projects are of limited value if their methods and results are not disseminated for others to learn from and emulate. Students will develop skills to effectively convey results from their AIM topic to the broader community. Through the course, weekly writing exercises will refine scholarly and professional writing skills. We will discuss in depth writing for two common types of publications, the literature review and the research article, and also discuss the basics of professional presentations. At the end of the course students will present the literature review for their AIM topic, both orally and as a written article.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: On-Line

MIDW 813: Case Studies in Mid Clin Adm

The profession of midwifery is fulfilling work, because it addresses women's needs, hopes, and dreams. However, many midwives work in situations in which they lack autonomy and feel unable to provide high quality midwifery care, or else are satisfied and effective but work more hours for lower levels of pay. In this course we will explore various models of midwifery practice to identify effective staffing, compensation, and organizational structures. We will explore alternative payment mechanisms for midwifery practice that include outcomes as well as, or in place of, volume. We will address the interplay of ethical, financial and clinical issues in effective practice leadership.

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: On-Line

MIDW 814: Aim Workshop VI

This course is designed to help students disseminate the results of their AIM project. With committee feedback and mentored individual work, students will create two products, a publishable paper and a poster presentation, that describe the results of the AIM project.

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: On-Line

MIDW 814E: Aim Workshop VI Extension

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: On-Line

MIDW 815: Grant Writing

Incorporating best practices into care is expensive and time-consuming. Often funding is needed to get access to the resources and administrative support needed to integrate innovative cutting-edge practices. This course is designed to help students understand the grant writing process and to be able to find, write, and submit grants to support their work.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: On-Line

MIDW 821: AIM Prj Design & Methods

Midwives in leadership must respond to changing health care landscapes. Addressing health disparities, incorporating new technologies, or creating systems of care require health professionals to create and integrate innovative practices through successful project design and execution. Doctoral project design requires setting clear and measurable goals, objectives, and outcomes; understanding the culture, needs, and resources of the community and/or organization where the project will be carried out. This course will give doctoral students the skills needed to design and execute a variety of project approaches when crafting their Advances in Midwifery (AIM) project. Through course discussion, readings, and individual work, students will understand multiple methods of project design, develop skills needed to successfully design achievable projects that are responsive to contextual factors; and create a project statement which will become the framework for their AIM project.

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: On-Line

MIDW 822: AIM Operations Workshop

This course is designed to help students complete their work related to their AIM project. With committee feedback and mentored individual work, students will implement and complete their doctoral Advances in Midwifery (AIM) project.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: On-Line

MIDW 823: AIM Implementation Workshop

This course is designed to help students complete their work related to their AIM project. With committee feedback and mentored individual work, students will implement and complete their doctoral Advances in Midwifery (AIM) project.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: On-Line

MIDW 823E: AIM Implementation Workshop

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: On-Line

MIDW 824: AIM Analysis Workshop

This course is designed to help students complete their work related to their AIM project. With committee feedback and mentored individual work, students will implement and complete their doctoral Advances in Midwifery (AIM) project.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: On-Line

MIDW 824E: AIM Analysis Extension

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: On-Line

MIDW 825: AIM Dissemination Workshop

This course is designed to help students complete their work related to their AIM project. With committee feedback and mentored individual work, students will implement and complete their doctoral Advances in Midwifery (AIM) project.

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: On-Line

Mind-Body Medicine (MBM)

MBM 500: Foundations in Mind-Body Med

Credits: 3

College: Institute for Emerging Health Professions

Schedule Type: On-Line

MBM 510: Advances in MBSR

Credits: 3

College: Institute for Emerging Health Professions

Schedule Type: On-Line

MBM 520: Advanced Mind-Body Pract (NET)

Credits: 3

College: Institute for Emerging Health Professions

Schedule Type: On-Line

National Student Exchange (NSE)

NSE 500: National Student Exchange

Credits: 6

College: Undefined College

Schedule Type: Lecture

Neuroscience (NS)

NS 530: Neuroanatomy

Credits: 4

College: Jefferson College of Life Sciences

Schedule Type: Lecture/Lab

NS 601: Profiles in Neurosci Research

Credits: 1

College: Jefferson College of Life Sciences

Schedule Type: Lecture, On-Line

NS 610: Research Rotation in NS

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Reseach

NS 616: Neuroscience Journal Club I

Credits: 1

College: Jefferson College of Life Sciences

Schedule Type: On-Line, Seminar

NS 620: Research Rotation in NS

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Reseach

NS 625: Fund of VirallInfect & Disease

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Lecture/Lab

NS 626: Neuroscience Journal Club II

Credits: 1

College: Jefferson College of Life Sciences

Schedule Type: On-Line, Seminar

NS 627: MSNS Neuroscience Journal Club

Credits: 1

College: Jefferson College of Life Sciences

Schedule Type: Lecture

NS 630: Research Rotation in NS

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Reseach

NS 636: Neuroscience Journal Club III

Credits: 1

College: Jefferson College of Life Sciences

Schedule Type: Lecture, Lecture/On-Line, On-Line, Seminar

NS 650: TopicsNS: SynapticTransmission

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lecture, Seminar

NS 690: Neuropharmacology

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Lecture, On-Line

NS 700: Intro to Neuroscience

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Lecture, On-Line

NS 710: Seminar-NS

Credits: 1

College: Jefferson College of Life Sciences

Schedule Type: On-Line, Seminar

NS 712: Basic Neuropathology

Credits: 2

College: Jefferson College of Life Sciences

Prerequisites: NS 700

Schedule Type: Lecture

NS 715: MolecularCellular Neuroscience

Credits: 2

College: Jefferson College of Life Sciences

Prerequisites: GC 550

Schedule Type: Lecture, On-Line

NS 720: Seminar-NS

Credits: 1

College: Jefferson College of Life Sciences

Schedule Type: On-Line, Seminar

NS 725: Translational Neuroscience

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Clinical

NS 730: Seminar-NS

Credits: 1

College: Jefferson College of Life Sciences

Schedule Type: On-Line, Seminar

NS 735: Clinical Mentorship Neurosci

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Clinical

NS 740: Applied Statistics in Neurosci

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Lecture, On-Line

NS 745: AdvTop NeurodegenerativeDiseas

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Lecture, On-Line, Seminar

NS 820: MSNS Clerkship

Credits: 1-6

College: Jefferson College of Life Sciences

Schedule Type: Reseach

NS 830: Master's Clerkship

Credits: 1-6

College: Jefferson College of Life Sciences

Schedule Type: Clinical, Practicum, Reseach

NS 880: MSNS Research

Credits: 1-6

College: Jefferson College of Life Sciences

Schedule Type: Reseach

NS 890: Master's Research

Credits: 1-6

College: Jefferson College of Life Sciences

Schedule Type: Clinical, Practicum, Reseach

Nursing (NU)

NU 522: Nurse Administrator Role

Credits: 2

College: Jefferson College of Nursing

Schedule Type: Lecture

NU 557: Advanced Physiology

Credits: 3

College: Jefferson College of Nursing

Schedule Type: Lecture

NU 560: Adv Pharmacotherapeutics

Credits: 3

College: Jefferson College of Nursing

Schedule Type: Lecture, On-Line

NU 569: BasicPrinc NA Simulation Lab

Credits: 1

College: Jefferson College of Nursing

Schedule Type: Lab

NU 570: Pathophysiology Human Disease

Credits: 3

College: Jefferson College of Nursing

Schedule Type: Lecture, On-Line

NU 590: Clin Decision Making WHCNP I

Credits: 3

College: Jefferson College of Nursing

Schedule Type: Clinical, Didactic, On-Line

NU 591: Clin Decision Making WHCNP II

Credits: 3

College: Jefferson College of Nursing

Schedule Type: Clinical, Didactic, Lecture, On-Line

NU 592: Clin Decision Making WHCNP III

Credits: 3

College: Jefferson College of Nursing

Schedule Type: Clinical, Didactic

NU 601: Theories and Models

Credits: 2

College: Jefferson College of Nursing

Schedule Type: Lecture

NU 602: Health Policy

Credits: 3

College: Jefferson College of Nursing

Schedule Type: Lecture, On-Line

NU 603: Research Adv Prac Nursing I

Credits: 3

College: Jefferson College of Nursing

Schedule Type: Didactic, Lecture, On-Line

NU 604: Research Seminar

Credits: 3

College: Jefferson College of Nursing

Prerequisites: NU 603

Schedule Type: On-Line, Seminar

NU 605: Role Of The Adv Prac Nur

Credits: 3

College: Jefferson College of Nursing

Schedule Type: Independent Study, Lecture, Lecture/On-Line, On-Line

NU 607: Trnsfrmng Health Care Delivery

Credits: 3

College: Jefferson College of Nursing

Schedule Type: Clinical, Didactic, On-Line

NU 608: Leadership&Mgmt/Oper Excel

Credits: 3

College: Jefferson College of Nursing

Schedule Type: Didactic, Lecture, Lecture/On-Line, On-Line

NU 609: Health Econo Finance & Policy

Credits: 3

College: Jefferson College of Nursing

Schedule Type: Didactic, On-Line

NU 610: Strategic Comm in Workplace

Credits: 3

College: Jefferson College of Nursing

Schedule Type: Didactic, On-Line

NU 611: Leadership Practicum Seminar I

Credits: 3

College: Jefferson College of Nursing

Schedule Type: Didactic, Lecture, On-Line

NU 612: Leadership Practicum Sem II

Credits: 3

College: Jefferson College of Nursing

Schedule Type: Didactic, Lecture

NU 613: Diag Rson & Crtcal Dcsion Mkng

Credits: 3

College: Jefferson College of Nursing

Schedule Type: Clinical, Didactic, Lecture, Reseach

NU 614: Diag Rson Dcsion Mkng PMH II

Credits: 3

College: Jefferson College of Nursing

Schedule Type: Clinical, Lecture

NU 615: Diag Rson Dcsion Mkng PMH III

Credits: 3

College: Jefferson College of Nursing

Schedule Type: Clinical, Lecture

NU 616: Clin Tops-Rehab Child I**Credits:** 2**College:** Jefferson College of Nursing**Schedule Type:** Lecture**NU 617: Field-Rehab-Child NU I****Credits:** 5**College:** Jefferson College of Nursing**Schedule Type:** Clinical**NU 618: Trends Educ & Nurse Educ Role****Credits:** 3**College:** Jefferson College of Nursing**Schedule Type:** Didactic, Lecture, On-Line**NU 619: Onl Educ & Instcrt Des Aca Nur****Credits:** 3**College:** Jefferson College of Nursing**Schedule Type:** Clinical, Didactic**NU 620: HltCare:Access-UnderservedPopu****Credits:** 3**College:** Jefferson College of Nursing**Schedule Type:** Tutorial**NU 622: Nu Interventions-HIV****Credits:** 3**College:** Jefferson College of Nursing**Prerequisites:** NU 621 and NU 601 and NU 605**Schedule Type:** Lecture**NU 623: Nu Intervention - AIDS****Credits:** 3**College:** Jefferson College of Nursing**Prerequisites:** NU 621 and NU 601 and NU 605 and NU 622**Schedule Type:** Lecture**NU 625: Epidemiology for Health Profes****Credits:** 3**College:** Jefferson College of Nursing**Schedule Type:** Lecture, On-Line**NU 630: Clin Decision Making Adu APN****Credits:** 3**College:** Jefferson College of Nursing**Prerequisites:** NU 674**Schedule Type:** Clinical, Didactic, Lecture**NU 631: DR & CD for AcuCare APN I****Credits:** 3**College:** Jefferson College of Nursing**Prerequisites:** (PA 570 or NU 570) and NU 673 and (IDSC 560 or IDPT 560 or NU 560)**Schedule Type:** Clinical, Lecture**NU 632: Clin Deci Making Acu Care APN****Credits:** 3**College:** Jefferson College of Nursing**Prerequisites:** NU 631**Schedule Type:** Clinical, Didactic, Lecture, On-Line**NU 633: Cli Dec Makin/ Acu Car APN III****Credits:** 3**College:** Jefferson College of Nursing**Prerequisites:** NU 631 and NU 632**Schedule Type:** Clinical, Didactic, Lecture**NU 634: Diag Reas/Clin Des Mak/Onc-APN****Credits:** 3**College:** Jefferson College of Nursing**Prerequisites:** NU 674**Schedule Type:** Lecture**NU 635: Oncology Adv Practice Nurse II****Credits:** 3**College:** Jefferson College of Nursing**Schedule Type:** Lecture**NU 636: Clin Tops-Home Health I****Credits:** 2**College:** Jefferson College of Nursing**Schedule Type:** Lecture**NU 637: Field-Home Health Care I****Credits:** 5**College:** Jefferson College of Nursing**Schedule Type:** Clinical**NU 638: Clin Tops-Home Health II****Credits:** 2**College:** Jefferson College of Nursing**Schedule Type:** Lecture**NU 639: Field-Home Care NU II****Credits:** 5**College:** Jefferson College of Nursing**Schedule Type:** Clinical**NU 640: Clin Dec Making for Ped APN I****Credits:** 3**College:** Jefferson College of Nursing**Schedule Type:** Clinical, Lecture, On-Line**NU 641: Clin Dec Making Ped APN II****Credits:** 3**College:** Jefferson College of Nursing**Schedule Type:** Clinical, Didactic, Lecture**NU 642: Clin Dec Making for PedAPN III****Credits:** 3**College:** Jefferson College of Nursing**Schedule Type:** Clinical, Didactic, Lecture**NU 643: ENP Role/Emergency Care I****Credits:** 4**College:** Jefferson College of Nursing**Schedule Type:** Didactic, On-Line**NU 644: ENP Procedures/Emergen Care II****Credits:** 4**College:** Jefferson College of Nursing**Schedule Type:** Didactic, On-Line**NU 645: Collab Mgmt/Adv Emerg Care III****Credits:** 4**College:** Jefferson College of Nursing**Schedule Type:** Didactic, On-Line**NU 646: Clin Tops-Traum Brain I****Credits:** 2**College:** Jefferson College of Nursing**Corequisites:** NU 647**Schedule Type:** Lecture

NU 647: Field-Traum Brain Inju I**Credits:** 5**College:** Jefferson College of Nursing**Corequisites:** NU 646**Schedule Type:** Clinical**NU 648: ClinTops-Brain Injury II****Credits:** 2**College:** Jefferson College of Nursing**Corequisites:** NU 649**Schedule Type:** Lecture**NU 649: ClinField-Brain Inju II****Credits:** 5**College:** Jefferson College of Nursing**Corequisites:** NU 648**Schedule Type:** Clinical**NU 653: Clinical Practice III****Credits:** 3**College:** Jefferson College of Nursing**Prerequisites:** NU 650**Schedule Type:** Clinical, Seminar**NU 656: Clinical Practice VI****Credits:** 3**College:** Jefferson College of Nursing**Schedule Type:** Clinical, Seminar**NU 662: Diag/Dec Pract Perinatal Nur I****Credits:** 3**College:** Jefferson College of Nursing**Schedule Type:** Clinical, Didactic, Lecture, Lecture/Lab**NU 663: Diag/Dec Pract Perinatal Nu II****Credits:** 3**College:** Jefferson College of Nursing**Schedule Type:** Clinical, Didactic, Lecture/Lab**NU 664: Diag/Dec Pract Perinatal NullI****Credits:** 3**College:** Jefferson College of Nursing**Schedule Type:** Clinical, Didactic, Lecture/Lab**NU 665: Comp Clin DecMak Mom & Neonate****Credits:** 3**College:** Jefferson College of Nursing**Schedule Type:** Clinical, Didactic, Lecture/Lab**NU 667: NeonatalAdvPharmacotherapeutic****Credits:** 3**College:** Jefferson College of Nursing**Schedule Type:** Clinical, On-Line**NU 669: Anesthesia: Simulation Lab II****Credits:** 1-3**College:** Jefferson College of Nursing**Schedule Type:** Lab**NU 670: Senior Seminar I****Credits:** 3**College:** Jefferson College of Nursing**Schedule Type:** Seminar**NU 671: Role-Primary Care Provid****Credits:** 2**College:** Jefferson College of Nursing**Schedule Type:** Lecture**NU 672: Informatics for ANP****Credits:** 3**College:** Jefferson College of Nursing**Schedule Type:** Lecture, On-Line**NU 673: Compre Assess-Clin Decis****Credits:** 3**College:** Jefferson College of Nursing**Schedule Type:** Lecture, Lecture/Lab, On-Line**NU 674: Mgm-Adult - Primary Care****Credits:** 3**College:** Jefferson College of Nursing**Prerequisites:** PA 570 or NU 570 and IDPT 560 and IDPT 673 or NU 673**Schedule Type:** Clinical, Didactic, Lecture**NU 675: Children-Ambulatory Care****Credits:** 3**College:** Jefferson College of Nursing**Prerequisites:** NU 674**Schedule Type:** Clinical, Didactic, Lecture, Lecture/Lab**NU 676: Older Adult - Ambul Care****Credits:** 3**College:** Jefferson College of Nursing**Schedule Type:** Clinical, Didactic, Lecture/Lab**NU 677: Seminars in Primary Care****Credits:** 2**College:** Jefferson College of Nursing**Schedule Type:** Seminar**NU 678: Academic Nursing Seminar I****Credits:** 3**College:** Jefferson College of Nursing**Schedule Type:** Didactic, On-Line, Reseach**NU 679: Clinical Correlation Course****Credits:** 3**College:** Jefferson College of Nursing**Schedule Type:** Seminar**NU 680: Academic Nursing Seminar II****Credits:** 3**College:** Jefferson College of Nursing**Schedule Type:** Clinical, Didactic, Lecture, On-Line**NU 681: Comm.Systems Admin I****Credits:** 3**College:** Jefferson College of Nursing**Schedule Type:** Didactic, Lecture**NU 682: Comm.Systems Admin II****Credits:** 3**College:** Jefferson College of Nursing**Prerequisites:** NU 681**Schedule Type:** Didactic, Lecture**NU 683: Comm.Systems Admin III****Credits:** 3**College:** Jefferson College of Nursing**Prerequisites:** NU 682**Schedule Type:** Clinical, Lecture**NU 684: Academic Nursing Seminar III****Credits:** 3**College:** Jefferson College of Nursing**Schedule Type:** Didactic, Lecture, On-Line

NU 685: Diag & Path of Headache Disord

Credits: 4

College: Jefferson College of Nursing

Schedule Type: On-Line

NU 686: Curr & Emerg Treat Headche Dis

Credits: 4

College: Jefferson College of Nursing

Schedule Type: Lecture, On-Line

NU 687: Psych Factors in Headache Med

Credits: 2

College: Jefferson College of Nursing

Schedule Type: On-Line

NU 688: Curriculum in Nursing Educatio

Credits: 3

College: Jefferson College of Nursing

Schedule Type: On-Line, Seminar

NU 689: Care Info:Ethics/Issues/ Trend

Credits: 3

College: Jefferson College of Nursing

Schedule Type: Lecture/Lab, On-Line

NU 690: Informatics:Project Management

Credits: 3

College: Jefferson College of Nursing

Schedule Type: Lecture/Lab, On-Line

NU 691: HealthEcono & FinancManagement

Credits: 3

College: Jefferson College of Nursing

Schedule Type: Clinical, Lecture, On-Line

NU 692: Nurs Info:Project Management

Credits: 3

College: Jefferson College of Nursing

Schedule Type: Lecture

NU 693: Nurs InfoSeminar & Practicum I

Credits: 3

College: Jefferson College of Nursing

Schedule Type: Didactic, Lecture, Lecture/Lab, Practicum, Seminar

NU 694: Nurs Informatics & Pract II

Credits: 3

College: Jefferson College of Nursing

Schedule Type: Didactic, Lecture/Lab, Lecture/On-Line

NU 695: Nurs Informatics & Pract III

Credits: 3

College: Jefferson College of Nursing

Schedule Type: Clinical, Lecture/Lab, On-Line

NU 696: Leadership & Critical Thinking

Credits: 3

College: Jefferson College of Nursing

Schedule Type: Didactic, Lecture, Lecture/On-Line, On-Line

NU 699: Independent Study

Credits: 1-5

College: Jefferson College of Nursing

Schedule Type: Clinical, Independent Study, Lab, Lecture, Lecture/Lab, On-Line, Reseach, Seminar, Tutorial

NU 700: Pharmacokinetics & Dynamics

Credits: 3

College: Jefferson College of Nursing

Schedule Type: Didactic, Lecture, Lecture/On-Line, On-Line

NU 701: Scientific Underpinnings NP

Credits: 3

College: Jefferson College of Nursing

Schedule Type: Lecture, On-Line

NU 702: Practice Inq: DsgnMeth,Analys

Credits: 3

College: Jefferson College of Nursing

Schedule Type: Didactic, Lecture, On-Line

NU 703: Theor Found Org Chan HCS

Credits: 3

College: Jefferson College of Nursing

Schedule Type: Lecture, On-Line

NU 704: Phil, Found, Meth for E-B Prac

Credits: 3

College: Jefferson College of Nursing

Schedule Type: Didactic, Lecture, Lecture/On-Line, On-Line

NU 705: Adv Topics in Hlth Informatics

Credits: 3

College: Jefferson College of Nursing

Schedule Type: Didactic, Lecture, Lecture/On-Line, On-Line

NU 706: Qual Msremnt & Outcme Analysis

Credits: 3

College: Jefferson College of Nursing

Schedule Type: Didactic, Lecture, On-Line

NU 707: Leadership & Inter-Prof Collab

Credits: 3

College: Jefferson College of Nursing

Schedule Type: Didactic, Lecture, On-Line

NU 708: Clin Prev&Pop Hlth Imp Nat Hlt

Credits: 3

College: Jefferson College of Nursing

Schedule Type: Lecture, On-Line

NU 709: Currnt Issue Health Soc Policy

Credits: 3

College: Jefferson College of Nursing

Schedule Type: Didactic, Lecture, On-Line

NU 710: Spec-focused Practicum I

Credits: 3

College: Jefferson College of Nursing

Schedule Type: Clinical, On-Line

NU 711: Spec-focused Practicum II

Credits: 3

College: Jefferson College of Nursing

Schedule Type: Clinical, Didactic, On-Line, Seminar

NU 712: Spec-focused Practicum III

Credits: 3

College: Jefferson College of Nursing

Schedule Type: Clinical, On-Line

NU 713: Digital Transfrm in Healthcare

Credits: 3

College: Jefferson College of Nursing

Schedule Type: Didactic, Lecture, Lecture/On-Line, On-Line

NU 714: Hlthcre Sys Safe Quality Impro

Credits: 3

College: Jefferson College of Nursing

Schedule Type: Didactic, Lecture, On-Line

NU 715: Lead Strat Change in Era Hlth**Credits:** 3**College:** Jefferson College of Nursing**Schedule Type:** Didactic, Lecture, Lecture/On-Line, On-Line**NU 716: Persp Com Engage Pop Health****Credits:** 3**College:** Jefferson College of Nursing**Schedule Type:** Didactic, Lecture, Lecture/On-Line, On-Line**NU 717: Health and Social Policy****Credits:** 3**College:** Jefferson College of Nursing**Schedule Type:** Lecture, Lecture/On-Line, On-Line**NU 718: Intro to DNP Studies Schol Pro****Credits:** 1**College:** Jefferson College of Nursing**Schedule Type:** Didactic, Lecture, Lecture/On-Line, On-Line**NU 719: DNP Scholarly Proj Seminar I****Credits:** 4**College:** Jefferson College of Nursing**Schedule Type:** Didactic, On-Line**NU 720: Facil Learner-Centr Dev & Soc****Credits:** 3**College:** Jefferson College of Nursing**Schedule Type:** On-Line**NU 721: Contemp Curr Des & Role Exec****Credits:** 3**College:** Jefferson College of Nursing**Schedule Type:** On-Line**NU 722: Measuring Learning Outcomes****Credits:** 3**College:** Jefferson College of Nursing**Schedule Type:** On-Line**NU 724: Chem & Phys Related to Anes****Credits:** 2**College:** Jefferson College of Nursing**Schedule Type:** On-Line**NU 725: Intro to Executive Leadership****Credits:** 1**College:** Jefferson College of Nursing**Schedule Type:** Didactic, Lecture/On-Line, On-Line**NU 726: Trend Shaping Future Exec Lead****Credits:** 3**College:** Jefferson College of Nursing**Schedule Type:** Didactic, Lecture, On-Line**NU 727: Innov, Creat & Well Being Hlth****Credits:** 3**College:** Jefferson College of Nursing**Schedule Type:** Clinical, Didactic, Lecture/On-Line**NU 728: Exec Lead DNP Proj Pact Sem I****Credits:** 4**College:** Jefferson College of Nursing**Schedule Type:** Didactic, Lecture, On-Line**NU 738: Genrl Principles of Anesthesia****Credits:** 3**College:** Jefferson College of Nursing**Schedule Type:** On-Line**NU 748: Basic Principles of Anesthesia****Credits:** 3**College:** Jefferson College of Nursing**Schedule Type:** Lecture, Seminar**NU 750: Orientation to Clin Practice****Credits:** 0**College:** Jefferson College of Nursing**Schedule Type:** Clinical**NU 751: Clinical Practice I****Credits:** 3**College:** Jefferson College of Nursing**Schedule Type:** Clinical**NU 752: Clinical Practice II****Credits:** 3**College:** Jefferson College of Nursing**Schedule Type:** Clinical, Lecture**NU 753: Clinical Practice III****Credits:** 3**College:** Jefferson College of Nursing**Schedule Type:** Clinical**NU 754: Clinical Practice IV****Credits:** 3**College:** Jefferson College of Nursing**Schedule Type:** Clinical**NU 755: Clinical Practice V****Credits:** 3**College:** Jefferson College of Nursing**Schedule Type:** Clinical, Seminar**NU 756: Clinical Practice VI****Credits:** 3**College:** Jefferson College of Nursing**Schedule Type:** Clinical**NU 757: Clinical Practice VII****Credits:** 3**College:** Jefferson College of Nursing**Schedule Type:** Clinical**NU 758: Adv Principles of Anesthesia I****Credits:** 3**College:** Jefferson College of Nursing**Schedule Type:** Lecture, Lecture/Lab, Lecture/On-Line, On-Line**NU 759: Anesthesia: Simulation Lab I****Credits:** 1**College:** Jefferson College of Nursing**Schedule Type:** Lab**NU 768: Adv Principles of Anesthesia II****Credits:** 3**College:** Jefferson College of Nursing**Schedule Type:** Lecture**NU 775: Pathol Aspects of Disease II****Credits:** 3**College:** Jefferson College of Nursing**Schedule Type:** Lecture, Lecture/On-Line**NU 778: Clinical Correlation in Anesth****Credits:** 3**College:** Jefferson College of Nursing**Schedule Type:** Clinical, Didactic

NU 800: Philosophy of Sci in Nursing**Credits:** 3**College:** Jefferson College of Nursing**Schedule Type:** Didactic, Lecture, Lecture/On-Line, On-Line**NU 801: Theoretical Approaches to Res****Credits:** 3**College:** Jefferson College of Nursing**Schedule Type:** Lecture, Lecture/On-Line, On-Line**NU 802: Foundations/Scientific Writing****Credits:** 3**College:** Jefferson College of Nursing**Schedule Type:** Didactic, Lecture, Lecture/On-Line, On-Line**NU 810: Quantitative Methods****Credits:** 3**College:** Jefferson College of Nursing**Schedule Type:** Didactic, Lecture, On-Line

Nutrition (NUTR)

NUTR 590: Nutrition**Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, On-Line

Occupational Therapy (GR) (OCC)

OCC 610: Evolving Professional Seminar

This course guides students in their development as occupational therapists. Concepts related to professionalism, reflection and ethical practice, and collaboration are explored. Students are introduced to the program's leadership content and self-assessment as tools to facilitate the professional socialization process.

Credits: 1**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Hybrid**OCC 611: Foundations for Practice**

Overview of occupational therapy theory and domains of practice, including practice roles and functions, regulatory and legislative mandates and constraints, and historical and philosophical foundations

Credits: 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Hybrid, Hybrid/Occupational Therapy Gr, Lecture/Lab, Occupational Therapy Group Mtg**OCC 613: Functional Anatomy**

This course provides students with knowledge of structure and function of the human body and lays the foundation for an understanding of biomechanical and kinesiological concepts as they relate to human movement. Anatomy and movement will be discussed through stages of typical development as well as in common pathologies occurring through the lifespan.

Credits: 4**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Hybrid, Lecture/Lab**OCC 616: Assistive Tech. Design**

In this course students develop collaborative partnerships with clients and professionals in the evaluation, design and application of assistive technologies to facilitate occupational performance. Course activities include applying the principles of task analysis and universal design, critically analyzing evaluation data, and representing the client's perspective. The culminating course project assists students to examine their evolving understanding of occupation, adaptation, and participation.

Credits: 2**College:** Jefferson College of Rehabilitation Sciences**Prerequisites:** OCC 621 [Min Grade: C]**Schedule Type:** Hybrid**OCC 621: Occupational Competence**

This course examines the psychological, social, cultural, biological and developmental dimensions of occupational performance across the lifespan. Students learn to operationalize the profession's practice framework by practicing activity analysis in the context of occupational performance. Impact of physical, social and cultural environments on occupational choice is explored.

Credits: 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Hybrid, Hybrid/Occupational Therapy Gr, Lecture/Lab, Occupational Therapy Group Mtg**OCC 623: Applied Neuroanatomy**

In-depth exploration of the neuroanatomical, neurochemical, neurophysiological, cognitive, motor and sensorimotor basis of brain function as it relates to human performance. Identification of major structures and functions of normal and abnormal nervous systems. Development of an understanding of the neurobiological substrates of behavior and learning. Particular emphasis is placed on the relationship of neuroanatomy to human movement, problem solving and executive functions.

Credits: 4**College:** Jefferson College of Rehabilitation Sciences**Prerequisites:** OCC 613 [Min Grade: C]**Schedule Type:** Hybrid, Occupational Therapy Group Mtg**OCC 625: Clinical Skills A**

Course includes development of competencies in safe clinical practices. Topics such as critical values, mobility devices, body mechanics and basic transfer techniques, as well as documentation for skilled service are explored. Skills are practiced in hands-on laboratory environments and then applied through Level I Fieldwork.

Credits: 1**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Hybrid**OCC 626: Evidence Based Practice**

This course helps students to become skillful consumers of research for the purposes of evidence-building and assessing occupational therapy outcomes. Students are introduced to the research perspective and evidence-based practice as a basis for professional competence. Course experiences include examining research designs, research ethics, and developing and answering clinical practice questions.

Credits: 3**College:** Jefferson College of Rehabilitation Sciences**Prerequisites:** OCC 611 [Min Grade: C]**Schedule Type:** Lecture, Lecture/Lab, Occupational Therapy Group Mtg

OCC 628: Intro to Evaluation

This course helps students to select, critique and project evaluation clinical utility. Course content also addresses how evaluation leads to occupational therapy intervention and outcomes measurement.

Credits: 2

College: Jefferson College of Rehabilitation Sciences

Prerequisites: OCC 611 [Min Grade: C]

Schedule Type: Hybrid

OCC 632: Intro Crit Disability Studies

This course introduces Critical Disability Studies theories, frameworks, and ideas. Critical Disability Studies is a critical interdisciplinary field of study that is dedicated to the study of disability as a social, political, cultural, and historical phenomenon. Critical Disability Studies critiques ableism in culture and society and equips learners with tools to think about disability differently. The course particularly focuses on the relevance of Critical Disability Studies for current and future healthcare professionals, and the implications of Critical Disability Studies for current healthcare systems. Topics addressed will include the social model of disability, Mad Studies, the neurodiversity paradigm, the Disability Rights movement, accessibility, eugenics, and more. This is an interdisciplinary elective course that is open to graduate students in any program at Jefferson. Course materials will be multimedia and will include academic texts in addition to films, blogs, and social media. Learners will experiment with creating accessibility in the classroom and in their course assignments. The synchronous class discussions will serve as an opportunity to discuss disability studies concepts, learn from peers, and practice creating collective access. The course is designed with transformative learning principles in mind and aims to enable students to be agents of change in addressing ableism in their professions and communities.

Credits: 3

College: Jefferson College of Rehabilitation Sciences

Schedule Type: On-Line

OCC 635: Clinical Skills B

Course includes development of competencies in safe clinical practices. Topics such as advanced transfer skills, wheelchair/cushion fitting, and amputation care are explored. Skills are practiced in hands-on laboratory environments and then applied through Level I Fieldwork.

Credits: 2

College: Jefferson College of Rehabilitation Sciences

Prerequisites: OCC 625 [Min Grade: C]

Schedule Type: Hybrid

OCC 645: Clinical Skills C

Course includes development of competencies in safe clinical practices for physical agent modalities (PAMs), fabrication and application of splinting devices, and wound care. Skills are practiced in hands-on laboratory environments and then applied through Level I Fieldwork.

Credits: 1

College: Jefferson College of Rehabilitation Sciences

Prerequisites: OCC 613 [Min Grade: C]

Schedule Type: Hybrid

OCC 735: Level I Fieldwork A

The overall purpose of the fieldwork experience is to provide students with exposure to clinical practice through directed observation and active participation in selected aspects of the occupational therapy process. The opportunity to work with clients and therapists helps students to examine their reactions to clients, themselves and other personnel while integrating academic learning with clinical practice. The focus of the fieldwork experience will be the application of knowledge and skills related to the psychological and social factors that influence engagement in occupation.

Credits: 1

College: Jefferson College of Rehabilitation Sciences

Prerequisites: OCC 611 and OCC 621 [Min Grade: C]

Schedule Type: Hybrid, Rotation

OCC 738: Psychosocial Interventions

Credits: 5

College: Jefferson College of Rehabilitation Sciences

Prerequisites: OCC 611 and OCC 621 and OCC 623 [Min Grade: C]

Schedule Type: Hybrid, Occupational Therapy Group Mtg

OCC 741: Interpersonal Relations&Groups

Interpersonal skills and communication are critical for building effective professional relationships. Students explore the dynamics of collaboration including their own communication styles and how to enhance therapeutic use of self as an intervention tool. Designing occupation-based groups for therapeutic intervention will be explored, as will dynamics of implementing group strategies for education and/or advocacy.

Credits: 3

College: Jefferson College of Rehabilitation Sciences

Prerequisites: OCC 611 and OCC 621 [Min Grade: C]

Schedule Type: Hybrid, Occupational Therapy Group Mtg

OCC 745: Level I Fieldwork B

The overall purpose of the fieldwork experience is to provide students with exposure to clinical practice through directed observation and active participation in selected aspects of the occupational therapy process. The opportunity to work with clients and therapists helps students to examine their reactions to clients, themselves and other personnel while integrating academic learning with clinical practice. The focus of the fieldwork experience will be the application of knowledge and skills related to clinical practice in adult physical disabilities.

Credits: 1

College: Jefferson College of Rehabilitation Sciences

Prerequisites: OCC 621 and OCC 623 and OCC 625 and OCC 635 [Min Grade: C]

Schedule Type: Hybrid, Hybrid Rotation, Rotation

OCC 746: Psychosocial Interventions

Occupational therapy assessment and intervention approaches as they apply to individuals whose lives have been affected by mental health challenges across practice settings is explored. Students link theory to an in-depth analysis of the psychological and social factors that influence the health and participation of individuals whose lives have been affected by psychiatric illness, developmental disability, and/or trauma. Course content incorporates case management, group and individual intervention methods, documentation strategies, and client and caregiver teaching. Prerequisites: OCC-611 OCC-621 OCC-623

Credits: 4

College: Jefferson College of Rehabilitation Sciences

Prerequisites: OCC 621 and OCC 623 [Min Grade: C]

Schedule Type: Lecture, Lecture/Lab, Occupational Therapy Group Mtg

OCC 748: Asses. & Intervention: Adults

This course examines occupational therapy assessment and intervention approaches for adults experiencing physiological, musculoskeletal, or neurological impairments, or other medical conditions that impact function, health and participation. Learning activities, designed to promote clinical reasoning and collaborative team skills, help students to develop a repertoire of strategies to assess and analyze the adult's occupational performance in context, establish goals appropriate to the individual and practice setting, and design intervention plans based on a variety of theoretical perspectives.

Credits: 5**College:** Jefferson College of Rehabilitation Sciences**Prerequisites:** OCC 621 and OCC 623 and OCC 625 [Min Grade: C]**Schedule Type:** Hybrid, Hybrid/Occupational Therapy Gr, Lecture/Lab, Occupational Therapy Group Mtg**OCC 749: Children and Youth A**

This course examines occupational therapy assessment and intervention approaches for children and youth whose lives have been affected by cognitive, sensory processing and psychosocial conditions. Major theories of typical and atypical childhood development are explored through an occupational therapy perspective. Learning activities, designed to promote clinical reasoning and collaborative team skills, help students to develop a repertoire of strategies to assess and analyze the child's occupational performance in context, establish goals appropriate to the individual and practice setting, and design intervention plans based on a variety of theoretical perspectives.

Credits: 3**College:** Jefferson College of Rehabilitation Sciences**Prerequisites:** OCC 613 and OCC 621 and OCC 623 [Min Grade: C]**Schedule Type:** Hybrid, Occupational Therapy Group Mtg**OCC 751: Professional Issues and Trends**

This course examines major issues and trends affecting occupational therapy service delivery in today's practice environment. Through course discussion and activities students demonstrate an understanding of management functions, supervision and role delineation, regulations, reimbursement, advocacy, and ethics.

Credits: 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Hybrid**OCC 754: Envir Dimensions of Occupation**

This course provides an in-depth exploration of the physical, cognitive, psychological and social dimensions of the environment. The impact of the environment on behavior and the individual's ability to mount an adaptive response will be examined. Students will demonstrate an understanding of the historical and theoretical basis for physical and social adaptations.

Credits: 3**College:** Jefferson College of Rehabilitation Sciences**Prerequisites:** OCC 616 and OCC 621 [Min Grade: C]**Schedule Type:** Hybrid, Lecture/Lab**OCC 755: Level I fieldwork C**

The overall purpose of the fieldwork experience is to provide students with exposure to clinical practice through directed observation and active participation in selected aspects of the occupational therapy process. The opportunity to work with clients and therapists helps students to examine their reactions to clients, themselves and other personnel while integrating academic learning with clinical practice. The focus of the fieldwork experience will be the application of knowledge and skills related to clinical practice with children and youth.

Credits: 1**College:** Jefferson College of Rehabilitation Sciences**Prerequisites:** OCC 621 and OCC 623 and OCC 625 and OCC 635 [Min Grade: C]**Schedule Type:** Hybrid, On-Line, Rotation**OCC 757: Innovative Prac in Oc Therapy**

This course provides an overview of emerging practice areas in occupational therapy. Students engage in program development to meet the changing political, social and health needs of society. The interrelationships of person, environment and occupation within communities and populations is examined. Students collaborate with stakeholders including local agency staff and consumers to identify and develop potential client-centered and evidence-based programs.

Credits: 3**College:** Jefferson College of Rehabilitation Sciences**Prerequisites:** (OCC 746 and OCC 748) or (OCC 746 and OCC 749) or (OCC 748 and OCC 749) [Min Grade: C]**Schedule Type:** Hybrid**OCC 758: Assessment & Intervn****Credits:** 5**College:** Jefferson College of Rehabilitation Sciences**Prerequisites:** OCC 613 and OCC 621 and OCC 623 [Min Grade: C]**Schedule Type:** Hybrid, Occupational Therapy Group Mtg**OCC 759: Children and Youth B**

This course examines occupational therapy assessment and intervention approaches for children and youth whose lives have been affected by sensorimotor, neuromotor and biomechanical conditions. Major theories of typical and atypical childhood development are explored through an occupational therapy perspective. Learning activities, designed to promote clinical reasoning and collaborative team skills, help students to develop a repertoire of strategies to assess and analyze the child's occupational performance in context, establish goals appropriate to the individual and practice setting, and design intervention plans based on a variety of theoretical perspectives.

Prerequisite: OCC 613, OCC 621, OCC 623**Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Prerequisites:** OCC 613 and OCC 621 and OCC 623 and OCC 749 [Min Grade: C]**Schedule Type:** Hybrid, Occupational Therapy Group Mtg

OCC 764: Spec Prac: Upper Extr Rehab

Students learn the clinical reasoning process that guides occupational therapy upper extremity rehabilitation with a focus on assessment, goal setting, treatment planning and documentation strategies. The practical, philosophical and theoretical bases for intervention are reviewed for the following advanced practice techniques: physical agent modalities (PAMs), kinesiotaping, joint mobilization, static and dynamic splinting, post-surgical techniques, and upper quadrant interventions. The need for advanced certification as well as parameters for referral to and/or collaboration with other disciplines will be explored.

Credits: 2

College: Jefferson College of Rehabilitation Sciences

Prerequisites: OCC 645 and OCC 748 [Min Grade: C]

Schedule Type: Lab, Lecture, Occupational Therapy Group Mtg

OCC 765: Clinical Applications

Credits: 1

College: Jefferson College of Rehabilitation Sciences

Prerequisites: OCC 621 and OCC 625 [Min Grade: C]

Schedule Type: Hybrid

OCC 766: Older Adults:Enabling Partic

This course provides an in-depth analysis of the impact of aging on health, well-being, and participation in older adults. Impact of normal aging, changing health status, role transition, memory and life review, retirement/leisure pursuits, wellness, and end of life issues are explored. Consultative models and practice domain challenges/ opportunities are reviewed.

Credits: 2

College: Jefferson College of Rehabilitation Sciences

Prerequisites: OCC 611 and OCC 621 and OCC 623 [Min Grade: C]

Schedule Type: Hybrid, Lecture/Lab

OCC 767: Critical Inquiry I

In this course series students will participate in a supervised research experience to deepen critical inquiry skills. As future evidence-based practitioners, this will support the student's ability to meaningfully integrate empirical evidence into practice. This course is the first of two; the second course culminates in a presentation for a selected audience.

Credits: 2

College: Jefferson College of Rehabilitation Sciences

Prerequisites: OCC 626 [Min Grade: C]

Schedule Type: Hybrid

OCC 768: Spec Prac: Upper Extr Rehab

Credits: 3

College: Jefferson College of Rehabilitation Sciences

Prerequisites: OCC 645 and OCC 748 [Min Grade: C]

Schedule Type: Lecture, Occupational Therapy Group Mtg

OCC 769: Critical Inquiry II

This is the second of two courses designed to deepen students' research skills. Students will analyze and synthesize the results of their respective research projects. This course culminates in a presentation for a selected audience.

Credits: 2

College: Jefferson College of Rehabilitation Sciences

Prerequisites: OCC 626 and OCC 767 [Min Grade: C]

Schedule Type: Hybrid, Lecture/Lab

OCC 770: Practice Platform Seminar

This course supports students in their final culminating project of the academic program, presentation of the Master's Portfolio. During this capstone course, students describe the development of their own critical thinking, assess current practice knowledge and skills, and identify constructs for their future professional practice. Through classroom and online learning activities that involve self-reflection on collected experiences over the program, students are guided in their professional socialization.

Credits: 2

College: Jefferson College of Rehabilitation Sciences

Prerequisites: OCC 626 and OCC 738 and OCC 748 and OCC 758 [Min Grade: C]

Schedule Type: Hybrid

OCC 771: Level II Fieldwork A

Credits: 3

College: Jefferson College of Rehabilitation Sciences

Prerequisites: OCC 738 and OCC 748 and OCC 758 [Min Grade: C]

Schedule Type: On-Line, Rotation

OCC 775: Clinical Reasoning I

Credits: 1.5

College: Jefferson College of Rehabilitation Sciences

Schedule Type: On-Line

OCC 776: Level II Fieldwork A Part 1

The fieldwork component of the curriculum provides students with an in-depth experience in delivering occupational therapy services to clients in practice settings. Students integrate knowledge and skills gained through classroom, experiential, and self-directed learning experiences with applied clinical reasoning assignments to achieve entry-level practice competence by the end of the fieldwork experience. Students complete two, full time, 12- week fieldwork placements following didactic coursework. This is Part 1 of a 12-week experience; students must complete Part 2 as well. Successful completion of the fieldwork education component is a requirement for graduation from the Occupational Therapy Program.

Credits: 2

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Hybrid Rotation, On-Line

OCC 777: Level II Fieldwork A Part 2

The fieldwork component of the curriculum provides students with an in-depth experience in delivering occupational therapy services to clients in practice settings. Students integrate knowledge and skills gained through classroom, experiential, and self-directed learning experiences with applied clinical reasoning assignments to achieve entry-level practice competence by the end of the fieldwork experience. Students complete two, full time, 12- week fieldwork placements following didactic coursework. Successful completion of the fieldwork education component is a requirement for graduation from the Occupational Therapy Program. This is Part 2 of a 12-week experience.

Credits: 3

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Hybrid Rotation, On-Line, Online/Rotation, Rotation

OCC 778: Level II Fieldwork A

The fieldwork component of the curriculum provides students with an in-depth experience in delivering occupational therapy services to clients in practice settings. Students integrate knowledge and skills gained through classroom, experiential, and self-directed learning experiences with applied clinical reasoning assignments to achieve entry-level practice competence by the end of the fieldwork experience. Students complete two, full time, 12- week fieldwork placements following didactic coursework. Successful completion of the fieldwork education component is a requirement for graduation from the Occupational Therapy Program.

Credits: 9**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Hybrid Rotation, On-Line, Online/Rotation, Rotation**OCC 779: Level II Fieldwork B**

The fieldwork component of the curriculum provides students with an in-depth experience in delivering occupational therapy services to clients in practice settings. Students integrate knowledge and skills gained through classroom, experiential, and self-directed learning experiences with applied clinical reasoning assignments to achieve entry-level practice competence by the end of the fieldwork experience. Students complete two, full time, 12- week fieldwork placements following didactic coursework. Successful completion of the fieldwork education component is a requirement for graduation from the Occupational Therapy Program.

Credits: 6,9**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Hybrid Rotation, On-Line, Online/Rotation, Rotation**OCC 781: Level II Fieldwork B**

The fieldwork component of the curriculum provides students with an in-depth experience in the practice and application of the occupational therapy process. Students will apply the knowledge, skills and clinical reasoning gained through classroom, experiential and self-directed learning experiences to achieve entry-level practice competence. Students complete two full time, 12-week fieldwork placements following successful completion of assessment and intervention coursework. Successful completion of the fieldwork education component is a requirement for graduation from the Occupational Therapy Program.

Credits: 3**College:** Jefferson College of Rehabilitation Sciences**Prerequisites:** OCC 738 and OCC 748 and OCC 758 [Min Grade: C]**Schedule Type:** On-Line, Rotation**OCC 784: Mastery**

This course requires the integration of previously acquired knowledge and clinical skills. Through case discussion and self-testing, students review the domain and process of occupational therapy practice, incorporating clinical reasoning to inform decisions across the practice continuum.

Credits: 2**College:** Jefferson College of Rehabilitation Sciences**Prerequisites:** OCC 746 and OCC 748 and OCC 749 and OCC 759 and OCC 766 [Min Grade: C]**Schedule Type:** Hybrid**OCC 785: Clinical Reasoning II**

This course is conducted completely on-line using distance teaching methods. Content includes the analysis of critical thinking constructs that inform daily practice decisions. Students will continue to develop and utilize clinical reasoning concepts to reflect on practice decisions implemented during Level II Fieldwork. Students will use literature and evidence-based studies to validate and/or reframe client problems and therapy intervention. Emphasis will be placed on articulating the clinical reasoning process with other healthcare professionals in designated work environments.

Credits: 1.5**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** On-Line**OCC 797: Special Topics****Credits:** 1**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** By Appointment, Lecture, On-Line, Rotation

Occupational Therapy (OT)

OT 502: Applied Anatomy & Kinesiology**Credits:** 4**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lab, Lecture, Lecture/Lab**OT 508: Neuroscience Foundations of OT****Credits:** 4**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture**OT 511: Health & Health Conditions****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture, On-Line**OT 521: Founda for Occ Ctrd Prac I****Credits:** 2**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lab**OT 522: Found of Occupation- Practice****Credits:** 2**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lab**OT 536: Occ Through the Life Span****Credits:** 5**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Clinical, Lecture**OT 540: Domains OT Practice: Fieldwork****Credits:** 2**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture, Lecture/On-Line**OT 541: Occ Analysis/Eval Field Lvl I****Credits:** 2**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Clinical**OT 555: Older Adults/Liv Environ****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture

OT 556: Dementia and Caregiving**Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture, On-Line**OT 557: Evaluation Process****Credits:** 4**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture, Lecture/Lab, On-Line**OT 560: Environmental Competence****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture, On-Line**OT 561: Environmental Competence Lab****Credits:** 1**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lab**OT 562: Environmental Comp in Action****Credits:** 1**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Clinical, Lecture, On-Line, Small Group**OT 568: Therapeut Communications****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture**OT 577: Histor Analysis-Theory****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture, On-Line, Small Group**OT 578: Evidence-Based Practice I****Credits:** 1**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture, On-Line**OT 579: Evidence Based Practice II****Credits:** 1**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture, On-Line**OT 600: OT Professional Seminar****Credits:** 1**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture, Lecture/On-Line, On-Line, Seminar, Small Group**OT 603: Research Design****Credits:** 3,4**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture, On-Line**OT 627: Program Design/Evaluat****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Prerequisites:** OT 603**Schedule Type:** Lecture, On-Line, Seminar**OT 631: Foc on Child in Early Int & Sc****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Seminar**OT 632: Intro Critic Disability Studies**

This course introduces Critical Disability Studies theories, frameworks, and ideas. Critical Disability Studies is a critical interdisciplinary field of study that is dedicated to the study of disability as a social, political, cultural, and historical phenomenon. Critical Disability Studies critiques ableism in culture and society and equips learners with tools to think about disability differently. The course particularly focuses on the relevance of Critical Disability Studies for current and future healthcare professionals, and the implications of Critical Disability Studies for current healthcare systems. Topics addressed will include the social model of disability, Mad Studies, the neurodiversity paradigm, the Disability Rights movement, accessibility, eugenics, and more. This is an interdisciplinary elective course that is open to graduate students in any program at Jefferson. Course materials will be multimedia and will include academic texts in addition to films, blogs, and social media. Learners will experiment with creating accessibility in the classroom and in their course assignments. The synchronous class discussions will serve as an opportunity to discuss disability studies concepts, learn from peers, and practice creating collective access. The course is designed with transformative learning principles in mind and aims to enable students to be agents of change in addressing ableism in their professions and communities

Credits: 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture, Lecture/On-Line, On-Line**OT 640: Inter: Enhn Hmn Per: Fldwrk L1****Credits:** 2**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture**OT 641: Inter: Enhn Soc Prt: Fldwrk L1****Credits:** 2**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture**OT 652: Inter: Enhan Hum Perf Prac/Lab****Credits:** 5**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture/Lab**OT 658: Inter: Enhan Soc Partici / Lab****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture/Lab**OT 660: Inter: Support Learning Occup****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture, On-Line**OT 667: Health Services Administration****Credits:** 2**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture**OT 670: MS Research Project****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Prerequisites:** OT 603 and OT 482**Schedule Type:** Lecture, On-Line, Reseach, Seminar**OT 680: Leading Edge OT Practice****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** On-Line

OT 681: Advanced Prac in OT**Credits:** 6**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** On-Line**OT 682: Clinical Leadership****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Prerequisites:** OT 482**Schedule Type:** Lecture, On-Line, Seminar**OT 689: Innovations in OT Therapy Prac****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture, On-Line**OT 690: Advanced OT Therapy Skills****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture, On-Line**OT 691: Professional Leadership****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture, On-Line**OT 699: Independent Study****Credits:** 0.5-5**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Independent Study, Lab, Lecture, Lecture/Lab, Lecture/On-Line, On-Line, Reseach, Research II, Seminar, Tutorial**OT 700: Develop OTD Practice Toolkit****Credits:** 1**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Clinical, Lecture, Lecture/On-Line, On-Line, Seminar, Tutorial**OT 701: Expl of Doctoral Level OT Prac****Credits:** 1**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Clinical, Lecture, On-Line, Seminar**OT 702: OTD Leader: Nation&GlobalPersp****Credits:** 1**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Clinical, Lecture, On-Line, Seminar**OT 703: ProfessionalPracticeInquiryOT****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Exam, Lecture, Seminar**OT 704A: Evidence-Based Prac & DDDMP I****Credits:** 2**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** On-Line**OT 704B: Evidence-Based Prac & DDDMP II****Credits:** 2**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** On-Line**OT 705: AdvEv Based Practice OTD Stude****Credits:** 4**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture, On-Line, Seminar**OT 706: VisPrac:CreateMeasureOutcomes****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture, On-Line**OT 707: OTD Capstone:Prep for Exp/Proj****Credits:** 2**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** On-Line, Seminar**OT 708A: Doctoral Residency A****Credits:** 6**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** On-Line**OT 708B: Doctoral Residency B****Credits:** 6**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** On-Line**OT 709A: Colab For Success:MentOTDProcA****Credits:** 2**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** On-Line**OT 709B: Colab For Success:MentOTDProcB****Credits:** 2**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** On-Line**OT 710A: Refl&Plan:Outcomes of DocRes A****Credits:** 1**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** On-Line**OT 710B: Refl&Plan:Outcomes of DocRes B****Credits:** 2**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** On-Line**OT 711: OTD Portfolio: Plan & Pres****Credits:** 6**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** On-Line**OT 720: Doctoral Capstone Seminar A****Credits:** 12**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture/On-Line, Practicum**OT 721: Doctoral Capstone Seminar B****Credits:** 12**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture/On-Line, Practicum**OT 727: Visionary Prac Devel & Eval****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture, On-Line**OT 732: Contemp. Practice Concepts**

In this course students explore and apply contemporary practice concepts, language, and models to the practice of occupational therapy. Through a series of learning activities, students develop digital age information literacy to support scholarship and clinical reasoning development.

Credits: 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture, On-Line

OT 733: Research Mthds Clini Prac

Credits: 3

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Lecture

OT 734: Evidence Based Practice

This course helps students to become skillful consumers of research for the purposes of evidence-building and assessing outcomes of occupational therapy. Students are introduced to the research perspective and evidence-based practice as a basis for professional competence. Utilizing the critical appraisal process, students critique and analyze the literature to answer clinical practice questions. Course experiences include examining the basic research elements of single subject, experimental, quasi-experimental and qualitative research studies; considering ethical issues of research; developing and answering complex clinical questions; and planning, presenting and disseminating research findings.

Credits: 3

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Lecture/On-Line

OT 742: Neurocognitive Disorders

Credits: 3

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Lecture, On-Line

OT 743: Adv Conc Neuro disorder Care

Credits: 3

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Lecture, On-Line

OT 744: App Ev: Trting Neuro Dis in Co

Credits: 3

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Clinical, Lab, Lecture, On-Line

OT 751: Neuroscience Found for Pract

This course introduces the student to the specialization field of neuro-rehabilitation. A review of neuro-anatomy and neuro-pathology will re-introduce the students to the structure and function of the brain and spinal cord. Students will participate in active learning experiences, including participation in neuroscience brain laboratory activities; computer based learning activities, and case study analysis, to integrate knowledge of neuroscience as a foundation for neuro-rehabilitation. key concepts of neuro-plasticity are emphasized and evidence-based interventions are presented.

Credits: 3

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Lecture/On-Line, On-Line

OT 752: Neuropathology

Credits: 2

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Lecture/On-Line

OT 753: Neurorehabilitation I

Credits: 3

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Lecture/On-Line, On-Line

OT 754: Contemp Topics in Neurosci II

Credits: 3

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Lecture/On-Line, On-Line

OT 761: Autism- The State of the Field

Credits: 3

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Lecture, On-Line

OT 762: Assess Strat for Ind w Autism

Credits: 3

College: Jefferson College of Rehabilitation Sciences

Schedule Type: On-Line

OT 763: Lifespan Int Autism Prac Cont

Credits: 3

College: Jefferson College of Rehabilitation Sciences

Schedule Type: On-Line

OT 764: Autism: Treat Whole Per in Con

Credits: 3

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Lecture, On-Line

OT 765: Interprofessional Geriatric ed

Credits: 3

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Lecture, On-Line

OT 766: As & Int Strat for Indv w/ ASD

Credits: 3

College: Jefferson College of Rehabilitation Sciences

Schedule Type: On-Line

OT 770: KT to Promote Best Practices

Credits: 3

College: Jefferson College of Rehabilitation Sciences

Schedule Type: On-Line

OT 771: ASI Theor & Neuro Foundations

Credits: 3

College: Jefferson College of Rehabilitation Sciences

Schedule Type: On-Line, Seminar

OT 772: ASI Assess&DataTreatmentPlan

Credits: 3

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Lecture, On-Line, Seminar

OT 773: Implementing ASI: Intervention

Credits: 3

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Lecture, On-Line, Seminar

OT 774: Applying ASI in Context

Credits: 3

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Lecture, On-Line, Seminar

OT 778: Adv Evidence-Based Practice

Credits: 3

College: Jefferson College of Rehabilitation Sciences

Schedule Type: On-Line

OT 780: Fieldwork Level II A

Credits: 9

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Clinical, Lab, Seminar

OT 781: Fieldwork Level II B

Credits: 9

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Clinical

OT 782: Leadership: Moving Beyond Trad**Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** On-Line**OT 783: Bridging the Gaps****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** On-Line**OT 784: Teaching in the Digital Age****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** On-Line**OT 785: Advanced Curriculum Developmnt****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** On-Line**OT 786: Health Literacy****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** On-Line**OT 797: Cul Humil for Transf Hlth Care****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** On-Line**OT 798: Doctorate Seminar****Credits:** 1**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** On-Line**OT 799A: Exploratory Sem in Research****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** On-Line, Seminar**OT 799B: Mentored Seminar in Research****Credits:** 4**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** On-Line, Seminar**OT 800: Doctoral Fellowship****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Independent Study, On-Line**OT 801: Doctoral Capstone****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** On-Line**OT 803: Doctoral Inquiry Seminar****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture**OT 804: Adv. Professional Studies****Credits:** 1**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture/On-Line**OT 805: Doctoral Seminar****Credits:** 2**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture/On-Line**OT 806: Adv. Evidence-Based Practice**

In this course students will refine their skills for asking clinical questions, searching for, and critically appraising available evidence in order to form conclusions regarding best practice. Through in-depth exploration of the research process including an evaluation of research methodologies associated with hierarchies of evidence, students will formulate and answer questions about their own clinical practice.

Credits: 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture**OT 807: Interprofessional Partnerships**

In this course students will explore the dynamics involved with forming collaborative partnerships, working in teams, and expanding one's professional network. Through course readings, activities, and assignments completed in the student's work environment, students will develop skills in teamwork, consensus building, conflict management, negotiation, and consultation.

Credits: 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture**OT 808: Applied Leadership**

In this course students will explore leadership theories and the practice philosophies that are central to leadership effectiveness. Tools and strategies for evaluating and assessing leadership development, including personal leadership style and strengths, as well as best practices for developing leadership skills will be reviewed. Students will create a personal leadership development plan directed toward leadership and advocacy within their own practice settings or areas of interest.

Credits: 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture**OT 809: Planning the Doctoral Project****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture, Lecture/On-Line, On-Line**OT 810: Post Prof Doctoral Capstone****Credits:** 5**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture, Lecture/On-Line, On-Line, Reseach**OT 811: Educational Theory & Praticce**

This course provides an overview of the foundations and application of educational theory in teaching the adult learner. Teaching is considered for academic, practice, and continuing education environments. Evidence is considered from a variety of sources to develop effective educational processes and evaluation strategies. Students acquire knowledge and skills to apply scholarly evidence and knowledge of educational theory in a variety of environments with diverse adult learners.

Credits: 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture

OT 812: Tech & Educational Methods

This course provides an overview of theories and practices related to the use of current and emerging teaching and learning technologies. Students explore a variety of educational and instructional technologies. Educators in clinical, academic, professional, community, and other settings will gain skills in choosing appropriate technology supported by best pedagogical practices to enhance learning. Contextual issues such as financial, political, cultural, and access will be explored with consideration of the impact on availability and evaluation of instructional technologies. With the rapid rate of change in technology, strategies for considering and anticipating future technologies will be examined.

Credits: 3

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Lecture

OT 813: Accessible Living

Credits: 3

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Lecture

OT 814: Funding and Grantsmanship

Credits: 3

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Lecture

OT 815: Emer Pract & Entrepreneurship

Credits: 3

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Lecture

OT 816: Directed Inquiry Seminar

This seminar supports the student's independent exploration of topics related to clinical research, program development and/or evaluation. Students will augment their knowledge and skills in a particular topic area by exploring the literature, interviewing experts, and/or engaging in research and development activities. The actual content and method will be directed by the student and approved by the instructor. Students will demonstrate a series of competencies in an area of interest as the primary outcome of this course.

Credits: 3

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Lecture, On-Line

OT 870: Doctoral Capstone Project

Credits: 6

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Independent Study

OT 899: PP-OTD Transfer Elective Credit

Credits: 99

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Transfer Credit

Operational Excellence (OPX)

OPX 516: Teaching Operational Excellenc

Credits: 3

College: Jefferson College of Population Health

Schedule Type: On-Line

OPX 520: Change Management

Credits: 3

College: Jefferson College of Population Health

Schedule Type: On-Line

OPX 525: Executing Lean Improvements

Credits: 3

College: Jefferson College of Population Health

Schedule Type: Lecture, On-Line, Seminar

OPX 530: Appl Lead Strat for Eff Change

Credits: 3

College: Jefferson College of Population Health

Schedule Type: Lecture, On-Line

OPX 531: Evaluating Healthcare Orgs

Credits: 3

College: Jefferson College of Population Health

Schedule Type: On-Line

OPX 532: Project Management Essentials

Credits: 3

College: Jefferson College of Population Health

Schedule Type: Lecture, Lecture/On-Line, On-Line, Reseach, Seminar

OPX 535: Strategic Execution

Credits: 3

College: Jefferson College of Population Health

Schedule Type: Lecture, Lecture/On-Line, On-Line, Reseach, Seminar

OPX 540: Baldrige

Credits: 3

College: Jefferson College of Population Health

Schedule Type: On-Line

OPX 550: Fundamentals of 6 Sigma DMAIC

Credits: 3

College: Jefferson College of Population Health

Schedule Type: On-Line

OPX 551: Adv Funda of Six Sigma DMAIC

Credits: 3

College: Jefferson College of Population Health

Prerequisites: OPX 550

Schedule Type: Lecture, Lecture/On-Line, On-Line

OPX 650: Capstone

Credits: 3

College: Jefferson College of Population Health

Prerequisites: HPL 500 and HQS 500 and OPX 520 and OPX 532 and

OPX 531 and HPL 520 and OPX 525 and OPX 535 and HQS 512

Schedule Type: On-Line

OPX 655: Capstone Extension

Credits: 0

College: Jefferson College of Population Health

Prerequisites: OPX 650

Schedule Type: On-Line

OPX 700: Op Ex Professional Credits

Credits: 1-99

College: Jefferson College of Population Health

Schedule Type: Transfer Credit

PA Studies Foundation (PASF)

PASF 503: Evidence Based Medicine

This lecture/seminar course provides a foundation for clinical decision making that will be necessary for the future practice of the physician assistant student. The course teaches the basic principles of evidence-based medicine and how to apply them to clinical decision making. Students will learn basic principles of evidence-based medicine, how to formulate a good clinical question, how to access and search the literature, how to evaluate the validity of the literature and how to apply it to answer a clinical question. After the foundational principles have been presented through lectures, students will work in small groups to practice using case based scenarios to apply the principle that they have learned.

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture, Lecture/Phys Asst Group Mtg, Physician Asst Group Meeting

PASF 507: Advanced Anatomy

Credits: 5

College: Jefferson College of Health Professions

Schedule Type: Lab, Lecture

PASF 507A: Advanced Anatomy

This lecture and laboratory course will review basic histology along with the major anatomical structures of the human using a regional organization. Laboratory sessions utilizing microscopic examination, models and cadaver specimen dissection will augment lecture material.

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lab, Lecture, Lecture/Lab

PASF 507B: Advanced Anatomy

This lecture and laboratory course will review basic histology along with the major anatomical structures of the human using a regional organization. Laboratory sessions utilizing microscopic examination, models and cadaver specimen dissection will augment lecture material.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lab, Lecture, Lecture/Lab

PASF 510: Medical & Professional Ethics

Medical and Professional Ethics Understanding the philosophical principles related to biomedical ethics, patient-practitioner relationships and the role of the physician assistant provider within the health care system are the main topics encompassed in this lecture and discussion seminar course.

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture

PASF 511: Applied Behavioral Science

Applied Behavioral Science The topics of developmental psychology, abnormal psychology, human sexuality, stress responses, behaviors related to psychological health and illness and the diagnosis and management of common psychological disorders are the focus of this lecture course.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

PASF 513: Medical Pathophysiology

This lecture course is designed to teach the principles of human medical physiology along with the physiological mechanisms of common disease states.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

PASF 521: Med Genetics & Microbiology

Medical Genetics and Microbiology This lecture course presents current concepts and issues in medical genetics, immunology and microbiology. It focuses on diseases of genetic origin, the function of the immune system and emerging trends in disorders caused by microorganisms.

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture

PASF 522: Medicine I

This first of a three-semester lecture-based course is designed to provide students with the medical and scientific concepts needed to practice medicine to include physiology, pathophysiology, clinical presentations of disease states, diagnostics studies, and treatment approaches.

Credits: 7

College: Jefferson College of Health Professions

Schedule Type: Lecture

PASF 524: Patient Care & Clin Reasoning I

This is the first of a three-semester lecture, skills, and clinical reasoning laboratory-based course designed to provide students with the communication, humanistic, medical history, physical examination, and clinical reasoning skills needed to practice medicine.

Credits: 5

College: Jefferson College of Health Professions

Schedule Type: Lecture

PASF 526: Principles of PA Practice I

In this first lecture-based course of a three-semester series, you will learn about many components and aspects that embody the art of the practice of medicine. It also includes exploring those areas where the work of a PA intersects with ethics, evidence-based medicine, medical research, behavioral medicine, health care systems, and policy and public health.

Credits: 4

College: Jefferson College of Health Professions

Schedule Type: Lecture

Pathology & Cell Biol (JCLS) (PA)

PA 510: Concepts-Cell Biology

Credits: 4

College: Jefferson College of Life Sciences

Schedule Type: Lecture

PA 570: Pathologic Asp of Diseases

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lecture

PA 610: Pathology

Credits: 9

College: Jefferson College of Life Sciences

Schedule Type: Lecture

PA 611: Adv Topics-Cell Biology

Credits: 4

College: Jefferson College of Life Sciences

Schedule Type: Lecture

PA 710: Seminar

Credits: 1

College: Jefferson College of Life Sciences

Schedule Type: Seminar

PA 720: Seminar

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Seminar

Perfusion (PER)

PER 500: Perfusion Technology I

Credits: 4

College: Institute for Emerging Health Professions

Schedule Type: Lecture

PER 510: Human Physiology

Credits: 4

College: Institute for Emerging Health Professions

Schedule Type: Lecture

PER 520: CV Anatomy

Credits: 3

College: Institute for Emerging Health Professions

Schedule Type: Lecture

PER 530: Medical Ethics

Credits: 2

College: Institute for Emerging Health Professions

Schedule Type: Lecture, On-Line

PER 540: Pathophysiology

Credits: 3

College: Institute for Emerging Health Professions

Schedule Type: Lecture

PER 550: Perfusion Basic Science Review

Credits: 2

College: Institute for Emerging Health Professions

Schedule Type: Lecture, On-Line

PER 600: Perfusion Technology II

Credits: 4

College: Institute for Emerging Health Professions

Schedule Type: Lecture

PER 610: Human Physiology II

Credits: 4

College: Institute for Emerging Health Professions

Schedule Type: Lecture

PER 620: Pharmacology for Perfusion

Credits: 3

College: Institute for Emerging Health Professions

Schedule Type: Lecture

PER 640: Applications of ECMO & VAD

Credits: 1

College: Institute for Emerging Health Professions

Schedule Type: Clinical, Lecture, Lecture/Lab, On-Line

PER 650: Organizational Leadership

Credits: 3

College: Institute for Emerging Health Professions

Schedule Type: Lecture/On-Line, On-Line

PER 660: Foundation/Biostatistical Methods

Credits: 3

College: Institute for Emerging Health Professions

Schedule Type: On-Line

PER 670: Applied Research Des & Methods

Credits: 3

College: Institute for Emerging Health Professions

Schedule Type: On-Line

PER 690: Clin App in Perfusion I

Credits: 3

College: Institute for Emerging Health Professions

Schedule Type: Clinical, Reseach

PER 691: Clin Application Perfusion II

Credits: 4

College: Institute for Emerging Health Professions

Schedule Type: Clinical, Lecture

PER 692: Clinical App in Perfusion III

Credits: 4,12

College: Institute for Emerging Health Professions

Schedule Type: Clinical

PER 693: Clin App in Perfusion

Credits: 12,16

College: Institute for Emerging Health Professions

Schedule Type: Clinical, Lecture, Seminar

PER 694: Clin Application Perfusion V

Credits: 12,16

College: Institute for Emerging Health Professions

Schedule Type: Clinical, Lecture

PER 700: Perfusion Capstone Project

Credits: 3

College: Institute for Emerging Health Professions

Schedule Type: On-Line

Pharmaceutical Sciences (PSCI)

PSCI 701: PharmaceuticalSciences Seminar

Credits: 1

College: Jefferson College of Pharmacy

Schedule Type: Didactic, Lecture, Lecture/On-Line, On-Line

PSCI 702: Research Foundation & Ethics

Credits: 1

College: Jefferson College of Pharmacy

Schedule Type: Didactic, Lecture, Lecture/On-Line, On-Line

PSCI 703: PharmaceuticalSciencesRotation

Credits: 1

College: Jefferson College of Pharmacy

Schedule Type: Lab, Lecture/Lab

PSCI 704: Molecular Pharm Sciences

Credits: 3

College: Jefferson College of Pharmacy

Schedule Type: Lecture, Lecture/On-Line, On-Line

PSCI 705: Biological Pharm Sciences**Credits:** 3**College:** Jefferson College of Pharmacy**Schedule Type:** Didactic, Lecture, Lecture/On-Line, On-Line**PSCI 706: Spec Techniq in Pharm Sciences****Credits:** 1-2**College:** Jefferson College of Pharmacy**Schedule Type:** Lab**PSCI 707: Drug Discovery****Credits:** 2**College:** Jefferson College of Pharmacy**Schedule Type:** Didactic, Lecture, Lecture/On-Line, On-Line**PSCI 708: Pharma Biotech in Drug Develop****Credits:** 2**College:** Jefferson College of Pharmacy**Schedule Type:** Didactic, Lecture, Lecture/On-Line, On-Line**PSCI 709: Scientific Writing****Credits:** 2**College:** Jefferson College of Pharmacy**Schedule Type:** Lecture, Lecture/On-Line, On-Line**PSCI 711: Pharmacogenomics****Credits:** 2**College:** Jefferson College of Pharmacy**Schedule Type:** Lecture, Lecture/On-Line, On-Line**PSCI 712: Medicinal Cannabis****Credits:** 2**College:** Jefferson College of Pharmacy**Schedule Type:** Lecture, Lecture/On-Line, On-Line**PSCI 714: Intro to Nuclear Pharmacy****Credits:** 2**College:** Jefferson College of Pharmacy**Schedule Type:** Lecture, Lecture/On-Line, On-Line**PSCI 715: Advanced Drug Metabolism****Credits:** 2**College:** Jefferson College of Pharmacy**Schedule Type:** Lecture, Lecture/On-Line, On-Line**PSCI 798: Pharmaceutical Sciences Pract****Credits:** 1-6**College:** Jefferson College of Pharmacy**Schedule Type:** Lab, Reseach**PSCI 799: Pharmaceutical Sciences Resrch****Credits:** 1-6**College:** Jefferson College of Pharmacy**Schedule Type:** Lab, Reseach

Pharmacology (JCLS) (PR)

PR 500: Pharmacology**Credits:** 10**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture/Lab**PR 505: Environmental Toxicology****Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture, On-Line, Seminar**PR 522: General Pharmacology**

This course is an introduction to the basic principles of pharmacology as illustrated by a selection of major drug classes currently in use. Students will learn basic terminology and study selected classes of drugs. Emphasis will be on the mechanisms of action of the drugs. The mechanisms of drug action and how this allows understanding of therapeutic application and adverse effects will be emphasized. The clinical uses of medications will be discussed to establish context and relevance. This course is intended for graduate students in the biomedical sciences (MS, PhD) and is not for students in the healthcare professions.

Credits: 3**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture**PR 525: Princ-Clin Pharmacology****Credits:** 2-3**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture, On-Line**PR 526: Pharmacogenomics****Credits:** 2**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture**PR 540: Intr Struct Bio & Bioinf****Credits:** 2**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture**PR 601: Pre-Entry Rotation****Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Reseach**PR 610: Colloq of Cell Calcium****Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture**PR 612: Spec Topics-Pharmacol****Credits:** 2**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture**PR 613: Macromolecular Structure****Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture, On-Line**PR 615: Spec Topics-Cell Regul****Credits:** 2**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture**PR 618: Spec Topics-Struct Biol****Credits:** 2**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture**PR 621: Colloquium-Eicosanoids****Credits:** 2**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture

PR 625: In Vivo Pharm: AnimalModelsDis

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lecture/Lab

PR 630: General Toxicology

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lecture

PR 631: Neuropsychopharmacology

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Lecture

PR 632: Metabol-Foreign Compound

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lecture

PR 635: Clin Pharmacotoxicology

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lecture

PR 636: Experimental Therapeutics

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lecture

PR 650: Research Rotation II

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Reseach

PR 660: Research Rotation

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Reseach

PR 670: Biotechnology

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lecture

PR 680: Molecular Pharmacology

Credits: 3

College: Jefferson College of Life Sciences

Prerequisites: GC 550

Schedule Type: Lecture

PR 690: Pharm-Centr Nerv Syst

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Lecture

PR 699: Independent Study

Credits: 1-4

College: Jefferson College of Life Sciences

Schedule Type: Reseach

PR 710: Seminar

Credits: 1

College: Jefferson College of Life Sciences

Schedule Type: Seminar

PR 720: Seminar

Credits: 1

College: Jefferson College of Life Sciences

Schedule Type: Reseach, Seminar

PR 730: Seminar

Credits: 1

College: Jefferson College of Life Sciences

Schedule Type: Seminar

PR 760: Case Studies-Clin Pharm

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Lecture

PR 810: Clerkship - MSPR

Credits: 1-6

College: Jefferson College of Life Sciences

Schedule Type: Clinical, Independent Study

PR 820: Master's Clerkship-PR

Credits: 1-6

College: Jefferson College of Life Sciences

Schedule Type: Reseach

PR 830: Clerkship - MSPR

Credits: 1-6

College: Jefferson College of Life Sciences

Schedule Type: Clinical, Independent Study, Reseach

PR 840: Capstone Project

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Reseach

PR 870: Research - MSPR

Credits: 1-6

College: Jefferson College of Life Sciences

Prerequisites: PR 522 and PR 525

Schedule Type: Reseach

PR 880: Master's Research-PR

Credits: 1-6

College: Jefferson College of Life Sciences

Prerequisites: PR 522 and PR 525

Schedule Type: Reseach

PR 890: Research - MSPR

Credits: 1-6

College: Jefferson College of Life Sciences

Prerequisites: PR 522 and PR 525

Schedule Type: Reseach

Pharmacology (MD) (PHAR) Pharmacy (JCP) (PHRM)

PHRM 510: Biochemistry

Credits: 3

College: Jefferson College of Pharmacy

Schedule Type: Clinical, Didactic, Exam, Lecture, Lecture/On-Line, On-Line

PHRM 511: Biostatistics

Credits: 3

College: Jefferson College of Pharmacy

Schedule Type: Didactic, Lecture, On-Line, Seminar

PHRM 512: Preventive HC and SelfCare Iss

Credits: 2

College: Jefferson College of Pharmacy

Schedule Type: Clinical, Didactic, Exam, Lecture, Lecture/On-Line, On-Line

PHRM 513: Medicinal Chemistry**Credits:** 2**College:** Jefferson College of Pharmacy**Schedule Type:** Didactic, Exam, Lecture, On-Line, Seminar**PHRM 514: Pathophysiology I****Credits:** 3**College:** Jefferson College of Pharmacy**Schedule Type:** Clinical, Didactic, Exam, Lecture, Lecture/On-Line, On-Line**PHRM 515: Pathophysiology II****Credits:** 3**College:** Jefferson College of Pharmacy**Schedule Type:** Didactic, Exam, Lecture, On-Line, Seminar**PHRM 516: Pharmacy Practice I****Credits:** 1**College:** Jefferson College of Pharmacy**Schedule Type:** Clinical, Didactic, Lecture**PHRM 517: Pharmacy Practice II****Credits:** 1**College:** Jefferson College of Pharmacy**Schedule Type:** Didactic, Lecture, On-Line, Seminar**PHRM 519: Healthcare Delivery Systems****Credits:** 2**College:** Jefferson College of Pharmacy**Schedule Type:** Clinical, Didactic, Exam, Lecture, Lecture/On-Line, On-Line**PHRM 520: Molecular and Cell Biology****Credits:** 3**College:** Jefferson College of Pharmacy**Schedule Type:** Didactic, Exam, Lecture, On-Line, Seminar**PHRM 521: Pharmaceutical Calculations****Credits:** 2**College:** Jefferson College of Pharmacy**Schedule Type:** Clinical, Didactic, Exam, Lecture, Lecture/On-Line, On-Line, Seminar**PHRM 522: IPPE:HealthcareServiceLearning****Credits:** 1**College:** Jefferson College of Pharmacy**Schedule Type:** Clinical, Exam, Practicum**PHRM 523: IPPE: Community Pharmacy****Credits:** 1**College:** Jefferson College of Pharmacy**Schedule Type:** Clinical**PHRM 524: HlthcareComm & PatientCounsel****Credits:** 2**College:** Jefferson College of Pharmacy**Schedule Type:** Clinical, Didactic, Exam, Lecture/Lab**PHRM 525: Immunology****Credits:** 3**College:** Jefferson College of Pharmacy**Schedule Type:** Clinical, Didactic, Exam, Lecture, Lecture/Lab, Lecture/On-Line, On-Line**PHRM 526: PhysAssess & Clinical Skills****Credits:** 1**College:** Jefferson College of Pharmacy**Schedule Type:** Didactic, Exam, Lab, Lecture, On-Line, Seminar**PHRM 527: Drug Info & Literature Eval****Credits:** 3**College:** Jefferson College of Pharmacy**Schedule Type:** Clinical, Didactic, Exam, Lecture, On-Line**PHRM 528: IPPE: Hospital Pharmacy****Credits:** 1**College:** Jefferson College of Pharmacy**Schedule Type:** Clinical**PHRM 529: Medication Safety****Credits:** 2**College:** Jefferson College of Pharmacy**Schedule Type:** Clinical, Didactic, Exam, Lecture, Lecture/On-Line, On-Line**PHRM 530: Pharm and Drug Delivery Sys****Credits:** 3**College:** Jefferson College of Pharmacy**Schedule Type:** Clinical, Didactic, Exam, Lecture, Lecture/On-Line, On-Line**PHRM 531: Pharmaceutics Laboratory****Credits:** 1**College:** Jefferson College of Pharmacy**Schedule Type:** Exam, Lab**PHRM 532: Pharmacology I****Credits:** 3**College:** Jefferson College of Pharmacy**Schedule Type:** Clinical, Didactic, Lecture**PHRM 533: Pharm Management: Theory & App****Credits:** 3**College:** Jefferson College of Pharmacy**Schedule Type:** Clinical, Didactic, Lecture, Lecture/On-Line, On-Line**PHRM 534: Pharmacy Practice III****Credits:** 1**College:** Jefferson College of Pharmacy**Schedule Type:** Clinical, Didactic, Lecture**PHRM 535: Biopharm&PrinClinPharmacokinetics****Credits:** 3**College:** Jefferson College of Pharmacy**Schedule Type:** Didactic, Exam, Lecture, On-Line, Seminar**PHRM 536: Pharmacology II****Credits:** 3**College:** Jefferson College of Pharmacy**Schedule Type:** Didactic, Lecture**PHRM 537: IPPE: Ambulatory Care****Credits:** 1**College:** Jefferson College of Pharmacy**Schedule Type:** Clinical, Lecture**PHRM 538: Pharmacy Practice IV****Credits:** 1**College:** Jefferson College of Pharmacy**Schedule Type:** Lecture, On-Line, Seminar**PHRM 539: Pharmacology III****Credits:** 3**College:** Jefferson College of Pharmacy**Schedule Type:** Clinical, Didactic, Exam, Lecture, Lecture/On-Line, On-Line

PHRM 540: ClinDiagnosis/Pharmacotherapy1

Credits: 2

College: Jefferson College of Pharmacy

Schedule Type: Didactic, Lecture, Seminar

PHRM 541: ClinDiagnosis/PharmacotherapyII

Credits: 2

College: Jefferson College of Pharmacy

Schedule Type: Didactic, Lecture, Seminar

PHRM 542: Pharmacy Practice Lab I

Credits: 1

College: Jefferson College of Pharmacy

Schedule Type: Lab, On-Line

PHRM 543: ClinDiagnosis&Phrmcothrpy III

Credits: 3

College: Jefferson College of Pharmacy

Schedule Type: Clinical, Didactic, Lecture

PHRM 544: ClnclDiag&Phrmcotherapy IV

Credits: 3

College: Jefferson College of Pharmacy

Schedule Type: Clinical, Didactic, Exam, Lecture, Lecture/On-Line, On-Line

PHRM 545: Pharmacy Practice Lab II

Credits: 1

College: Jefferson College of Pharmacy

Schedule Type: Lab

PHRM 546: ClinDDX/Pharmacotherapy V

Credits: 3

College: Jefferson College of Pharmacy

Schedule Type: Didactic, Exam, Lecture, On-Line, Seminar

PHRM 547: ClinDDX/Pharmacotherapy VI

Credits: 3

College: Jefferson College of Pharmacy

Schedule Type: Didactic, Exam, Lecture, On-Line, Seminar

PHRM 548: Phrmcy Practice Lab III

Credits: 1

College: Jefferson College of Pharmacy

Schedule Type: Didactic, Lab, Lecture, On-Line

PHRM 549: Pharmacology I

Credits: 3

College: Jefferson College of Pharmacy

Schedule Type: Clinical, Didactic, Exam, Lecture, Lecture/On-Line, On-Line, Seminar

PHRM 550: Interprofessional Grand Rounds

Credits: 2

College: Jefferson College of Pharmacy

Schedule Type: Lecture, Lecture/On-Line, On-Line

PHRM 551: Pharmacoecon & Hlth Outcomes

Credits: 3

College: Jefferson College of Pharmacy

Schedule Type: Clinical, Didactic, Exam, Lecture, On-Line, Seminar

PHRM 552: Integrated Practice Apps

Credits: 1

College: Jefferson College of Pharmacy

Schedule Type: Didactic, On-Line, Practicum, Seminar

PHRM 553: Professional Seminar I

Credits: 2

College: Jefferson College of Pharmacy

Schedule Type: On-Line, Seminar

PHRM 554: ClinDiagnosis/Pharmacotherapy1

Credits: 2

College: Jefferson College of Pharmacy

Schedule Type: Clinical, Didactic, Exam, Lecture, On-Line, Small Group

PHRM 555: ClinDiagnosis/PharmacotherapyII

Credits: 2

College: Jefferson College of Pharmacy

Schedule Type: Clinical, Didactic, Exam, Lecture, On-Line, Small Group

PHRM 556: Pharmacology II

Credits: 3

College: Jefferson College of Pharmacy

Schedule Type: Clinical, Didactic, Exam, Lecture, On-Line, Small Group

PHRM 557: ClinDiag &Pharmacotherapy III

Credits: 3

College: Jefferson College of Pharmacy

Schedule Type: Clinical, Didactic, Exam, Lecture, Lecture/On-Line, On-Line, Seminar

PHRM 558: IPPE: Direct Inpatient Care

Credits: 2

College: Jefferson College of Pharmacy

Schedule Type: Clinical

PHRM 559: Intro to Pharm Practice Lab

Credits: 1

College: Jefferson College of Pharmacy

Schedule Type: Lab

PHRM 560: GlobHealth&EmergingInfDiseases

Credits: 2

College: Jefferson College of Pharmacy

Schedule Type: Lecture

PHRM 561: Creating Pharmacy Leaders

Credits: 2

College: Jefferson College of Pharmacy

Schedule Type: Didactic, Lecture, Seminar

PHRM 562: CardioVascularRelPrimaryLitRev

Credits: 3

College: Jefferson College of Pharmacy

Schedule Type: Lecture

PHRM 563: Women's Health

Credits: 3

College: Jefferson College of Pharmacy

Schedule Type: Lecture

PHRM 564: CurrTopics-Cardiovasc Disease

Credits: 3

College: Jefferson College of Pharmacy

Schedule Type: Lecture

PHRM 565: Pediatric Pharmacotherapy

Credits: 2

College: Jefferson College of Pharmacy

Schedule Type: Clinical, Didactic, Exam, Lecture, On-Line, Small Group

PHRM 566: Pharmacy Calculations

Credits: 2

College: Jefferson College of Pharmacy

Schedule Type: Independent Study, Lecture, On-Line, Seminar

PHRM 567: Advanced Pharmacology**Credits:** 2**College:** Jefferson College of Pharmacy**Schedule Type:** Lecture**PHRM 568: IPPE: Elective Site****Credits:** 2**College:** Jefferson College of Pharmacy**Schedule Type:** Clinical**PHRM 569: Psych of Scientific Thinking****Credits:** 3**College:** Jefferson College of Pharmacy**Schedule Type:** Lecture**PHRM 570: Critical Care Pharmacotherapy****Credits:** 2**College:** Jefferson College of Pharmacy**Schedule Type:** Lecture**PHRM 571: Diabetes Immersion****Credits:** 2**College:** Jefferson College of Pharmacy**Schedule Type:** Independent Study, Lecture, On-Line, Seminar**PHRM 572: Academic Pharmacy****Credits:** 2**College:** Jefferson College of Pharmacy**Schedule Type:** Lecture, Seminar**PHRM 573: Adv Inf Dis Pharmacotherapy****Credits:** 2**College:** Jefferson College of Pharmacy**Schedule Type:** Independent Study, Lecture, Seminar**PHRM 574: Pharmacogenomics****Credits:** 2**College:** Jefferson College of Pharmacy**Schedule Type:** Clinical, Didactic, Exam, Lecture, Lecture/On-Line, On-Line, Seminar**PHRM 575: Introduction Nuclear Pharmacy****Credits:** 2**College:** Jefferson College of Pharmacy**Schedule Type:** Clinical, Didactic, Exam, Lecture, Lecture/On-Line, On-Line, Seminar**PHRM 576: Intro Community Pharm Practice****Credits:** 2**College:** Jefferson College of Pharmacy**Schedule Type:** Clinical, Didactic, Exam, Lecture, On-Line, Seminar, Small Group**PHRM 577: Drug Discovery****Credits:** 2**College:** Jefferson College of Pharmacy**Schedule Type:** Clinical, Didactic, Exam, Lecture, Lecture/On-Line, On-Line, Seminar, Small Group**PHRM 578: Intro Org Devel & Leadership****Credits:** 2**College:** Jefferson College of Pharmacy**Schedule Type:** Clinical, Didactic, Lecture, Seminar**PHRM 579: SpecTop: Ambulatory Care Practice****Credits:** 2**College:** Jefferson College of Pharmacy**Schedule Type:** Clinical, Didactic, Lecture, Seminar**PHRM 580: Advanced Drug Metabolism****Credits:** 2**College:** Jefferson College of Pharmacy**Schedule Type:** Didactic, Lecture, Seminar**PHRM 581: Pharm Biotech Drug Development****Credits:** 2**College:** Jefferson College of Pharmacy**Schedule Type:** Didactic, Exam, Lecture, Lecture/On-Line, On-Line, Seminar**PHRM 582: Careers in the Pharm Industry****Credits:** 1**College:** Jefferson College of Pharmacy**Schedule Type:** Didactic, Lecture, On-Line**PHRM 583: Innovations in Community Pharm****Credits:** 2**College:** Jefferson College of Pharmacy**Schedule Type:** Lecture**PHRM 584: Student Pharm Enrichment 1****Credits:** 0.25**College:** Jefferson College of Pharmacy**Schedule Type:** Independent Study**PHRM 585: Student Pharm Enrichment 2****Credits:** 0.25**College:** Jefferson College of Pharmacy**Schedule Type:** Independent Study**PHRM 586: Student Pharm Enrichment 3****Credits:** 0.25**College:** Jefferson College of Pharmacy**Schedule Type:** Independent Study**PHRM 587: Student Pharm Enrichment 4****Credits:** 0.25**College:** Jefferson College of Pharmacy**Schedule Type:** Independent Study**PHRM 588: Student Pharmacist Enrichment****Credits:** 1**College:** Jefferson College of Pharmacy**Schedule Type:** Independent Study**PHRM 589: Pharmacy Board Review****Credits:** 1**College:** Jefferson College of Pharmacy**Schedule Type:** Lecture, On-Line**PHRM 590: Personal Finance for Yng Prof****Credits:** 2**College:** Jefferson College of Pharmacy**Schedule Type:** Didactic, Independent Study, Lecture, Lecture/On-Line, On-Line, Seminar**PHRM 591: Medicinal Cannabis****Credits:** 3**College:** Jefferson College of Pharmacy**Schedule Type:** Exam, Lecture, Lecture/On-Line, On-Line**PHRM 592: Intro to Pharm Practice Lab II****Credits:** 1**College:** Jefferson College of Pharmacy**Schedule Type:** Lab, Lecture, Lecture/On-Line, On-Line, Seminar

PHRM 593: Well-Being for Pharmacy Studen**Credits:** 2**College:** Jefferson College of Pharmacy**Schedule Type:** Lecture, Lecture/On-Line, On-Line, Seminar**PHRM 594: JCP Elective Transfer Credits****Credits:** 2-3**College:** Jefferson College of Pharmacy**Schedule Type:** Lecture/On-Line, On-Line**PHRM 599: Independent Study****Credits:** 1-3**College:** Jefferson College of Pharmacy**Schedule Type:** Clinical, Independent Study**PHRM 610: Pharmacy Law****Credits:** 1**College:** Jefferson College of Pharmacy**Schedule Type:** Clinical, Exam, Lecture, Lecture/On-Line, On-Line**PHRM 620: Professional Seminar II****Credits:** 2**College:** Jefferson College of Pharmacy**Prerequisites:** PHRM 553**Schedule Type:** Lecture, On-Line, Seminar**PHRM 630: APPE: Community Pharmacy****Credits:** 6**College:** Jefferson College of Pharmacy**Schedule Type:** Clinical, Lecture**PHRM 640: APPE: Hospital Pharmacy****Credits:** 6**College:** Jefferson College of Pharmacy**Schedule Type:** Clinical**PHRM 650: APPE: Ambulatory Care****Credits:** 6**College:** Jefferson College of Pharmacy**Schedule Type:** Clinical**PHRM 660: APPE: Direct Inpatient Care****Credits:** 6**College:** Jefferson College of Pharmacy**Schedule Type:** Clinical**PHRM 670: APPE: Direct Patient Care****Credits:** 6**College:** Jefferson College of Pharmacy**Schedule Type:** Clinical**PHRM 680: APPE: Elective Site****Credits:** 6**College:** Jefferson College of Pharmacy**Schedule Type:** Clinical**PHRM 690: APPE: Elective Site 2****Credits:** 6**College:** Jefferson College of Pharmacy**Schedule Type:** Clinical**PHRM 699: Transfer Elective Credits****Credits:** 1-99**College:** Jefferson College of Pharmacy**Schedule Type:** Transfer Credit

Physical Therapy (PT)

PT 501: Health Care Delivery Systems**Credits:** 2**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture**PT 503: Advanced Human Anatomy****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture**PT 503L: Adv Human Anatomy Laboratory****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lab**PT 504: Advanced Human Anatomy Lab****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lab, Lecture**PT 505: Adv Analy-Human Motion****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lab, Lecture**PT 506: Biomechanics and Kinesiology****Credits:** 4**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture/Lab, On-Line**PT 507: Advanced Human Anatomy for PTs****Credits:** 6**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lab, Lecture, Lecture/Lab**PT 511: Clinical Physiology I****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture/Lab**PT 512: Pathophysiology II****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture, Lecture/Lab**PT 513: Pathophysiology I****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Clinical, Lecture, On-Line**PT 514: Pathophysiology II****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture, Lecture/On-Line, On-Line**PT 515: Geriatric Physical Therapy****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lab, Lecture**PT 516: Neuroscience****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lab, Lecture, Lecture/Lab, Lecture/On-Line, On-Line

- PT 517: Neuroscience**
Credits: 4
College: Jefferson College of Rehabilitation Sciences
Schedule Type: Lecture
- PT 518: Movement System in PT**
Credits: 2
College: Jefferson College of Rehabilitation Sciences
Schedule Type: Lecture, Lecture/Lab
- PT 521: MotorFunc Throughout Lifespan**
Credits: 3
College: Jefferson College of Rehabilitation Sciences
Schedule Type: Lecture/Lab
- PT 526: Critical Inquiry I**
Credits: 2
College: Jefferson College of Rehabilitation Sciences
Schedule Type: Lecture/Lab
- PT 527: Evidence Based Practice I**
Credits: 3
College: Jefferson College of Rehabilitation Sciences
Schedule Type: Clinical, Lecture, Lecture/On-Line, On-Line
- PT 530: Prosthetic & Orthotic Inter**
Credits: 3
College: Jefferson College of Rehabilitation Sciences
Schedule Type: Lab, Lecture
- PT 531: ClinicalProfessional Skills I**
Credits: 4
College: Jefferson College of Rehabilitation Sciences
Schedule Type: Lecture/Lab
- PT 532: ClinicalProfessional Skills II**
Credits: 4
College: Jefferson College of Rehabilitation Sciences
Schedule Type: Lecture/Lab
- PT 533: Intro to PT Examination**
Credits: 5
College: Jefferson College of Rehabilitation Sciences
Schedule Type: Clinical, Exam, Lab, Lecture, Lecture/Lab, On-Line
- PT 534: Intro to the PT Profession**
Credits: 1
College: Jefferson College of Rehabilitation Sciences
Schedule Type: Clinical, Lecture, Lecture/On-Line, On-Line
- PT 535: Prac Iss: Measure In Cli PT**
Credits: 1
College: Jefferson College of Rehabilitation Sciences
Schedule Type: Clinical, Lecture, On-Line
- PT 536: Medical Terminology**
Credits: 1
College: Jefferson College of Rehabilitation Sciences
Schedule Type: Clinical, Lecture, Lecture/On-Line, On-Line
- PT 537: Prac Iss: Lang of Practice II**
Credits: 1
College: Jefferson College of Rehabilitation Sciences
Schedule Type: Clinical, Lecture, On-Line
- PT 538: Psychosocial Aspects of PT**
Credits: 2
College: Jefferson College of Rehabilitation Sciences
Schedule Type: Lecture, Lecture/On-Line, On-Line
- PT 539: Clinical Decision Making**
Credits: 1
College: Jefferson College of Rehabilitation Sciences
Schedule Type: Clinical, Lecture, Lecture/On-Line, On-Line
- PT 540: Orthopaedic Physical Ther II**
Credits: 3
College: Jefferson College of Rehabilitation Sciences
Schedule Type: Lab, Lecture
- PT 541: PTs as Learners and Teachers**
Credits: 3
College: Jefferson College of Rehabilitation Sciences
Schedule Type: Lecture/Lab
- PT 545: Integrated Clin Exp I**
Credits: 1
College: Jefferson College of Rehabilitation Sciences
Schedule Type: Clinical, Exam, Lecture, On-Line, Seminar
- PT 546: Integrated Clin Exp II**
Credits: 1
College: Jefferson College of Rehabilitation Sciences
Schedule Type: Clinical, Lecture
- PT 551: Pediatric Physical Therapy**
Credits: 4
College: Jefferson College of Rehabilitation Sciences
Schedule Type: Lab, Lecture
- PT 553: Modalities and Physical Agents**
Credits: 3
College: Jefferson College of Rehabilitation Sciences
Schedule Type: Lab, Lecture, Lecture/Lab, On-Line
- PT 555: Intro to Therapeutic Interven**
Credits: 6
College: Jefferson College of Rehabilitation Sciences
Schedule Type: Lab, Lecture, Lecture/Lab, Lecture/On-Line, On-Line
- PT 556: Therapeutic Exercise**
Credits: 3
College: Jefferson College of Rehabilitation Sciences
Schedule Type: Exam, Lecture, Lecture/Lab, Lecture/On-Line, On-Line
- PT 560: Neurol Physical Therapy II**
Credits: 3
College: Jefferson College of Rehabilitation Sciences
Schedule Type: Lab, Lecture
- PT 590: Clinical Affiliation II**
Credits: 4
College: Jefferson College of Rehabilitation Sciences
Schedule Type: Clinical
- PT 601: Rehab:Continuum of Care**
Credits: 3
College: Jefferson College of Rehabilitation Sciences
Schedule Type: Lecture, Lecture/Lab
- PT 602: Health Pol/Legal Dimens**
Credits: 2
College: Jefferson College of Rehabilitation Sciences
Schedule Type: Lecture
- PT 603: Research Design**
Credits: 3
College: Jefferson College of Rehabilitation Sciences
Schedule Type: Lecture

PT 604: Research Seminar I**Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Reseach**PT 605: Research Seminar II****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Reseach**PT 606: Contemp Asp of PT Patient Mgmt****Credits:** 1**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture**PT 607: Musculoskeletal PT I****Credits:** 4**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture/Lab, Lab/Lecture/Online, Lecture/On-Line, On-Line**PT 608: Musculoskeletal PT II****Credits:** 4**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Exam, Lab, Lecture, Lecture/Lab, Lecture/On-Line, On-Line**PT 609: Musculoskeletal PT III****Credits:** 4**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Exam, Lecture, Lecture/Lab, Lecture/On-Line, On-Line**PT 611: Cardiovasc & Pulm PT I****Credits:** 2**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lab, Lecture, Lecture/Lab, Lab/Lecture/Online, Lecture/On-Line, On-Line**PT 612: Cardiovasc & Pulm PT II****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lab, Lecture, Lecture/Lab, On-Line**PT 613: Pharmacology****Credits:** 2**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture, Lecture/On-Line, On-Line**PT 616: Neuromuscular PT I****Credits:** 4**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture/Lab**PT 617: Neuromuscular PT I****Credits:** 5**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lab, Lecture**PT 618: Neuromuscular PT II****Credits:** 4**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lab, Lecture, On-Line**PT 621: Neuromuscular PT I****Credits:** 5**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Clinical, Exam, Lab, Lecture, Lecture/Lab, On-Line**PT 622: Neuromuscular PT II****Credits:** 4**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Clinical, Exam, Lab, Lecture, Lecture/Lab, On-Line, Small Group**PT 624: Evidence Based Practice II****Credits:** 2**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Clinical, Lab, Lecture**PT 626: Critical Inquiry II****Credits:** 2**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture/Lab**PT 627: Critical Inquiry III****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture**PT 628: Capstone Project I****Credits:** 1**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Clinical, Exam, Lab, Lecture, On-Line, Reseach, Seminar, Small Group**PT 631: Healthcare Delivery Systems****Credits:** 2**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture, Lecture/Lab**PT 632: Healthcare Delivery Systems****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Exam, Lab, Lecture, Lecture/Lab, Lecture/On-Line, On-Line**PT 645: Integrated Clin Exp III****Credits:** 1**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Clinical, Exam, Lecture, On-Line, Seminar**PT 646: Clinical Physiology III****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture**PT 651: Applied Exercise Physiology****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lab, Lecture, Lecture/Lab**PT 661: Integumentary PT****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture/Lab, Lecture/On-Line**PT 670: Prosthetics and Orthotics****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture, Lecture/Lab, On-Line**PT 674: Pediatric PT****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lab, Lecture, Lecture/Lab, On-Line

PT 680: FT Clin Ed Experience Prep**Credits:** 1**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture, On-Line**PT 681: Clinical Affiliation I****Credits:** 4**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Clinical**PT 682: Clinical Experience I****Credits:** 6**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Clinical**PT 683: FT Clin Ed Experience I****Credits:** 4**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Clinical**PT 685: FT Clin Ed Experience I****Credits:** 6**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Clinical**PT 690: Clinical Affiliation III****Credits:** 4**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Clinical**PT 692: Clinical Affiliation IV****Credits:** 4**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Clinical**PT 699: Special Topics in PT****Credits:** 1-3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Clinical, Independent Study, Lab, Lecture/Lab, On-Line, Research**PT 700: Med Screen & Diff Diagno in PT****Credits:** 2**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lab, Lecture, On-Line**PT 705: Comprehensive Case Analysis I****Credits:** 2**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Clinical, Lecture, Lecture/Lab, On-Line, Practicum**PT 706: Comp Case Analysis II****Credits:** 1**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture**PT 707: Comprehensive Case Analysis II****Credits:** 1**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** On-Line**PT 710: Capstone Project II****Credits:** 1**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lab, Lecture, Lecture/On-Line, On-Line, Research**PT 711: Capstone Project III****Credits:** 1**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Clinical, Lab, Lecture, On-Line**PT 716: Neuromuscular PT II****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lab, Lecture, Lecture/Lab**PT 721: Evidence Based Practice III****Credits:** 2**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture**PT 730: PTPracI:ProfPracToPracMgmt****Credits:** 1**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lab, Lecture, On-Line**PT 736: Business and Leadership in PT****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture, Lecture/Lab, Lecture/On-Line, On-Line**PT 741: Compr PT Clin Decision Making****Credits:** 4**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture, Lecture/Lab**PT 750: PT Electives****Credits:** 10**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lab, Lecture, On-Line**PT 774: Geriatric PT****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture, Lecture/Lab, On-Line**PT 780: FT Clin Ed Experience II****Credits:** 6**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Clinical**PT 781: Clinical Experience II****Credits:** 7**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Clinical, On-Line**PT 782: FT Clin Ed Experience III****Credits:** 8**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Clinical**PT 785: FT Clin Ed Experience II****Credits:** 9**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Clinical**PT 786: FT Clin Ed Experience III****Credits:** 12**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Clinical**PT 799: Independent Study****Credits:** 0.5-3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lab, Lecture, Seminar**PT 801: Ethical & Legal Issues in PT****Credits:** 2**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture, On-Line

PT 802: Research Methods in PT**Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Reseach**PT 803: Critical inquiry-Evidence-base****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture**PT 804: PTs as Learners & Teachers****Credits:** 2**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture/Lab**PT 805: Pharmacology & Medlmgimg PT****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture/Lab**PT 806: PT forthe Integumentary System****Credits:** 2**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture/Lab**PT 807: PT Diff Diagno & Med Screening****Credits:** 2**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture/Lab, On-Line**PT 808: Clinical Affiliation V****Credits:** 3-12**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Clinical

Physician Assistant (PAST)

PAST 500: Advanced Human Anatomy

This is a one-semester course for students enrolled in the Jefferson School of Health Professions Physician Assistant Program. The course covers the structure of the human anatomy through the use of lectures, clinical applications and dissection of the human cadavers. Advanced Human Anatomy is designed to introduce the student to the gross structure of the human cadaver. The material is divided into the following regions: back, thorax, abdomen, pelvis, upper extremity, lower extremity, neck, and head. The major visceral structures of each region and their important functional interrelationships are described in lecture and examined during dissection. The visceral relationships in each region are emphasized. The course will incorporate core textbook readings, didactic lectures by the faculty of the Department of Medical Education, audiovisual demonstrations, on-line discussions and laboratory dissection of human cadavers that will be performed in small groups. The laboratory instruction will correlate with the lectures. The students will have ample time to practice their dissection skills with faculty observation and critique. Students will also be expected to self-assess their strengths and deficiencies and seek out tutorials and advice to remedy.

Credits: 5**College:** Jefferson College of Health Professions**Schedule Type:** Lab, Lecture, Lecture/Lab, On-Line**PAST 510: Introduction to Clinical Asses**

This course is designed to instruct students in the basic skills of medical interviewing and documentation, as well as an introduction to physical examinations. Students will learn how to perform a complete medical history and provide patient education with a focus on health promotion. This course will include lectures, lab, and small group seminars in which students will practice, evaluate, and reflect on their medical interviewing skills.

Credits: 2**College:** Jefferson College of Health Professions**Schedule Type:** Lab, Lecture, Lecture/Lab**PAST 511: Physical Diagnosis I**

This is the first of three courses designed to prepare the Physician Assistant student to perform comprehensive physical examinations, with special sensitivity to gender, age, and cultural background. The course will focus primarily on the adult patient, progressing through the examination of each of the body systems in a sequential manner. Lectures will emphasize didactic instruction in the following areas: examination skills, normal findings, normal variants, and abnormal findings. An emphasis will be placed on the understanding of the relationship of major signs and symptoms to their physiologic or pathophysiologic origins. Live demonstrations and videos will be utilized to enhance the lectures. The laboratory will allow students to practice their history taking and physical examination skills in small groups facilitated by faculty members.

Credits: 1**College:** Jefferson College of Health Professions**Schedule Type:** Lab, Lecture, Lecture/Lab**PAST 512: Physical Diagnosis II**

This course is the second of three courses designed to prepare the Physician Assistant student to perform comprehensive physical examinations, with special sensitivity to gender, age and cultural background. The course will focus primarily on the adult patient, progressing through the examination of each of the body systems in a sequential manner. Lectures will emphasize didactic instruction in the following areas, examination skills, normal findings, normal variants, and abnormal findings. An emphasis will be placed on the understanding of the relationship of major signs and symptoms to their physiologic or pathophysiologic origins. Live demonstrations and videos will be utilized to enhance the lectures. The laboratory will allow students to practice their history taking and physical examination skills in small groups facilitated by faculty members.

Credits: 2**College:** Jefferson College of Health Professions**Schedule Type:** Lab, Lecture, Lecture/Lab

PAST 513: Physical Diagnosis III

This course is the final of a series of three courses designed to prepare the Physician Assistant student to perform comprehensive physical examinations, with special sensitivity to gender, age and cultural background. The course will continue the progression of examination for each of the body systems in a sequential manner. The course will be taught in conjunction with Pathophysiology III, Clinical Skills III, Pharmacology III, and Clinical Medicine IV. Lectures will emphasize didactic instruction in examination skills, normal findings, normal variants, and abnormal findings. An emphasis will be placed on the understanding of the relationship of significant signs and symptoms to their physiologic or pathophysiologic origins. Live demonstrations and videos will be utilized to enhance the lectures. The laboratory will allow students to practice their history taking and physical examination skills in small groups facilitated by faculty members.

Credits: 1**College:** Jefferson College of Health Professions**Schedule Type:** Lab, Lecture, Lecture/Lab**PAST 520: Intro to Professional Practice**

This is an introductory course examining health care related issues in today's society. It begins with a review of the history and evolution of the Physician Assistant profession in US medicine and globally. Topics to be discussed are the status, trends and characteristics of the Physician Assistant as health care providers, their education, regulation, practice patterns, external relations and professional organizations. Issues related to the Physician Assistant practice such as billing and coding and PA practice settings will also be covered. Students will acquire knowledge of various aspects of the Physician Assistant profession including, but not limited to state regulatory systems, credentialing, and the globalization of the profession.

Credits: 1**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Lecture/On-Line, On-Line**PAST 522: Legal & Ethical Aspects of Med**

This course is designed to give students an appreciation of medical ethics and their legal implications. Lectures will provide students with a basic understanding of the ethical responsibilities of Physician Assistants as health care practitioners and as individuals. The course will provide insight and foster critical thinking in the practical application of ethical issues that arise in the practice of medicine. The course will encourage the attributes of respect for self and others and a commitment to welfare of the patient. Legal issues such as litigation and contemporary medical legislation will be discussed.

Credits: 1**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Lecture/On-Line, On-Line**PAST 523: Evidence Based Med & Pop Hlth**

This course is designed to provide the students with an introduction to locating, reading, and evaluating medical literature, current medical evidence, and public health concepts. The first module will consist of instruction on basic evidence-based practices and interpretations of data. The students will be instructed in medical literature searches, literature evaluation, and how to use the results of their research. Students will be required to appraise current literature critically and to construct quality clinical questions surrounding medical cases. The second module will consist of lectures on basic public health concepts.

Credits: 1**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Lecture/On-Line, On-Line**PAST 530: Clinical Medicine I**

This is the first of a series of four Clinical Medicine courses. This course will cover all aspects of common medical conditions, including epidemiology, clinical presentation, diagnostic evaluation, management and prognosis. The course content is integrated with content in Physiology and Pathophysiology I, Clinical Skills I, and Pharmacology and Clinical Therapeutics I, which will provide a foundation for Clinical Medicine I. The following organ systems will be covered in this semester: genetics, hematology & oncology, infectious disease, otorhinolaryngology, and dermatology. The course will consist of lectures and small group seminars which will foster the development of critical thinking in the evaluation and management of patients.

Credits: 5**College:** Jefferson College of Health Professions**Schedule Type:** Lab, Lecture, Lecture/Lab, On-Line**PAST 531: Clinical Medicine II****Credits:** 5**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Seminar**PAST 532: Clinical Medicine III****Credits:** 3.5**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Lecture, Lecture/Lab**PAST 533: Clinical Medicine II**

This is the second of a series of four Clinical Medicine courses. This course will cover all aspects of common medical conditions including epidemiology, clinical presentation, diagnostic evaluation, management & prognosis. The course content is integrated with content in Physiology and Pathophysiology II, Clinical Medicine III, Clinical Skills II and Pharmacology & Clinical Therapeutics II. The following organ systems will be covered this semester: pulmonology, cardiology, and urology. The course will include lectures which will foster the development of critical thinking in the evaluation and management of patients.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Lecture/On-Line, On-Line**PAST 534: Clinical Medicine III**

This is the third of a series of four Clinical Medicine courses. This course will cover all aspects of common medical conditions including epidemiology, clinical presentation, diagnostic evaluation, management & prognosis. The course content is integrated with content in Physiology and Pathophysiology II, Clinical Medicine III, Clinical Skills II and Pharmacology & Clinical Therapeutics II. The following organ systems will be covered this semester: nephrology, gastroenterology, endocrinology and orthopedics. The course will include lectures, which will foster the development of critical thinking in the evaluation and management of patients.

Credits: 4**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Seminar

PAST 535: Clinical Medicine IV

This is the fourth of a three series of four Clinical Medicine courses. The course will cover all aspects of common medical conditions, including epidemiology, clinical presentation, diagnostic evaluation, management and prognosis. The course content is integrated with the content in Physiology and Pathophysiology III, Clinical Skills III and Pharmacology and Clinical Therapeutics III, which will provide a foundation for Clinical Medicine IV. The following organ systems will be covered in this course: neurology, rheumatology, obstetrics and gynecology. Additionally, a fundamental review of Geriatric medicine is covered in this course.

Credits: 4

College: Jefferson College of Health Professions

Schedule Type: Lecture, Lecture/Lab, Lecture/On-Line, Seminar

PAST 540: Clinical Skills I

This is the first of a three-semester course teaching advanced clinical skills. This course is designed to guide the Physician Assistant student through diagnostic tests and clinical procedures associated with conditions commonly encountered in the medical setting. Through combined lectures, case discussion, demonstrations and practice sessions, students will learn to use and/or interpret a variety of diagnostic and treatment modalities and procedures.

Credits: 1.5

College: Jefferson College of Health Professions

Schedule Type: Clinical, Lecture, Lecture/Lab, On-Line

PAST 541: Clinical Skills II

This is the second of three courses in the Clinical Skills series. This course is designed to guide the Physician Assistant student through diagnostic tests and clinical procedures associated with conditions commonly encountered in the medical setting. This course is closely aligned with Clinical Medicine II and Clinical Medicine III, and will cover diagnostic testing and procedures related to cardiology, pulmonology, urology, nephrology, endocrinology, gastroenterology and orthopedics. The class will consist of lectures and labs, as well as participation in the Jefferson Health Mentors Program.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lab, Lecture, Lecture/Lab

PAST 542: Clinical Skills III

This course is designed to guide the Physician Assistant student through diagnostic tests and clinical procedures associated with conditions commonly encountered in the medical setting. This course is closely aligned with Clinical Medicine III and Special Topics in Medicine. The course will cover diagnostic testing and procedures related to neurology, wound management, surgical procedures, and geriatric assessments. The class will consist of lectures and labs.

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: Clinical, Lab, Lecture, Lecture/Lab

PAST 550: Pharm & Clinic Therapeutics I

This is the first of three courses in Pharmacology and Clinical Therapeutics. This course will provide an in-depth survey on the general principles of pharmacology and the application of these principles to patient care situations. Students will learn the principles of pharmacokinetics, pharmacodynamics, and pharmacogenetics. Instruction on individual drugs or drug classes will include dosage forms, dose-response relationships, mechanism of action, side effects and toxicities, contraindications, and drug interaction. This course will cover medications related to hematology, oncology, infectious disease, otolaryngology, ophthalmology, psychiatry, and dermatology. Successful completion of all Pre-Fall course work is required to enroll in this course.

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, Lecture/Lab, On-Line

PAST 551: Pharm & Clinic Therapeutics II

This is the second of three courses in Pharmacology and Clinical Therapeutics. This course will provide an in depth survey on the general principles of pharmacology and the application of these principles to patient care situations. Instruction on individual drugs or drug classes will include dosage forms, dose-response relationships, mechanism of action, side effects and toxicities, contraindications, and drug interaction. This course will cover agents used in cardiology, pulmonology, endocrinology, nephrology, urology, and gastroenterology.

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

PAST 552: Pharm & Clinical Therapy III

This is the third in a three-semester course that teaches the principles of pharmacology and how to apply these principles to patient care situations. The focus is on mechanisms of drug action in different therapeutic classes, common side effects of prototypic drugs in each category, drug side effects and drug-drug interactions, the interaction of drugs with the disease state under treatment, and reputable sources of information about drugs. The learning experience offered students is coordinated with that occurring in Physiology and Pathophysiology III and Clinical Medicine III. The course will involve lecture as well as clinically correlated cases. Evidence-based medicine practice is woven through the above areas where available and appropriate.

Credits: 1.5

College: Jefferson College of Health Professions

Schedule Type: Clinical, Lecture, Lecture/Lab, Lecture/On-Line, On-Line

PAST 560: Physiology & Pathophysiology I

This is the first of three courses in Physiology & Pathophysiology. The course follows an organ system structure, and is closely integrated with Clinical Medicine I. Lectures will proceed through organ based modules emphasizing normal physiology of the system followed by the pathophysiology of diseases related to each system covered. This semester the modules that will be covered include basic cell function and growth, dermatology, ophthalmology

Credits: 2.5

College: Jefferson College of Health Professions

Schedule Type: Lecture, Lecture/Lab, On-Line

PAST 561: Physiology & Pathophys II

This is the second of three courses in Physiology and Pathophysiology. The course follows an organ systems organization, and is closely integrated with Clinical Medicine II and III. The course focuses on normal and abnormal organ function. Lectures will proceed through the organ systems, emphasizing first the normal physiology of the system, followed by the pathophysiology of diseases related to that system. This semester topics to be covered will include the cardiology, pulmonology, nephrology, endocrinology, musculoskeletal and gastroenterology.

Credits: 2.5**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, On-Line**PAST 562: Physio & Pathophysiology III**

This is the third of three courses in Physiology and Pathophysiology. The course follows an organ systems organization and is closely integrated with Clinical Medicine III. The course focuses on normal and abnormal organ function. Lectures will proceed through the organ systems, emphasizing first the normal physiology of the system, followed by the pathophysiology of diseases related to that system. This semester topics to be covered will include the neurology, rheumatology, women's health and the pathophysiology of aging. Successful completion of all Spring 1 course work is required to enroll in this course.

Credits: 1.5**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, On-Line**PAST 570: Behavioral Science**

This course introduces behavioral science theories, skills, and tools to the Physician Assistant student to enhance communication skills and enhance understanding of mental health conditions. This course will focus on cultural issues, recognition and management of domestic violence and abuse, issues related to death and dying, and common psychiatric conditions. Where possible the course content is integrated with content in pharmacology and clinical therapeutics.

Credits: 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, On-Line**PAST 581: Health Promotions&Disease Prev**

This course is designed to give the physician assistant student the knowledge and skills to apply principles of health promotion and disease prevention in a variety of clinical and community settings. The course provides instruction in social issues that affect medical care, principles of preventive medicine, medical nutrition, and principles of communication that will aid in promoting healthy behaviors in the community. This course contains a combination of lectures, case presentations, readings, and small group discussions to develop the clinical medicine skills and knowledge set that a physician assistant will need to deliver and enhance patient care in the clinical practice settings.

Credits: 1**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Lecture/On-Line, On-Line**PAST 585: Intro to Hlthcare Qual & Safey**

Presents the student with the concepts of Healthcare quality and safety as horizontally and vertically integrated throughout the healthcare system. Using the STEEEP framework from the Institute of Medicine's seminal 2001 approach and codified in the World Health Organization's definition of quality, the student learns about safe, timely, efficient, effective, equitable and patient-centered care and their applications in population health and health care delivery.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, On-Line**PAST 590: Special Topics in Medicine**

This is a modular course encompassing Emergency Medicine, Surgery, Pediatrics and other topics in medicine. Students will work through introductory lectures in each of these topics as well as learn about the epidemiology, etiologies, clinical presentations, laboratory evaluation and therapeutic management of common conditions seen in each of these fields of medicine.

Credits: 6**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, On-Line**PAST 600: Medical Terminology****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** On-Line**PAST 601: Internal Medicine Clinical****Credits:** 5**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Lecture, On-Line**PAST 603: Advanced Physical Assessment**

This integrative seminar course is designed to synthesize history taking and physical diagnosis skills with the medical, diagnostic and pharmacologic knowledge gained throughout the didactic phase of the PA program in order to apply it to stimulated patients presentations. Working in small groups and individually, students will interact with patient simulators and standardized patients to elicit a history, do an appropriate physical exam, order and/or interpret diagnostic tests, develop treatment plans and perform appropriate interventions.

Credits: 0.5**College:** Jefferson College of Health Professions**Prerequisites:** PAST 612 [Min Grade: C]**Schedule Type:** Lab, Lecture**PAST 605: Clin Correlations of Pub Hlth**

Clinical Correlations of Public Health Clinical Correlations of Public Health is a lecture and group discussion course that will allow physician assistant students to gain a fundamental understanding of public health, health policy, and its impact on clinical practice. In addition, this course will provide practical approaches for physician assistant students to provide appropriate patient education for patients with modifiable risk factors for disease.

Credits: 1**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**PAST 610: Emergency Medicine****Credits:** 5**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Lecture, On-Line

PAST 611: Clinical Medicine

This lecture course uses an organ-system organization to present an overview of the pathophysiology, clinical manifestations, diagnostic evaluation and management of common diseases encountered in primary care. The course includes modules in: epidemiology, infectious disease, cardiology, pulmonology, gastroenterology, hematology/oncology, endocrinology, nephrology, urology, rheumatology, neurology, dermatology, ophthalmology, otorhinolaryngology (ENT) and psychiatry. Principles of health promotion and disease prevention are also presented.

Credits: 8**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**PAST 613: Pharmacotherapeutics**

This lecture and case study seminar course is designed to introduce students to the principles of pharmacology, including the absorption, bioavailability, distribution, metabolism, excretion, classification and mechanism of action of commonly prescribed medications. Additionally, this course will give students an understanding of how drugs are used in clinical practice, including the clinical indications, contraindications, dosing, side effects and monitoring of commonly used medications.

Credits: 4**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**PAST 614: Emergency Medicine**

This lecture and laboratory course encompasses emergent presentations and management of common primary care and emergency-care problems. Laboratory sessions cover procedures necessary for the delivery of emergency medical care. This course also includes limited emergency room patient exposure with written assignments.

Credits: 3**College:** Jefferson College of Health Professions**Schedule Type:** Lab, Lecture, Lecture/Lab**PAST 615: Diagnostic Medicine**

Diagnostic Medicine In this lecture and laboratory course, students will perform, order, and interpret commonly used diagnostic and laboratory studies. Topics covered will include radiologic studies, electrocardiograms, microbiology, and blood studies. Corequisite: PAST-611

Credits: 2**College:** Jefferson College of Health Professions**Schedule Type:** Lab, Lecture, Lecture/Lab**PAST 616: Clinical Reasoning**

Clinical Reasoning This small group seminar course uses clinical case studies and role-playing to guide students in the development of directed history and physical examination, clinical reasoning, case presentation and patient counseling skills. Application of evidenced based medicine principles to clinical scenarios will be integral as part of patient management. Finally, various forms of medical documentation will be introduced and practiced.

Credits: 2.5**College:** Jefferson College of Health Professions**Prerequisites:** PAST 611 [Min Grade: C]**Schedule Type:** Lecture**PAST 620: Women's Health Clinical****Credits:** 5**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Lecture, On-Line**PAST 621: Clinical Disciplines Overview**

During this lecture and workshop course, the physician-assistant student is introduced to the basic principles of diagnosis and treatment in the medical disciplines of pediatrics, surgery, obstetrics and gynecology. The female and male reproductive system examination workshop is also a component of this course.

Credits: 6**College:** Jefferson College of Health Professions**Prerequisites:** PAST 611 [Min Grade: C]**Schedule Type:** Lecture**PAST 622: Pharmacotherapeutics Seminar**

This course will use small-group, case-study, problem-based seminars to demonstrate the practical utilization of medications in the clinical setting. Prescription writing, dosing, titration and ongoing monitoring will be the focus of the course. Prerequisite :PAST-613 PAST-614

Credits: 1**College:** Jefferson College of Health Professions**Prerequisites:** PAST 613 and PAST 614 [Min Grade: C]**Schedule Type:** Lab, Lecture**PAST 623: Adv Diagnostic Medicine Seminar**

Advanced Diagnostic Medicine Seminar This seminar course builds upon the foundation of knowledge in chest x-ray, abdominal x-ray, bone x-ray and ECG interpretation gained in Diagnostic Medicine. Other advanced radiologic studies such as CT scans of the head and MRIs are also reviewed. Students will recognize common disease patterns as seen on these studies.

Credits: 1**College:** Jefferson College of Health Professions**Prerequisites:** PAST 615 [Min Grade: C]**Schedule Type:** Lecture**PAST 624: Biomedical Lit & Research****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**PAST 625: Medical Genetics****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**PAST 626: Principles of PA Practice II**

In this second lecture-based course of a three-semester series, you will continue to learn about many components and aspects that embody the art of the practice of medicine. You will continue to explore the areas of where your work as a PA intersects with ethics, evidence-based medicine, behavioral medicine, and public health, as well as study skills and stress management. This course will also present material on the structure of our healthcare system and those factors that affect health policy.

Credits: 3.5**College:** Jefferson College of Health Professions**Schedule Type:** Lecture

PAST 627: Patient Care & Clin Reasoning II

This is the second of a three-semester lecture, skills, and clinical reasoning laboratory-based course designed to provide students with the communication, humanistic, medical history, physical examination, and clinical reasoning skills needed to practice medicine. This course will expand your skills to include oral presentations, diagnostic workups, suggestions for treatment plans, and patient education.

Credits: 5**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Lecture/Lab**PAST 628: Medicine II**

This second of a three-semester lecture-based course is designed to provide students with the medical and scientific concepts needed to practice medicine to include physiology, pathophysiology, clinical presentations of disease states, diagnostics studies, and treatment approaches.

Credits: 8**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**PAST 629: Medicine III****Credits:** 6**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**PAST 630: Behavioral Medicine Clinical****Credits:** 5**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Lecture, On-Line**PAST 631: Patient Care & Clin Reason III****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**PAST 632: Principles of PA Practice III****Credits:** 1.5**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**PAST 640: Surgery Clinical****Credits:** 5**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Lecture, On-Line**PAST 650: Primary Care Clinical****Credits:** 5**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Lecture, On-Line**PAST 660: Pediatrics Clinical****Credits:** 5**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Lecture, On-Line**PAST 670: Elective Clinical****Credits:** 5**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Lecture, On-Line**PAST 680: Healthcare I****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, On-Line**PAST 681: Healthcare II****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Lecture, Lecture/On-Line**PAST 690: Graduate Project I****Credits:** 0.5**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Lab, Lecture, On-Line, Reseach**PAST 691: Graduate Project II****Credits:** 0.5**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Lab, Lecture, Lecture/On-Line, On-Line, Reseach**PAST 695: Summative Evaluation****Credits:** 0**College:** Jefferson College of Health Professions**Schedule Type:** On-Line, Practicum**PAST 700: Clinical Rotation - 18 credits****Credits:** 18**College:** Jefferson College of Health Professions**Schedule Type:** Physician Asst Rotation**PAST 701: Clinical Rotation 12 credits****Credits:** 12**College:** Jefferson College of Health Professions**Schedule Type:** Physician Asst Rotation**PAST 702: Clinical Rotation 6 credits****Credits:** 6**College:** Jefferson College of Health Professions**Schedule Type:** Physician Asst Rotation**PAST 741: Internal Medicine Rotation**

The physician assistant student will complete nine (5- to 6-week) rotations in the following clinical areas: Internal Medicine, Pediatrics, Surgery, Primary Care 1 & 2, Women's Health, Behavioral Health, Emergency Medicine, Elective rotation. Prerequisite: Complete all other PA didactic course work before registering for clinical rotations

Credits: 6**College:** Jefferson College of Health Professions**Prerequisites:** PAST 621 [Min Grade: C]**Schedule Type:** Physician Asst Rotation**PAST 741A: Internal Med Rotation a****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Physician Asst Rotation**PAST 741B: Internal Med Rotation B****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Physician Asst Rotation**PAST 742: Pediatrics Rotation**

The physician assistant student will complete nine (5- to 6-week) rotations in the following clinical areas: Internal Medicine, Pediatrics, Surgery, Primary Care 1 & 2, Women's Health, Behavioral Health, Emergency Medicine, Elective rotation. Prerequisite: Complete all other PA didactic course work before registering for clinical rotations

Credits: 6**College:** Jefferson College of Health Professions**Prerequisites:** PAST 621 [Min Grade: C]**Schedule Type:** Physician Asst Rotation

PAST 742A: Pediatrics Rotation a

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, Physician Asst Rotation

PAST 742B: Pediatrics Rotation B

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, Physician Asst Rotation

PAST 743: Women's Health Rotation

The physician assistant student will complete nine (5- to 6-week) rotations in the following clinical areas: Internal Medicine, Pediatrics, Surgery, Primary Care 1 & 2, Women's Health, Behavioral Health, Emergency Medicine, Elective rotation. Prerequisite: Complete all other PA didactic course work before registering for clinical rotations

Credits: 6

College: Jefferson College of Health Professions

Prerequisites: PAST 621 [Min Grade: C]

Schedule Type: Physician Asst Rotation

PAST 743A: Obs / Gyn Rotation a

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, Physician Asst Rotation

PAST 743B: Obs / Gyn Rotation B

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, Physician Asst Rotation

PAST 744: Psychiatry Rotation

The physician assistant student will complete nine (5- to 6-week) rotations in the following clinical areas: Internal Medicine, Pediatrics, Surgery, Primary Care 1 & 2, Women's Health, Behavioral Health, Emergency Medicine, Elective rotation. Prerequisite: Complete all other PA didactic course work before registering for clinical rotations

Credits: 6

College: Jefferson College of Health Professions

Prerequisites: PAST 621 [Min Grade: C]

Schedule Type: Physician Asst Rotation

PAST 744A: Psychiatry Rotation a

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, Physician Asst Rotation

PAST 744B: Psychiatry Rotation B

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, Physician Asst Rotation

PAST 745: Surgery Rotation

The physician assistant student will complete nine (5- to 6-week) rotations in the following clinical areas: Internal Medicine, Pediatrics, Surgery, Primary Care 1 & 2, Women's Health, Behavioral Health, Emergency Medicine, Elective rotation. Prerequisite: Complete all other PA didactic course work before registering for clinical rotations

Credits: 6

College: Jefferson College of Health Professions

Prerequisites: PAST 621 [Min Grade: C]

Schedule Type: Physician Asst Rotation

PAST 745A: Surgery Rotation a

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, Physician Asst Rotation

PAST 745B: Surgery Rotation B

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, Physician Asst Rotation

PAST 746: Emergency Medicine Rotation

The physician assistant student will complete nine (5- to 6-week) rotations in the following clinical areas: Internal Medicine, Pediatrics, Surgery, Primary Care 1 & 2, Women's Health, Behavioral Health, Emergency Medicine, Elective rotation. Prerequisite: Complete all other PA didactic course work before registering for clinical rotations

Credits: 6

College: Jefferson College of Health Professions

Prerequisites: PAST 621 [Min Grade: C]

Schedule Type: Physician Asst Rotation

PAST 746A: Emergency Med Rotation a

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, Physician Asst Rotation

PAST 746B: Emergency Med Rotation B

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, Physician Asst Rotation

PAST 759: Primary Care 1 Rotation

The physician assistant student will complete nine (5- to 6-week) rotations in the following clinical areas: Internal Medicine, Pediatrics, Surgery, Primary Care 1 & 2, Women's Health, Behavioral Health, Emergency Medicine, Elective rotation. Prerequisite: Complete all other PA didactic course work before registering for clinical rotations

Credits: 6

College: Jefferson College of Health Professions

Prerequisites: PAST 621 [Min Grade: C]

Schedule Type: Physician Asst Rotation

PAST 759A: Primary Care 1 Rotation

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, Physician Asst Rotation

PAST 759B: Primary Care 1 Rotation

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, Physician Asst Rotation

PAST 760: Primary Care 2 Rotation

The physician assistant student will complete nine (5- to 6-week) rotations in the following clinical areas: Internal Medicine, Pediatrics, Surgery, Primary Care 1 & 2, Women's Health, Behavioral Health, Emergency Medicine, Elective rotation. Prerequisite: Complete all other PA didactic course work before registering for clinical rotations

Credits: 6

College: Jefferson College of Health Professions

Prerequisites: PAST 621 [Min Grade: C]

Schedule Type: Physician Asst Rotation

PAST 760A: Primary Care 2 Rotation

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, Physician Asst Rotation

PAST 760B: Primary Care 2 Rotation

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, Physician Asst Rotation

PAST 761: Transition to Clinical Practice

This lecture and laboratory based course is designed as a transitional course to provide the students with the needed skills to effectively navigate their learning and the clinical setting. The laboratory portion of this course will teach commonly utilized clinical procedures and skills which students will be performing while on rotations.

Credits: 6**College:** Jefferson College of Health Professions**Schedule Type:** Clinical**PAST 762: Transition to the Clinical Yr.**

This lecture and laboratory based course is designed as a transitional course to provide the students with the needed skills to effectively navigate their learning and the clinical setting. The laboratory portion of this course will teach commonly utilized clinical procedures and skills which students will be performing while on rotations.

Credits: 6**College:** Jefferson College of Health Professions**Prerequisites:** PAST 621 [Min Grade: C]**Schedule Type:** Clinical**PAST 763: Med Surgical Selective Rotation**

The physician assistant student will complete nine (5- to 6-week) rotations in the following clinical areas: Internal Medicine, Pediatrics, Surgery, Primary Care 1 & 2, Women's Health, Behavioral Health, Emergency Medicine, Elective rotation. Prerequisite: Complete all other PA didactic course work before registering for clinical rotations

Credits: 6**College:** Jefferson College of Health Professions**Prerequisites:** PAST 621 [Min Grade: C]**Schedule Type:** Physician Asst Rotation**PAST 763A: Med Surgical Selective Rotation****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Physician Asst Rotation**PAST 763B: Med Surgical Selective Rotation****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Physician Asst Rotation**PAST 764: Elective Rotation**

The physician assistant student will complete nine (5- to 6-week) rotations in the following clinical areas: Internal Medicine, Pediatrics, Surgery, Primary Care 1 & 2, Women's Health, Behavioral Health, Emergency Medicine, Elective rotation. Prerequisite: Complete all other PA didactic course work before registering for clinical rotations

Credits: 6**College:** Jefferson College of Health Professions**Prerequisites:** PAST 621 [Min Grade: C]**Schedule Type:** Physician Asst Rotation**PAST 764A: Elective Rotation****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Physician Asst Rotation**PAST 764B: Elective Rotation****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, Physician Asst Rotation**PAST 772: Masters Comprehensive Exp**

This course, which takes place throughout the entire clinical year, is the capstone experience of the PA program. It consists of multiple components to assess the students' progression and knowledge base throughout the clinical year. It consists of two components. The first is an independent project which will be developed with, and supervised by, a faculty advisor to include an extensive literature review, integration of knowledge acquired throughout the curriculum, a written assignment and an oral presentation. The course also includes a multi-faceted summative evaluation/assessment procedure consisting of: a comprehensive written examination that encompasses topics drawn from the entire PA program curriculum; a series of Objective Structured Clinical Examinations (OSCE) using standardized patients where students must demonstrate the ability to elicit a medical history, perform a physical examination, order appropriate diagnostic studies, formulate a diagnosis, develop a management plan, render patient education and document the findings, all as appropriate to the clinical cases presented. Students must successfully pass the independent project and the multi-faceted evaluation procedure in order to complete the requirements for this course and the master's degree. Prerequisite :Complete all PA professional didactic courses before registering for PAST-772

Credits: 2**College:** Jefferson College of Health Professions**Prerequisites:** PAST 621 [Min Grade: C]**Schedule Type:** Independent Study, Lecture

Physiology (JCLS) (PS)

PS 520: Mammalian Physiology**Credits:** 10**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture/Lab**PS 612: Pulmonary Physiology****Credits:** 2**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture**PS 613: Muscle Physiology****Credits:** 2**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture**PS 617: Literature Review****Credits:** 2**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture**PS 621: Endocrine Physiology****Credits:** 2**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture**PS 623: Renal Physiology****Credits:** 2**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture**PS 624: Energy Transduction****Credits:** 2**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture

PS 627: Literature Review

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Lecture, Tutorial

PS 631: Membrane/Cell Physiology

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Lecture

PS 632: Cardiovascular Physiol

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Lecture

PS 633: Pathophys-Circulatory Disease

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Lecture, Seminar

PS 634: Adv Neurophysiology

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Lecture

PS 637: Literature Review

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Lecture, Tutorial

PS 651: Spec Top-Signal Transduction

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Seminar

PS 652: Spec Top-Ion Chan Biophysics

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Seminar

PS 653: Spec Top in Motility

Credits: 2

College: Jefferson College of Life Sciences

Schedule Type: Seminar

PS 655: Fund of Integrative Physiology

Credits: 3

College: Jefferson College of Life Sciences

Prerequisites: GC 550

Schedule Type: Exam, Lecture, On-Line

PS 656: Adv Integrative Physiology

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lecture, On-Line

PS 710: Seminar

Credits: 1

College: Jefferson College of Life Sciences

Schedule Type: On-Line, Seminar

PS 720: Seminar

Credits: 1

College: Jefferson College of Life Sciences

Schedule Type: On-Line, Seminar

PS 722: Scientific Lecturing

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lecture

PS 723: Scientific Writing

Credits: 3

College: Jefferson College of Life Sciences

Schedule Type: Lecture

PS 730: Current Literature

Credits: 1

College: Jefferson College of Life Sciences

Schedule Type: On-Line, Seminar

PS 731: Current Lit-PS II

Credits: 1

College: Jefferson College of Life Sciences

Prerequisites: PS 520

Schedule Type: Seminar

PS 732: Current Literature

Credits: 1

College: Jefferson College of Life Sciences

Schedule Type: Lecture, On-Line, Seminar

PS 740: Historical Devel-Physiol

Credits: 1

College: Jefferson College of Life Sciences

Schedule Type: Lecture

Population Health (POP)

POP 500: Essentials of PopulationHealth

Credits: 3

College: Jefferson College of Population Health

Schedule Type: Didactic, Lecture, On-Line, Practicum, Seminar

POP 510: Health Econ, Risk, & Finance

Credits: 3

College: Jefferson College of Population Health

Schedule Type: Lecture, On-Line, Seminar

POP 516: Teaching Population Health

Credits: 3

College: Jefferson College of Population Health

Schedule Type: On-Line

POP 541: Pop Health for Employers

Credits: 3

College: Jefferson College of Population Health

Schedule Type: On-Line

POP 542: Pop Health Analytics for Emp

Credits: 3

College: Jefferson College of Population Health

Schedule Type: On-Line

POP 543: Wellness, Prev, & CDM for Emp

Credits: 3

College: Jefferson College of Population Health

Schedule Type: On-Line

POP 544: New Models & Employee Hlthcare

Credits: 3

College: Jefferson College of Population Health

Schedule Type: On-Line

POP 545: Pop Health Law for Employers

Credits: 3

College: Jefferson College of Population Health

Schedule Type: On-Line

POP 550: Disease Prev & Care Management**Credits:** 3**College:** Jefferson College of Population Health**Prerequisites:** HPL 500**Schedule Type:** Didactic, Lecture, On-Line, Practicum, Research, Seminar**POP 560: PopHealth Mgmt Applications****Credits:** 3**College:** Jefferson College of Population Health**Prerequisites:** POP 500**Schedule Type:** Lecture, On-Line, Seminar**POP 561: Pop Health Strategy & Mgmt****Credits:** 3**College:** Jefferson College of Population Health**Prerequisites:** POP 560**Schedule Type:** On-Line**POP 600: Capstone Seminar****Credits:** 1.5-3**College:** Jefferson College of Population Health**Prerequisites:** POP 560**Schedule Type:** On-Line, Research, Seminar**POP 601: Capstone Project****Credits:** 3**College:** Jefferson College of Population Health**Schedule Type:** Clinical, Lecture, On-Line, Research**POP 650: Capstone****Credits:** 3**College:** Jefferson College of Population Health**Prerequisites:** POP 500 and POP 510**Schedule Type:** On-Line, Research**POP 655: Capstone Extension****Credits:** 0**College:** Jefferson College of Population Health**Prerequisites:** POP 650**Schedule Type:** On-Line**POP 699: Independent Study****Credits:** 3**College:** Jefferson College of Population Health**Schedule Type:** Independent Study**POP 700: Pop Health Professional Credit****Credits:** 1-99**College:** Jefferson College of Population Health**Schedule Type:** Transfer Credit**POP 701: Pop Health Professional Credit****Credits:** 1-99**College:** Jefferson College of Population Health**Schedule Type:** Transfer Credit

Population Health Intelligence (PHI)

PHI 501: Health Informatics & Analytics**Credits:** 3**College:** Jefferson College of Population Health**Schedule Type:** On-Line**PHI 516: Specialized Data Topics****Credits:** 3**College:** Jefferson College of Population Health**Schedule Type:** On-Line**PHI 518: Data Science****Credits:** 3**College:** Jefferson College of Population Health**Prerequisites:** AHE 511 or PHS 650 or PBH 605**Schedule Type:** On-Line**PHI 527: Analytics Leadership****Credits:** 3**College:** Jefferson College of Population Health**Schedule Type:** On-Line**PHI 532: Data Presentation Architecture****Credits:** 3**College:** Jefferson College of Population Health**Schedule Type:** On-Line**PHI 538: Implementation Science****Credits:** 3**College:** Jefferson College of Population Health**Schedule Type:** On-Line**PHI 605: Adv Stat for Data Analytics****Credits:** 3**College:** Jefferson College of Population Health**Schedule Type:** On-Line**PHI 650: Capstone Seminar & Project****Credits:** 3**College:** Jefferson College of Population Health**Schedule Type:** On-Line**PHI 700: Pop Health Int Profess Credits****Credits:** 1-99**College:** Jefferson College of Population Health**Schedule Type:** Transfer Credit

Population Health Pharmacy (PHP)

PHP 501: Pharmacoepidemiology**Credits:** 3**College:** Jefferson College of Pharmacy**Schedule Type:** On-Line**PHP 502: Applied Pharmacoeconomics****Credits:** 3**College:** Jefferson College of Pharmacy**Schedule Type:** On-Line**PHP 503: Ev-Based Med & Care Pathway Dev****Credits:** 3**College:** Jefferson College of Pharmacy**Schedule Type:** On-Line**PHP 504: Pharm Informatics & Hlthcre Data****Credits:** 3**College:** Jefferson College of Pharmacy**Schedule Type:** On-Line

PHP 505: Pharmacy Benefit Design**Credits:** 3**College:** Jefferson College of Pharmacy**Schedule Type:** On-Line

Population Health Sciences (PHS)

PHS 602: Bioethics**Credits:** 1**College:** Jefferson College of Population Health**Schedule Type:** Lecture, Lecture/On-Line, On-Line**PHS 605: Adv Stats Mthds Data Analysis****Credits:** 3**College:** Jefferson College of Population Health**Schedule Type:** Lecture, Lecture/On-Line, On-Line**PHS 615: Adv Stat/PH:Multi-Lvl Modeling****Credits:** 3**College:** Jefferson College of Population Health**Prerequisites:** PHS 605**Schedule Type:** Lecture, Lecture/On-Line, On-Line, Seminar**PHS 620: Teaching/Learning Seminar****Credits:** 3**College:** Jefferson College of Population Health**Schedule Type:** Lecture, Lecture/On-Line, On-Line, Seminar**PHS 650: Eval&Outcomes Research&Design****Credits:** 3**College:** Jefferson College of Population Health**Schedule Type:** Lecture, Lecture/On-Line, On-Line, Seminar**PHS 660: Mentored Research Experience****Credits:** 1-3**College:** Jefferson College of Population Health**Schedule Type:** On-Line, Research, Seminar**PHS 680: Adv Anl Top for Health Beh Sci****Credits:** 3**College:** Jefferson College of Population Health**Prerequisites:** PBH 602 and PHS 605**Schedule Type:** Lecture, Lecture/On-Line, On-Line**PHS 699: Independent Study****Credits:** 1-3**College:** Jefferson College of Population Health**Schedule Type:** Exam, Independent Study**PHS 700: Integrative Research Seminar****Credits:** 1-3**College:** Jefferson College of Population Health**Schedule Type:** Lecture, Lecture/On-Line, On-Line, Seminar**PHS 710: Adv Health Behav Method & Meas****Credits:** 3**College:** Jefferson College of Population Health**Prerequisites:** PBH 602**Schedule Type:** Lecture, On-Line**PHS 800: Comprehensive Exam Prep****Credits:** 1**College:** Jefferson College of Population Health**Prerequisites:** PHS 605 and PHS 615 and PHS 602 and PHS 620 and

HPL 500 and POP 500 and AHE 501 and PBH 502

Schedule Type: Didactic, On-Line, Research, Seminar**PHS 801: Comprehensive Exam****Credits:** 1**College:** Jefferson College of Population Health**Prerequisites:** PHS 800**Schedule Type:** Clinical, Exam, On-Line, Practicum, Research, Seminar**PHS 805: Dissertation Proposal Seminar****Credits:** 3**College:** Jefferson College of Population Health**Prerequisites:** PHS 801**Schedule Type:** Lecture, Lecture/On-Line, On-Line, Seminar**PHS 807: Dissertation Proposal Defense****Credits:** 1**College:** Jefferson College of Population Health**Prerequisites:** PHS 805**Schedule Type:** Didactic, Lecture, On-Line, Research, Seminar**PHS 810: Dissertation Progress****Credits:** 3**College:** Jefferson College of Population Health**Prerequisites:** PHS 807**Schedule Type:** Independent Study, Lecture, On-Line, Research**PHS 810A: Dissertation****Credits:** 3-6**College:** Jefferson College of Population Health**Schedule Type:** Lecture, Research, Seminar**PHS 810B: Dissertation****Credits:** 3**College:** Jefferson College of Population Health**Schedule Type:** Lecture, Research, Seminar**PHS 811: Final Dissertation Defense****Credits:** 3**College:** Jefferson College of Population Health**Prerequisites:** PHS 810**Schedule Type:** Lecture, On-Line, Research, Seminar**PHS 812: Dissertation Progress****Credits:** 1-5**College:** Jefferson College of Population Health**Schedule Type:** On-Line, Research**PHS 855: Dissertation Extension****Credits:** 0**College:** Jefferson College of Population Health**Schedule Type:** On-Line

Psychology (PSYC) Public Health (JCLS) (PH)

PH 501: Introduction to Public Health**Credits:** 2**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture**PH 502: Behav&Soc Theor/Public Health****Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture**PH 503: Plan & Eval Health Programs****Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture

PH 504: Healthcare Economics**Credits:** 2**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture**PH 505: Enviro/Occupational Toxicology****Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture**PH 506: Health Services Research****Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture**PH 507: Environmental Health****Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture**PH 508: HealPol:International Perspect****Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture**PH 509: Health Communication****Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture**PH 606: Qualitative Research Methods****Credits:** 2**College:** Jefferson College of Life Sciences**Prerequisites:** PH 506**Schedule Type:** Lecture/Lab**PH 607: Intro to GeographicInfoSystems****Credits:** 1**College:** Jefferson College of Life Sciences**Schedule Type:** Lecture**PH 610: Capstone Seminar****Credits:** 3**College:** Jefferson College of Life Sciences**Prerequisites:** PH 501 and GC 660 and MI 580**Schedule Type:** Seminar**PH 615: Planning and Evaluation****Credits:** 3**College:** Jefferson College of Life Sciences**Prerequisites:** GC 660 and MI 580 and PH 501 and PH 506 and PH 502**Schedule Type:** Lecture**PH 665: Data Analysis w/StatSoftware****Credits:** 1**College:** Jefferson College of Life Sciences**Prerequisites:** GC 660**Schedule Type:** Lecture/Lab**PH 699: Independent Study****Credits:** 1-3**College:** Jefferson College of Life Sciences**Schedule Type:** Independent Study**PH 710: Capstone Project****Credits:** 3**College:** Jefferson College of Life Sciences**Schedule Type:** Reseach**PH 810: Clerkship-Public Health****Credits:** 3-6**College:** Jefferson College of Life Sciences**Schedule Type:** Clinical**PH 820: Master's Clerkship-PH****Credits:** 1-6**College:** Jefferson College of Life Sciences**Schedule Type:** Reseach**PH 830: Clerkship-Public Health****Credits:** 3-6**College:** Jefferson College of Life Sciences**Schedule Type:** Clinical, Independent Study**PH 870: Research-Public Health****Credits:** 1-6**College:** Jefferson College of Life Sciences**Schedule Type:** Reseach**PH 880: Master's Research-PH****Credits:** 1-6**College:** Jefferson College of Life Sciences**Schedule Type:** Reseach**PH 890: Reasearch-Public Health****Credits:** 1-6**College:** Jefferson College of Life Sciences**Schedule Type:** Reseach

Public Health (JCPH) (PBH)

PBH 500: Foundations of US HC System**Credits:** 3**College:** Jefferson College of Population Health**Schedule Type:** Lecture, Lecture/On-Line, On-Line**PBH 501: Foundations of Public Health****Credits:** 3**College:** Jefferson College of Population Health**Schedule Type:** Lecture, Lecture/On-Line, On-Line**PBH 502: Society,Behavior&Environment****Credits:** 3**College:** Jefferson College of Population Health**Schedule Type:** Lecture, Lecture/On-Line, On-Line**PBH 503: History of Public Health****Credits:** 3**College:** Jefferson College of Population Health**Prerequisites:** (PBH 501 or PH 501) and (PBH 506 or MI 580)**Schedule Type:** Lecture**PBH 504: Fundamentals of Stat for Rsrch****Credits:** 3**College:** Jefferson College of Population Health**Schedule Type:** Lecture, Lecture/On-Line, On-Line**PBH 505: Fund of Stats for Practice****Credits:** 3**College:** Jefferson College of Population Health**Schedule Type:** Lecture, Lecture/On-Line, On-Line**PBH 506: Fundamentals of Epidemiology****Credits:** 3**College:** Jefferson College of Population Health**Schedule Type:** Lecture, Lecture/On-Line, On-Line

PBH 507: Fundamentals of Environ Health

Credits: 3

College: Jefferson College of Population Health

Schedule Type: Lecture, Lecture/On-Line, On-Line

PBH 509: Foundation of Policy&Advocacy

Credits: 3

College: Jefferson College of Population Health

Schedule Type: Lecture, Lecture/On-Line, On-Line

PBH 510: Health Research Methods

Credits: 3

College: Jefferson College of Population Health

Schedule Type: Lecture, Lecture/On-Line, On-Line, Reseach

PBH 511: Health Communication

Introduces health communication and relevant theories and models of individual and social change. Topics include planning, implementation, and evaluation of health communication and social marketing campaigns; cultural competency; health literacy; skills in patient care communication; role of communication in health care and public health promotion and disease prevention; media advocacy; mass media and health; entertainment-education; and the similarities and differences between U.S.-based and global health communication. Strategies in health communication and social marketing are reviewed across the levels of the social ecological model, including at the interpersonal, community, organizational, and policy levels.

Credits: 3

College: Jefferson College of Population Health

Schedule Type: Lecture, Lecture/On-Line, On-Line

PBH 512: Qualitative Research Methods

Credits: 3

College: Jefferson College of Population Health

Schedule Type: Lecture, Lecture/On-Line, On-Line, Reseach

PBH 513: Public Health Law & Ethics

Credits: 3

College: Jefferson College of Population Health

Prerequisites: PBH 509

Schedule Type: Lecture, Lecture/On-Line, On-Line

PBH 514: Dimensions of Global Health

Credits: 3

College: Jefferson College of Population Health

Schedule Type: Lecture, Lecture/On-Line, On-Line

PBH 515: Cultural Humility & Competence

Credits: 3

College: Jefferson College of Population Health

Schedule Type: Lecture, Lecture/On-Line, On-Line

PBH 516: Health & Human Rights

Credits: 3

College: Jefferson College of Population Health

Schedule Type: Lecture, Lecture/On-Line, Seminar

PBH 518: Applied Policy & Advocacy

Credits: 3

College: Jefferson College of Population Health

Prerequisites: PBH 509

Schedule Type: Lecture, Lecture/On-Line, On-Line

PBH 519: Policy Eval & Measurement

Credits: 3

College: Jefferson College of Population Health

Schedule Type: Lecture

PBH 520: Program Planning & Evaluation

Credits: 3

College: Jefferson College of Population Health

Schedule Type: Lecture, Lecture/On-Line, On-Line

PBH 521: Program PlanImplement&Eval

Credits: 3

College: Jefferson College of Population Health

Prerequisites: PBH 501 and PBH 502 and PBH 504 and PBH 506 and PBH 507 and PBH 509 and PBH 510

Schedule Type: Lecture, On-Line, Seminar

PBH 522: Program Plan,Implement&Eval 2

Credits: 3

College: Jefferson College of Population Health

Prerequisites: PBH 521

Schedule Type: Lecture, On-Line, Reseach, Seminar

PBH 600: Capstone Seminar

Credits: 1.5,3

College: Jefferson College of Population Health

Prerequisites: PBH 601

Schedule Type: Seminar

PBH 601: Capstone Project

Credits: 1.5,3

College: Jefferson College of Population Health

Prerequisites: PBH 600

Schedule Type: Reseach, Seminar

PBH 602: AdvSoc&BehTheory&Int

Credits: 3

College: Jefferson College of Population Health

Prerequisites: PBH 502

Schedule Type: Lecture, Lecture/On-Line, On-Line, Seminar

PBH 603: Substance Use

Credits: 3

College: Jefferson College of Population Health

Schedule Type: Lecture, Lecture/On-Line, On-Line

PBH 604: Essentials of R for Pub Health

Credits: 3

College: Jefferson College of Population Health

Prerequisites: PBH 504

Schedule Type: Lecture, Lecture/On-Line, On-Line

PBH 605: AdvStatMethodsforDataAnalysis

Credits: 3

College: Jefferson College of Population Health

Prerequisites: PBH 504

Schedule Type: Lecture, Lecture/On-Line, On-Line

PBH 606: Advanced Epidemiology

Credits: 3

College: Jefferson College of Population Health

Prerequisites: PBH 504 or PBH 505 and PBH 506

Schedule Type: Lecture, Lecture/On-Line, On-Line

PBH 607: InfectiousDiseaseEpidemiology

Credits: 3

College: Jefferson College of Population Health

Prerequisites: PBH 504 or PBH 505 and PBH 506 or PBH 606

Schedule Type: Lecture, Lecture/On-Line, On-Line

PBH 608: Epidemiology of ChronCondition**Credits:** 3**College:** Jefferson College of Population Health**Prerequisites:** PBH 506 or MI 580**Schedule Type:** Lecture**PBH 609: GIS Mapping****Credits:** 3**College:** Jefferson College of Population Health**Prerequisites:** (PBH 506 or PBH 606) and (PBH 504 or PBH 505)**Schedule Type:** Lecture, Lecture/On-Line, On-Line**PBH 610: Capstone Seminar & Project****Credits:** 3**College:** Jefferson College of Population Health**Prerequisites:** PBH 510 and PBH 650**Schedule Type:** Lecture, Lecture/On-Line, Reseach, Seminar**PBH 611: Capstone - ILE 1****Credits:** 2**College:** Jefferson College of Population Health**Prerequisites:** PBH 510**Schedule Type:** Lecture, Lecture/On-Line, On-Line, Seminar**PBH 612: LEAP Capstone - ILE 2****Credits:** 1**College:** Jefferson College of Population Health**Prerequisites:** PBH 611**Schedule Type:** Lecture, Lecture/On-Line, On-Line, Seminar**PBH 613: LPHT Capstone - ILE 1****Credits:** 3**College:** Jefferson College of Population Health**Prerequisites:** PBH 510**Schedule Type:** Lecture, Lecture/On-Line, On-Line, Seminar**PBH 614: LPHT Capstone - ILE 2****Credits:** 0**College:** Jefferson College of Population Health**Prerequisites:** PBH 613**Schedule Type:** Lecture, Lecture/On-Line, On-Line, Seminar**PBH 615: PA/MPH Capstone-ILE****Credits:** 2**College:** Jefferson College of Population Health**Schedule Type:** Reseach**PBH 616: LEAP ILE****Credits:** 0**College:** Jefferson College of Population Health**Schedule Type:** Lecture**PBH 650: Clerkship-AppliedPracticalExp****Credits:** 3**College:** Jefferson College of Population Health**Schedule Type:** Clinical, Lecture, On-Line, Practicum, Reseach**PBH 651: Clerkship Applied Practice Exp****Credits:** 0**College:** Jefferson College of Population Health**Schedule Type:** On-Line, Practicum, Reseach**PBH 655: Community Health Experience****Credits:** 3**College:** Jefferson College of Population Health**Schedule Type:** Reseach**PBH 656: Capstone Extension****Credits:** 0**College:** Jefferson College of Population Health**Prerequisites:** PBH 612 or PBH 614**Schedule Type:** On-Line**PBH 660: Clinical Public Health****Credits:** 0**College:** Jefferson College of Population Health**Schedule Type:** On-Line, Seminar**PBH 697: CourseRemed-Stats for Practice****Credits:** 0**College:** Jefferson College of Population Health**Schedule Type:** Didactic, Lecture, On-Line**PBH 698: CourseRemed-Stats for Research****Credits:** 0**College:** Jefferson College of Population Health**Schedule Type:** Didactic**PBH 699: Independent Study****Credits:** 6**College:** Jefferson College of Population Health**Schedule Type:** Independent Study, On-Line**PBH 700: Dual-Degree / Transfer Credits****Credits:** 9,12**College:** Jefferson College of Population Health**Schedule Type:** Transfer Credit**PBH 701: Elective Credits****Credits:** 0**College:** Jefferson College of Population Health**Schedule Type:** Transfer Credit

Rad Sci Cardiac Sonography (RSCS)

RSCS 511: Cardiovascular Physiology**Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, On-Line**RSCS 522: Cardiovascular Pharmacology****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, On-Line

Rad Sci Computed Tomography (RSC)

RSC 500: CT Physics & Instrumentation**Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**RSC 511: Cardiovascular Physiology****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**RSC 531: CT Procedures I****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture

RSC 532: CT Procedures II

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

Rad Sci CT Certificate (RSCC)

RSCC 500: CT Physics and Instrumentation

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, Lecture/On-Line, On-Line

RSCC 501: Cross-sectional Anatomy

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

RSCC 502: Cross-Sectional Anatomy II

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

RSCC 512: CT Clinical I

Credits: 4

College: Jefferson College of Health Professions

Schedule Type: Clinical, On-Line

RSCC 513: CT Clinical

Credits: 6

College: Jefferson College of Health Professions

Schedule Type: Clinical, On-Line

RSCC 514: CT Clinical III

Credits: 8

College: Jefferson College of Health Professions

Schedule Type: Clinical, On-Line

RSCC 531: CT Procedures I

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, Lecture/On-Line, On-Line

RSCC 532: CT Procedures II

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, Lecture/On-Line, On-Line

RSCC 533: CT Procedures Simulation Lab I

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: Lab

RSCC 534: CT Procedures Sim Lab II

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: Lab

RSCC 573: CT Review Seminar

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Seminar

Rad Sci Inv Cardiovasc Tech (RSI)

RSI 502: Noninvasive Test Prin & Proced

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

RSI 511: Cardiovascular Physiology

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

RSI 512: Cardiovascular Patho

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

RSI 513: Radiobiology & Health Physics

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture

RSI 522: Cardiovascular Pharmacology

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

RSI 531: Clinical Invasive I

Credits: 6

College: Jefferson College of Health Professions

Schedule Type: Clinical

RSI 532: Clinical Invasive II

Credits: 6

College: Jefferson College of Health Professions

Schedule Type: Clinical, Lecture, On-Line

RSI 533: Clinical Invasive III

Credits: 8

College: Jefferson College of Health Professions

Schedule Type: Clinical

RSI 538: Invasive Procedures I

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

RSI 539: Invasive Procedures II

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

RSI 541: Radiographic physics & inst I

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

RSI 542: Radiographic Physics & Inst I

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Clinical, Lab, Lecture

RSI 557: Invasive Principles I

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

RSI 558: Invasive Principles II

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

RSI 583: Invasive Review Seminar

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

Rad Sci Medical Dosimetry (RSD)

RSD 602: Cross-Sectional Anatomy II

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture

RSD 640: Radiation Biology

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line, Seminar

Rad Sci Nuclear Medicine (RSN)

RSN 620: Radiation Protection

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

Rad Sci PET/CT (RSPC)

RSPC 500: CT Physics and Instrumentation

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, Lecture/On-Line, On-Line

RSPC 501: Cross - Sectional Anatomy

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

RSPC 502: Cross-Sectional Anatomy II

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

RSPC 512: PET/CT Clinical I

Credits: 4

College: Jefferson College of Health Professions

Schedule Type: Clinical, Lecture

RSPC 513: PET/CT Clinical II

Credits: 4

College: Jefferson College of Health Professions

Schedule Type: Clinical, Lecture

RSPC 514: PET/CT Clinical III

Credits: 4

College: Jefferson College of Health Professions

Schedule Type: Clinical, Lecture

RSPC 515: PET Procedures

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

RSPC 516: PET Principles

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

RSPC 531: CT Procedures I

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, Lecture/On-Line, On-Line

RSPC 532: CT Procedures II

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

RSPC 533: CT Procedures Simulation Lab I

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: Lab

RSPC 534: CT Procedures Sim Lab II

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: Lab

Rad Sci Vascular Technology (RSV)

RSV 511: Cardiovascular Physiology

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture

RSV 512: Cardiovascular Pathophysiology

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

Radiologic Science (RS)

RS 510: RS Research I

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

RS 520: RS Research II

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line, Research

RS 525: Curriculum Development

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture

RS 530: Radiologic and Imaging Science

Credits: 2

College: Jefferson College of Health Professions

Schedule Type: Lecture

RS 540: Program Management

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, On-Line

RS 550: Principles of Instruction**Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, On-Line**RS 560: Program Accreditation****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**RS 570: US Healthcare System****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**RS 580: Personnel Management****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**RS 590: Accreditation & Quality Mgmt****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**RS 610: Advances Current Technology I****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**RS 620: RS Current Technology II****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**RS 630: Faculty Development****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**RS 640: Financial Management****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Lecture**RS 650: Health Care Law & Ethics****Credits:** 3**College:** Jefferson College of Health Professions**Prerequisites:** RS 610**Schedule Type:** Lecture**RS 660: Seminar****Credits:** 2**College:** Jefferson College of Health Professions**Schedule Type:** Seminar**RS 680: Capstone Project****Credits:** 3**College:** Jefferson College of Health Professions**Prerequisites:** RS 520 and RS 530 and RS 620**Schedule Type:** Reseach**RS 690: Capstone I****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, On-Line, Reseach**RS 691: Capstone Project II****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, On-Line, Reseach**RS 692: Capstone III****Credits:** 1**College:** Jefferson College of Health Professions**Schedule Type:** Lecture, On-Line, Reseach**RS 699: Independent Study****Credits:** 1-3**College:** Jefferson College of Health Professions**Schedule Type:** Reseach

Real Estate (MRE)

MRE 601: Sustain Real Estate Dev Proc

This course provides a step-by-step overview of the stages in environmentally and fiscally sustainable real estate and land-use development, considered from the developer's perspective. Topics range from conceptualization and market analysis; site acquisition, zoning, codes, infrastructure and tax incentives; project planning and design; economic feasibility and financing; the development team; the construction process; plus marketing and financial evaluation. Through cases and lectures presented by leading developers, students investigate the market-driven challenges and benefits of sustainable development with emphasis upon the role of the developer in the creation of an architecturally and ecologically superior built environment.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Hybrid, Lecture, On-Line**MRE 602: Intro to Urban & Reg Planning**

Tracing the evolution of modern urban and regional planning, its practice and its results, this course will discuss its development within the context of American metropolitan growth and decline. This course will show how practitioners applied elements of design, engineering, law and the social sciences to create the profession of planning. Special emphasis will be placed on how the profession of planning affected minority communities through racial zoning, segregated housing policies, and programs like Urban Renewal, Opportunity Zones, Choice Neighborhoods and HOPE VI.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Lecture**MRE 603: Intro to Commercial Devl**

This course will provide an introductory overview of the commercial real estate development process primarily from the perspective of the equity owner. It concentrates on the identification of important assumptions and trends related to the financial feasibility, marketability, and design of commercial real estate development.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Lecture

MRE 604: CS: Mixed Use, Comm, Hlth Care

This course focuses on the challenges and opportunities intrinsic to three distinct, but interconnected and overlapping, development types, with primary focus upon Mixed-Use (a blend of residential commercial, cultural, institutional and/or industrial uses), complemented by Commercial (office and retail), and Health Care facilities of multiple scales (including senior assisted living, not-for-profit neighborhood clinics, and outreach services). Working in a team-based process, students investigate exemplary, "real world" case studies in a series of intensive charrettes that employ Philadelphia as a living laboratory. The Case Study course not only affords students the opportunity to visit and dissect actual development sites, but also to assess the financial and social impact of each development type upon the community, as well as evaluate long-term fiscal and environmental outcomes in projects whose scale and density carry far-reaching social, economic, and "quality of life" consequences.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Hybrid, Lecture**MRE 615: Real Estate Fin & Investment**

This course introduces concepts, principles and analytical methods used in making sound finance and investment decisions in real estate development. Topics include pro forma analysis, tax analysis, cash flow forecasting, computer modeling, equity valuation, and risk assessment. Using an inductive approach, students gain practical experience applying financial and investment tools in a wide array of property types and development scenarios. Also investigated are capital sources and availability for sustainable planning paradigms, such as Smart Growth, Adaptive Reuse, Brownfield and Infill redevelopment and Transit-Oriented Development (TOD).

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Prerequisites:** MRE 601 [Min Grade: C]**Schedule Type:** By Appointment - 1 student, Lecture**MRE 620: Case Study Studio:UrbanRevital**

Course addresses a critical issue facing the contemporary city, namely how to creatively invigorate urban communities- architecturally, environmentally and fiscally. By assessing the macro and microeconomics of neighborhoods, students evaluate the social, political and financial impact of sustainable planning strategies, including Smart Growth, Brownfield and Infill redevelopment, Transit Oriented Development (TOD), New Urbanism "live, work, play," Mixed-use environments, and the Adaptive Reuse of existing buildings. Student teams investigate "real world" projects, using Philadelphia as a living laboratory. The course affords students the opportunity to visit and dissect actual development sites and measure sustainable interventions as a springboard to urban revitalization.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Prerequisites:** MRE 601**Schedule Type:** Hybrid, Lecture**MRE 625: Real Estate Law & Eth Pract**

This course examines fundamental legal principles and ethical practices applicable to real estate development. Topics include: contracts, constitutional law, zoning and regulatory aspects of land use, permitting, environmental law and business ethics. Students evaluate the legal issues and ethical implications raised in current case studies and examine the rights, obligations, and liabilities of the major stakeholders in the development process.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Prerequisites:** MRE 601 [Min Grade: C]**Schedule Type:** Hybrid, Lecture, Lecture/On-Line, On-Line**MRE 630: Market Analysis and Valuation**

This course identifies data sources and indicators used to track the demographic, sociological, technological and economic trends that impact the supply and demand for particular building types and sites within specific markets and geographic areas. Linked to market trends, valuation analysis assesses the value of an investment and utilizes income capitalization, cash equivalency, highest and best use concepts of discounted cash flow (DCF), cost approach and direct sales comparison to inform sound development decisions. Through examination of wide-ranging case studies, students apply market analysis and valuation techniques to residential, commercial and office markets, as well as consider their implications for sustainable community prototypes.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Prerequisites:** MRE 601**Schedule Type:** Hybrid, Lecture**MRE 635: Public Private Partnerships**

Increasingly federal, state, and local governments are partnering with for-profit and non-profit development companies, transferring potential risks and rewards of development to the private sector in exchange for financial incentives as return on investment, such as tax abatements, innovative financing, subsidies, and regulatory approvals, among other practices. This course examines the opportunities and challenges of public-private partnerships (PPPs), the techniques employed to encourage growth, and the market and fiscal feasibility of cross-sector collaborations. In problem-based learning exercises students analyze case studies drawn from multiple contexts, with particular emphasis upon sustainable neighborhood redevelopment, rezoning of brownfields and grayfields, infill development, adaptive reuse, as well as affordable and mixed income housing. Working in teams students design and plan an affordable housing development, beginning with site selection in Philadelphia and feasibility studies, tax credit and tax exempt bond financing, community involvement, political considerations, and financial feasibility.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Prerequisites:** MRE 601 [Min Grade: C]**Schedule Type:** Lecture

MRE 638: Case Study:Sust Afford Housing

The course provides a broad overview of the affordable housing industry, including a detailed study of the techniques for financing affordable housing. The course also looks at the challenges of integrating sustainable development processes while maintaining affordability. Governmental programs such as the Low Income Housing Tax Credit program and public policies that promote the development and rehabilitation of affordable will be explored. Undergraduate Pre-Requisite: MRE-601 Graduate Co-Requisite: MRE-601

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Prerequisites: MRE 601 [Min Grade: C]

Schedule Type: Hybrid, Lecture

MRE 640: Capstone Project

The course is the culminating Capstone Project required to graduate with the Masters of Science in Real Estate Development degree from Jefferson University. Students propose a thesis; work with a dedicated advisor to develop the project; orally present the project; and submit their written documentation for final evaluation.

Credits: 4

College: Jefferson Coll of Architecture & Built Environment

Prerequisites: MRE 601 and MRE 615 and MRE 620 and MRE 625 and MRE 630 and MRE 635 and (MRE 638 or MRE 604) and GEOD 625 and SDN 601 and CMGT 600 [Min Grade: C]

Schedule Type: Hybrid, Lecture, On-Line

MRE 650: Independent Real Estate Resrch

This course instructs students on how to write well-researched, organized, and correctly documented research on a real estate development topic. Students will learn how to find, evaluate, and document sources, as well as incorporate information from research into their writing. Throughout the course, students will expand their knowledge of real estate development while becoming more fluent in their writing. Objectives include: 1. To improve student knowledge and skills related to research on a specialized subject, 2. To foster student critical thinking about ethical concerns or complex decision making related to real estate development, and 3. To promote the production and dissemination of real estate research.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: Hybrid, Lecture, On-Line

Reg Dietitian Nutritionist (RDN)

RDN 511: Nutritional Biochem & Physio

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, Lecture/On-Line, On-Line

RDN 531: Integ Nutr Acr the Life Cycle

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, Lecture/On-Line, On-Line

RDN 535: Food Science & Safety

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, Lecture/On-Line, On-Line

RDN 537: Cul Nutr,Func Foods,&Diet Plan

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, Lecture/On-Line, On-Line

RDN 571: Medical Nutrition Therapy I

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, Lecture/On-Line, On-Line

RDN 612: Nutr Comm, Edu, & Leadership

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, Lecture/On-Line, On-Line

RDN 614: Nutrition Counseling

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, Lecture/On-Line, On-Line

RDN 622: Global & Public Hlth Nutrition

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, Lecture/On-Line, On-Line

RDN 661: Management in Nutrition

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, Lecture/On-Line, On-Line

RDN 665: Sustainable Nutrition Practice

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: Clinical, Lecture, Lecture/On-Line, On-Line, Practicum, Seminar

RDN 671: Medical Nutrition Therapy II

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, Lecture/On-Line, On-Line

RDN 675: Nutrition Support

Credits: 0.5

College: Jefferson College of Health Professions

Schedule Type: Lab, Lecture, Lecture/Lab, On-Line

RDN 675L: Nutrition Support

Credits: 0.5

College: Jefferson College of Health Professions

Schedule Type: Lab, Lecture, Lecture/Lab, Lecture/On-Line, On-Line

RDN 681: Nutrition Research

Credits: 3

College: Jefferson College of Health Professions

Schedule Type: Lecture, Lecture/On-Line, On-Line

RDN 692: Capstone

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: Seminar

RDN 712: SEL-Nutr Comm, Edu, & Lead Exp

Credits: 1.5

College: Jefferson College of Health Professions

Schedule Type: Clinical, Lecture, Lecture/On-Line, On-Line, Practicum

RDN 714: SEL-Nutrition Counseling Exp

Credits: 1.5

College: Jefferson College of Health Professions

Schedule Type: Clinical, Lecture, Lecture/On-Line, On-Line, Practicum

RDN 722: SEL-Public Nutr Experience

Credits: 1.5

College: Jefferson College of Health Professions

Schedule Type: Clinical, Lecture, Lecture/On-Line, On-Line, Practicum

RDN 761: SEL-Nutrition Management Exp**Credits:** 1.5**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Lecture, Lecture/On-Line, On-Line, Practicum**RDN 762: SEL-Food Serv & Culinary Exp****Credits:** 1.5**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Lecture, Lecture/On-Line, On-Line, Practicum**RDN 765: SEL-Sustainable Nutrition Exp****Credits:** 1.5**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Lecture, Lecture/On-Line, On-Line, Practicum**RDN 771: SEL-Intro to Nutr Therapy Exp****Credits:** 1.5**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Lecture, Lecture/On-Line, On-Line, Practicum**RDN 772: SEL-Clinical Experience I****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Lecture, Lecture/On-Line, On-Line, Practicum**RDN 773: SEL-Clinical Experience 2****Credits:** 3**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Lecture, Lecture/On-Line, On-Line, Practicum**RDN 782: SEL-Individualized Profess Exp****Credits:** 1.5**College:** Jefferson College of Health Professions**Schedule Type:** Clinical, Lecture, Lecture/On-Line, On-Line, Practicum

Rehabilitation Sciences (JCRS)

JCRS 730: Intro to Life Care Planning**Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** On-Line**JCRS 731: Prim on Cat Inj & Chr Cond LCP****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** On-Line**JCRS 732: Specialty Topics in LCP****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** On-Line**JCRS 733: LCP Practicum****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** On-Line**JCRS 740: Design Approaches for Hlthcare****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** On-Line**JCRS 741: New Meth for Assist Tech Creat****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** On-Line**JCRS 742: Scaling Up & Finding a Market****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** On-Line**JCRS 743: Qual Improvement Through Des****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** On-Line**JCRS 750: Foundations in Hand Therapy****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture/On-Line**JCRS 751: Nerve Injuries of the Hand&UL****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture/On-Line, On-Line**JCRS 752: Joint Pathology of the Hand&UL****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture/On-Line, On-Line**JCRS 753: Diseases That Affect Hand & UL****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** Lecture/On-Line, On-Line**JCRS 760: Introduction and Development****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** On-Line**JCRS 761: Skills for Evid-Based Coaching****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** On-Line**JCRS 762: Assess&Fidel of Coaching Implm****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** On-Line**JCRS 763: Coaching Evolution****Credits:** 3**College:** Jefferson College of Rehabilitation Sciences**Schedule Type:** On-Line

SDE Interdisciplinary Courses (SDE)

SDE 600: Prototyping Inter Interfaces I

This course addresses the need by design professionals to prototype interactive systems comprising both hardware and software components, and to assess these solutions based on principles of cognitive and physical human factors. Through iterative prototyping of both screen-based interfaces and tangible interfaces using simple microcontrollers, this class teaches basic programming, integration of electronic sensors and outputs into physical prototypes, and principles of human factors testing for assessment of interactive interfaces.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture

SDE 607: Design of Play

The act of play heightens optimism, energy, joy, memorable experiences, and is an essential part of a fulfilling and well life. Play is a catalyst for creativity and innovation and can exist in unexpected situations. In this course, students will explore the benefits and possibilities facilitated by play via concepts and theories of play for educational, imaginative and wellness purposes. Students will apply these concepts to designed products and/or communication tools that connect to personal skill sets and interests.

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture

SDE 700: Prototyping Int Interfaces II

This course is the second in a series addressing the need by design professionals to prototype and assess interactive systems comprising both hardware and software components. Students will refine and build upon skills gained in Prototyping I while exploring algorithms for the capture and manipulation of data to create new modes of interaction in areas such as networked and mobile devices, kinetic sculpture, wearable circuits, and novel electronic tools.

Credits: 3

College: School of Design & Engineering

Schedule Type: By Appointment - 1 student, By Appointment, Lecture

SDE 770: SDE Special Topics

This is an upper-level course designed to take advantage of resident/adjunct/visiting faculty members' expertise or a special focus wanted by the School for one or two terms. These courses might provide an in-depth treatment of recent advances in subjects of current interest in a given field whose subject matter is not necessarily needed to be offered long term. A specific "topic" may be delivered a maximum of two terms.

Credits: 0.5

College: School of Design & Engineering

Schedule Type: By Appointment - 1 student, Lecture

SDE 771: SDE Special Topics

Credits: 1

College: School of Design & Engineering

Schedule Type: By Appointment - 1 student, Independent Study, Lecture

SDE 772: SDE Special Topics

Credits: 1.5

College: School of Design & Engineering

Schedule Type: Lecture

SDE 773: SDE Special Topics

Credits: 3

College: School of Design & Engineering

Schedule Type: By Appointment - 1 student, By Appointment, Hybrid, Independent Study, Lecture, Lecture/Studio Combination, On-Line, Studio

SDE 774: SDE Special Topics

Credits: 4

College: School of Design & Engineering

Schedule Type: Lecture, On-Line

SDE 776: SDE Special Topics

Credits: 6

College: School of Design & Engineering

Schedule Type: Independent Study, Lecture

SDE 777: SDE Special Topics

Credits: 7

College: School of Design & Engineering

Schedule Type: By Appointment - 1 student, Lecture, On-Line

SDE 780: SDE Independent Study

Credits: 0.5

College: School of Design & Engineering

Schedule Type: Independent Study

SDE 781: SDE Independent Study

Credits: 1

College: School of Design & Engineering

Schedule Type: Independent Study

SDE 783: SDE Independent Study

Credits: 3

College: School of Design & Engineering

Schedule Type: Independent Study

SDE 786: SDE Independent Study

Credits: 6

College: School of Design & Engineering

Schedule Type: Independent Study

Social Justice (SCJU)

SCJU 631: Soc Jus Sem: Food,Weight&Hlth

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: Lecture, Lecture/On-Line, On-Line, Seminar

SCJU 632: Soc Jus Sem: Interprof Perspec

Credits: 0.5

College: Jefferson College of Health Professions

Schedule Type: Lecture, Lecture/On-Line, On-Line, Seminar

SCJU 633: Soc Jus Sem: Syst Barr & Chal

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: Lecture, Lecture/On-Line, On-Line, Seminar

SCJU 634: Soc Jus Sem: Analysis&Advocacy

Credits: 1

College: Jefferson College of Health Professions

Schedule Type: Lecture, Lecture/On-Line, On-Line, Seminar

Special Topics in Design (DSGN)

DSGN 661: Japanese Craft Production

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture

Speech-Language Pathology (SLP)

SLP 601: Clinical Practicum I

Credits: 1

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Lecture, Lecture/On-Line, On-Line

SLP 602: Clinical Practicum II

Credits: 2

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Clinical, On-Line

SLP 603: Clinical Practicum

Credits: 3

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Clinical, Practicum

SLP 604: Clinical Practicum II

Credits: 5

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Clinical, Practicum

SLP 605: Seminar I: Interprof Education

Credits: 1

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Lecture, Lecture/On-Line, On-Line

SLP 606: SemII:ClinPrac/EarlyInt&EduSet

Credits: 1

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Lecture, Lecture/On-Line, On-Line

SLP 607: Sem III:Clin Prac/Medical Stgs

Credits: 1

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Lecture, Lecture/On-Line, On-Line

SLP 608: Sem IV:Evidence Based Practice

Credits: 1

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Lecture, Lecture/On-Line, On-Line

SLP 609: Seminar V: Professional Issues

Credits: 1

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Lecture, Lecture/On-Line, On-Line

SLP 610: Lang Disord of Early Childhood

Credits: 3

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Lecture, Lecture/On-Line, On-Line

SLP 611: Neural Bases of Communication

Credits: 1

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Lecture, Lecture/On-Line, On-Line

SLP 612: Spch Sound Disord in Children

Credits: 3

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Lecture, Lecture/On-Line, On-Line

SLP 613: Aphasia&Other Acq Neur Lan Dis

Credits: 3

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Lecture, Lecture/On-Line, On-Line

SLP 614: Clinical Methods in SLP

Credits: 3

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Lecture, Lecture/On-Line, On-Line

SLP 615: Ped Feed/Swallow Dev & Disord

Credits: 3

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Lecture, Lecture/On-Line, On-Line

SLP 616: Research Methods in SLP

Credits: 3

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Lecture, Lecture/On-Line, On-Line

SLP 617: Lang Disord/Late Child & Adol

Credits: 3

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Lecture, Lecture/On-Line, On-Line

SLP 618: Diag&Mgmt of Dysphagia in Adlt

Credits: 3

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Lecture, Lecture/On-Line, On-Line

SLP 619: Disorders of Voice & Resonance

Credits: 3

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Lecture, Lecture/On-Line, On-Line

SLP 620: Motor Speech Disorders

Credits: 3

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Lecture, Lecture/On-Line, On-Line

SLP 621: Adv Audiology & Aural Rehab

Credits: 2

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Lecture, Lecture/Lab, Lecture/On-Line, On-Line

SLP 622: Cognitive Communication Disord

Credits: 3

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Lecture, Lecture/On-Line, On-Line

SLP 623: Fluency

Credits: 3

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Lecture, Lecture/On-Line, On-Line

SLP 624: Augmentative & Alternative Com

Credits: 2

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Lecture, Lecture/On-Line, On-Line

SLP 625: Genetics

Credits: 3

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Lecture, Lecture/On-Line, On-Line

SLP 626: Capstone Portfolio

Credits: 0

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Independent Study, Reseach, Seminar

SLP 627: Advanced Topics in SLP

Credits: 3

College: Jefferson College of Rehabilitation Sciences

Schedule Type: Lecture

Stat Analysis Software (CSAS)

Surface Imaging (MSSI)

MSSI 501: Digital Textile Printing

The course consists of theory and practice for digitally printing imageries on textile substrates for wet and dry processing (natural and synthetic fibers) from ideation to printing production on textile substrates. It includes (1) understanding of matrix of fibers and colorants (2) printing requirements and (3) pre and post treatments.

Credits: 1.5

College: School of Design & Engineering

Schedule Type: Lecture, Lecture/Lab, On-Line

MSSI 502: Hard Surface Digital Printing

Through a series of theories and experiential practices, students will learn to develop the printed production on rigid hard surface substrates with UV cured flatbed digital printing systems. In addition to printing direct colorations with coloring the images, the course also focuses on 2.5-dimensional printing (fundamental of additive printing practice) to introduce printed physical textures to the substrates as well as a basic concept of print-to-shape.

Credits: 1.5

College: School of Design & Engineering

Schedule Type: Lecture, On-Line

MSSI 503: Dig Print for Flex Substrates

Lecture and experiential practice course focuses on development of printed products for roll to roll flexible substrates, including organic and inorganic films, cling films, paper etc. with Eco Solvent, UV and Latex printing systems. This course will allow students to understand the potentials and limitations of digital printing on flexible substrates through layer printing, second surface printing, lamination, and print / cut (decals) mechanism.

Credits: 1.5

College: School of Design & Engineering

Schedule Type: Lecture, Lecture/Lab, On-Line

MSSI 504: Digital Color Management

The course will introduce a range of essential skills of digital color management through lectures and practices. It covers theory of digital color management, calibration, generating ICC color profiles for the workflow across different devices.

Credits: 1.5

College: School of Design & Engineering

Schedule Type: Lecture, Lecture/Lab, On-Line

MSSI 505: Printing Technology

This is an online lecture course that focuses on the principles, techniques and chemical processes involved with printing technologies. This course covers printing mechanisms, chemistry, coloration systems and styles for impact, non-impact, additive and subtractive printing. Media preparation, post treatment (fixation) and industrial testing standards are also examined. At the same time, the course also introduces the principal of surface Imaging supply chains that includes design, manufacturing, marketing and product distribution.

Credits: 1.5

College: School of Design & Engineering

Schedule Type: On-Line

MSSI 506: Surface Imaging Design

Surface Imaging Design will provide students the basic principals of decorative design processes (repeated pattern development and workflow) and design research methodologies for Surface Imaging. A series of short design projects are introduced with Adobe suites to enhance conceptual, technical and skill development towards surface imaging design.

Credits: 1.5

College: School of Design & Engineering

Schedule Type: Lecture, Studio

MSSI 510: Specialist Printing

This course will introduce a range of specialist printing technologies on textile substrates with flatbed screen printing for Surface Imaging. Through lectures and practices, the course covers theory, chemistry, process, and workflow related to the specialist printing.

Credits: 1.5

College: School of Design & Engineering

Schedule Type: Lecture, Lecture/Lab

MSSI 550: Surface Imaging Pattern Design

This course covers the design process and workflow to develop pattern design for surface imaging from research and ideation to finished pattern design collections. A series of short design projects, combining with technical process and aesthetic development, are introduced throughout the semester to enhance conceptual, technical, and skill development in Surface Imaging design and production.

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture

MSSI 601: Surface Imaging Design I

This is the first design studio course in the MSSI program that focuses on the individual creative design process utilizing design research methodologies, printing technologies as well as executed crafted control and successful design in surface imaging. Prerequisite: MSSI-500 Surface Imaging Design Foundation or equivalent

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture, Lecture/Studio Combination, Studio

MSSI 602: Intro to Material Sci for SI

This course will survey materials and materials-related processes associated with surface imaging applications. The science describing a wide range of solid-state materials (e.g., bulk metals and ceramics), polymeric materials (e.g., porous/non-porous substrates) and polymer solutions (e.g., inks, dyes and pigments) will be explained. The structure and properties of modern materials will be related to enhanced performance in the fields of surface imaging. Surface chemistry, including polar and non-polar surface tension and wetting phenomena will also be described from a materials science point-of-view. Some laboratory demonstrations will be included to reinforce student learning of these basic materials science concepts.

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture

MSSI 607: Printing Technology for SI

This is a lecture and lab course that focuses on the principles, techniques and chemical processes involved with printing technologies. This course covers printing mechanisms, chemistry, coloration systems and styles for impact, non-impact, additive and subtractive printing. Media preparation, post treatment (fixation) and industrial testing standards are also examined. At the same time, the course also introduce the principal of surface Imaging supply chains of surface Imaging supply chains including design, manufacturing, marketing and product distribution.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture, Lecture/Studio Combination, Studio**MSSI 700: Transdisciplinary Project I**

This is an interdisciplinary course that involves real world industry related projects as well as working collaboration with a variety of disciplines. Example of projects may include: MSSI + corporate sponsor, MSSI + corporate sponsor + MSID + GFE, MSSI + corporate sponsor + MSTE + iMBA, etc.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture, Studio**MSSI 701: Surface Imaging Design II**

This advanced studio course emphasizes innovation in surface imaging design and technology. Students will identify current industry movements-from contemporary global surface imaging industries in design, applied engineering and business-to develop innovative surface imaging projects toward future applications and systems. Prerequisite: MSSI-601 Surface Imaging Design I

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture, Studio**MSSI 702: Transdisciplinary Project II****Credits:** 3**College:** School of Design & Engineering**Schedule Type:** Lecture, Studio**MSSI 791: Internship for Surface Imaging****Credits:** 3**College:** School of Design & Engineering**Schedule Type:** Internship 3 Credits**MSSI 798: Independt Study Surface Imagin****Credits:** 3**College:** School of Design & Engineering**Schedule Type:** Independent Study**MSSI 800: SI Master Project**

Master Project is the final degree project for MSSI. This course consists of (1) the final project based on a concentrated area of SI design, SI applied engineering or SI commerce and (2) a documentation of a business plan to support the project toward an entrepreneurial application in the surface imaging industry. Students are required to represent the project in exhibition format and to conduct an in-person defense of their project to faculty members and outside critics. Prerequisite: MSSI-7XX Surface Imaging Design II This course will be first offered Summer 2016.

Credits: 9**College:** School of Design & Engineering**Schedule Type:** Lecture, Lecture/Studio Combination, Studio

Sustainable Design (SDN)

SDN 601: Princ & Methods of Sust Design

Sustainability is a cultural phenomenon that is reshaping the way architects, engineers, designers and planners conceive of the built environment. This lecture/seminar course will explore changes in culture over the years that have led to the formation and adoption of contemporary sustainable design practices, technologies and processes. Current aspects of sustainability will be explored including the impact of the LEED rating system, legislation, environmental law, corporate culture evolution, integrated design process, energy modeling and economic impacts of land development. Students will complete a final paper on future directions in sustainable design at the end of the course.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Lecture, Lecture/On-Line, On-Line**SDN 601M: Sustainable Dsgn Methodologies****Credits:** 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Lecture, Lecture/On-Line, On-Line**SDN 602: Adaptive & Resilient Dsgn Sdio**

An introduction to quantitative criteria that define adaptive responses as instrumental characteristics of design based on human comfort, program, climate and site. Investigations will seek an understanding of the reciprocity between competing (and often contradictory) design forces, such as theoretical versus real, dynamic versus static, spatial and numerical, energy gain and loss. An awareness of the function of scientific instruments for measurements and performance assessments on buildings and outdoor spaces on real sites with the goal of achieving human comfort will be explored. Students will propose design interventions in accordance with their experimental data and use simulation tools to assess ultimate performance of the intervention.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Lab, Lecture, Lecture/Lab, Lecture/On-Line, Online Lab, On-Line, Studio**SDN 603: Sustainable Building Systems**

This course will provide a thorough understanding of of sustainable building systems in order to optimize energy efficiency and minimize environmental pollution while maintaining human comfort resulting in a holistically designed building that is non-polluting and energy efficient. Students will complete a series of case studies and a final project.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Lecture, Lecture/On-Line, On-Line**SDN 604: Life Cycle Assess & Circ Ecnmy**

A key requirement to completing a successful sustainable design project is a careful consideration of the environmental and energy performance impacts of construction materials. Students will begin the course by learning how to complete a life cycle analysis for materials as preparation for the design and creation of their own material/construction system. During the project, students will continue to discuss the pros and cons of different materials/construction systems in the context of trying to better understand the tenants of sustainable design. Students will complete a final "construction" as part of the requirements for the course.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Lab, Lecture, Lecture/Lab, Lecture/On-Line, Online Lab, On-Line, Online Studio

SDN 609: Building Info Modeling for SD

This lecture/lab course is divided into two parts. The first part establishes skills in utilizing BIM software as an effective tool for architectural graphic communication. The second part establishes skills for exploring, analyzing, refining, and presenting sustainable design projects.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: Lecture, Lecture/On-Line, On-Line

SDN 613: The Green Program

Credits: 1.5

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: Lab

SDN 619: High Performance Bldg Envelop

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: Lecture, Studio

SDN 621: MS: Resilient Cities & Comms

Students will take a trans-disciplinary approach to developing a campus scale built environment project that integrates Socio-cultural, Experiential, Ecological and Performative design perspectives into a comprehensive design project. The first half of the semester will focus on the following: A comprehensive site inventory and analysis; comprehensive design requirements; guiding principles and resource benchmarks via the use of case studies. The second half of the semester focuses on the synthesizes of the work completed in the first half through the integrated sustainable design process that features collaborative design charrettes, periodic performance simulations, qualitative evaluations, calculations and costs estimates to insure a high level of performance from all design perspectives.

Credits: 4

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: Lecture, On-Line, Studio

SDN 622: MS: Living Buildings

This studio will emphasize interdisciplinary teaching and learning as a fundamental core concept of sustainable design. Students will be challenged to work collaboratively on a series of design projects that foster creativity, ingenuity and innovation as key components of effective sustainable design.

Credits: 4

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: By Appointment - 1 student, By Appointment - 2 students, Lecture, On-Line, Online Studio, Studio

SDN 623: SC: Eco Sys for Resilnt Cities

This studio companion course is about exploration, various points of view and transcending disciplinary boundaries. We will traverse the 'landscape' and examine it through the lens of the various disciplines to understand each perspective and how it shapes our environment and culture. Through readings from leading architects, landscape architects, geographers, and historians, we will dissect the ways in which culture influences human conceptions of landscape and the environment, the effect of humans on the environment and the impact the environment and landscape has on humans.

Credits: 2

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: Lecture, Lecture/On-Line, On-Line

SDN 624: SC: Sust Syst for Living Bldgs

This studio companion course will provide a thorough understanding of sustainable building systems in order to optimize energy efficiency and minimize environmental impact while maintaining human comfort resulting in a holistically designed building that is non-polluting and energy efficient.

Credits: 2

College: Jefferson Coll of Architecture & Built Environment

Prerequisites: SDN 622 [Min Grade: C]

Schedule Type: By Appointment - 1 student, Lecture, Lecture/Lab, Lecture/On-Line, On-Line

SDN 625: Env Imp Analysis and Sys Think

"This three-phase course will first introduce students to the facets of global environmental change, as well as emerging sustainability paradigms and frameworks. In-class discussions and activities will draw on readings by through-leaders and foundational studies in top journals (Economist, Forbes, Scientific American) and peer-reviewed scholarship (Science, Nature, PNAS). Subsequently, in phase II students will learn problem solving approaches in the form of systems thinking modeling and life-cycle analysis, and apply them to several contemporary socioecological challenges. These case-studies will provide students experience in quantitative analysis that can aid in problem-definition and decision-making. The final phase of the course will offer the opportunity to apply these tools and frameworks to their own real-world sustainability challenges, in order to visualize and analyze complexity, and conduct a sustainability audit."

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: Lecture, On-Line

SDN 626: Models & Metrics for Sust Orgs

This lecture course builds upon work completed in SDN 625 Environmental Impact Analysis and Systems. Student will bring their problem identifications and research to this course for further development. This course will prepare working professionals to develop business models and use metrics to achieve high level sustainability goals for an organization. Students will use the Business Model Canvas to organize their entrepreneurship and intrapreneurship activities to achieve marketable and scalable sustainability initiatives. Students will learn how to use the Blab framework to develop and achieve the metrics commensurate with Bcorp certification for Sustainable Businesses.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: Lecture, Lecture/On-Line

SDN 627: Sust Adv & Chg Mgmt

Master the concepts, tools, and practices needed to advance a sustainability initiative from an initial plan to tangible results. After training in topics that range from project management to intrapreneurship to behavioral economics, students develop a detailed implementation plan and a compelling pitch to gain the support of key stakeholders in their own organization or of the clients in their assigned project.

Credits: 3

College: Jefferson Coll of Architecture & Built Environment

Schedule Type: Lecture

SDN 628: Capstone in Sustainable Design

This is a culminating studio experience, which is a self-directed and faculty monitored. Students are challenged to synthesize knowledge and skills from their previous coursework in order to create a new sustainable design, and to demonstrate topic mastery. This course is an alternative to the thesis sequence, but still requires research, the creation of a well-reasoned argument, a research booklet, and a final design presentation. The final design must include a quantitative validation as part of the final requirements for graduation.

Credits: 6**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Lecture, On-Line**SDN 702: Energy and Carbon Modeling****Credits:** 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Lab, Lecture**SDN 710: Green Design Build****Credits:** 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Lecture, Studio**SDN 797: Special Topics in Sustainab.****Credits:** 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** By Appointment, Lecture**SDN 798: Ind Study in Sustainable Dsign**

Independent Study in Sustainable Design

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Independent Study

Tax (TAX)

TAX 660: Individual Taxation & Plann

This course is a study of federal tax law as it pertains to individuals. It emphasizes the determination of gross income, deductions and credits, tax accounting and timing principles, realization and recognition of gains and losses, and standards of tax practice and ethical concerns. Students gain an awareness of history and tax policy considerations behind various Internal Revenue Code provisions.

Credits: 3**College:** School of Business**Schedule Type:** Hybrid, Lecture**TAX 662: Corporation Taxation & Plann**

This course will provide students with knowledge concerning organization, capital structure, gross income and deductions, dividends, accumulated earnings tax, personal holding tax and stock redemptions.

Credits: 3**College:** School of Business**Schedule Type:** Lecture**TAX 664: Tax Research & Profe Responsi**

This course enhances the student's ability to identify tax issues, locate and evaluate the legal authority relevant to those issues and effectively communicate, both orally and in written form, the conclusions and recommendations from their research. Electronic (computer) research will be taught in a hands-on setting. Students will gain an awareness of issues in federal tax practice and procedure, including ethical concerns for tax professionals.

Credits: 3**College:** School of Business**Schedule Type:** Lecture**TAX 763: Financial Planning**

This course will cover all aspects of financial planning including income tax planning, estate tax planning and strategies, gift tax, insurance planning, investment strategies, planning for the elderly and planning for survivors.

Credits: 3**College:** School of Business**Schedule Type:** By Appointment - 1 student, Hybrid, Lecture, Lecture/On-Line**TAX 765: Tax of Flow-Through Entities**

This course provides an in-depth study of flow-through entities including S corporations, partnerships and limited liability companies. Emphasis will be focused on student's understanding of the tax statutes, court cases and practice techniques related to the concept of "choice of entity." This course creates an awareness of the potential consequences of choosing a particular form of entity. Topics covered include formation, operation, and dissolution of S corporations, partnerships and limited liability companies.

Credits: 3**College:** School of Business**Schedule Type:** By Appointment, Hybrid, Lecture**TAX 770: Retirement Plann & Empl Benef**

This course will cover all aspects of entities, types retirement and employee benefits plans. A focus will be placed on plan selection, with an emphasis on the tax advantages and disadvantages of specific types of qualified and nonqualified plans. Plan formation, administration, compliance and termination will be examined. Social Security, Medicare, life insurance and distributions from retirement plans will be examined. Various forms of executive compensation arrangements will be covered such as deferred compensation, golden parachutes, split dollar life insurance and stock option plans.

Credits: 3**College:** School of Business**Schedule Type:** Hybrid, Lecture, Lecture/On-Line**TAX 771: Adv Individual Taxatn & Plann****Credits:** 3**College:** School of Business**Schedule Type:** By Appointment - 1 student, Hybrid, Lecture

TAX 772: Risk Mgmt & Insurance Planning

This course is a comprehensive examination of risk management and insurance with a focus on its role in financial planning. Topics covered include the risk management process, life insurance, disability insurance, health insurance, long-term care insurance, property and liability insurance, annuities, Social Security, Medicare and Medicaid. Risk identification, risk analysis, loss prevention and legal principles related to insurance will also be covered.

Credits: 3

College: School of Business

Schedule Type: By Appointment - 1 student, By Appointment - 2 students, Hybrid, Lecture

TAX 773: International Taxation

This course focuses on the tax regime for U.S. taxpayers living abroad and the taxation of non-U.S. citizens with income earned or sourced in the United States. This course provides students with a working knowledge of the federal income tax rules applicable to international and cross-border transactions. Topics include tax treaties, foreign earned income exclusion, foreign tax credit, controlled foreign corporations, passive foreign investment companies, effectively connected (business) income, foreign investment in U.S. real estate, export transactions, Subpart F manufacturing rules and transfer pricing.

Credits: 3

College: School of Business

Schedule Type: Hybrid, Lecture

TAX 778: Current Iss in Taxation & Acct

This course will update students in various tax and accounting topics. Topics will include new development at the IRS and in areas such as individual taxation, business taxation, financial planning, business tax planning, multi-state tax issues, estate taxation and accounting and auditing pronouncements.

Credits: 3

College: School of Business

Schedule Type: Lecture

TAX 782: Tax Accounting

This course will review accounting methods and periods, installment method, long-term contracts and changes in accounting methods.

Credits: 3

College: School of Business

Schedule Type: Hybrid, Lecture, On-Line

TAX 789: Real Estate Taxation

Credits: 3

College: School of Business

Schedule Type: By Appointment - 1 student, Hybrid, Lecture

TAX 791: Internship

Credits: 6

College: School of Business

Schedule Type: Internship 3 Credits, Internship .5 Credits, Internship 6 Credits

TAX 793: State & Local Taxation

Emphasis will be placed on individual and corporate tax problem areas in the states of Pennsylvania, New Jersey and Delaware. Gross receipts and sales tax will also be covered.

Credits: 3

College: School of Business

Schedule Type: By Appointment - 1 student, Lecture, On-Line

TAX 794: IRS Tax Procedures

A complete review of audit, collection and appeal procedures conducted by the Internal Revenue Service will be examined by the students.

Credits: 3

College: School of Business

Schedule Type: Hybrid, Lecture, On-Line

TAX 795: Estate Planning & Taxation

This course will review mainly the estate and gift tax returns, such as preparation and problem areas. Deductions, income, annuities and taxable transfers will be discussed.

Credits: 3

College: School of Business

Schedule Type: By Appointment - 1 student, Hybrid, Lecture

TAX 797: Selected Topics

Content will vary in response to current issues.

Credits: 3

College: School of Business

Schedule Type: By Appointment - 1 student, Lecture

TAX 798: Independent Study

Credits: 3

College: School of Business

Schedule Type: Independent Study

TAX 799: Financial Planning Capstone

This course highlights the interrelationships among all aspects of the financial planning process with a focus on the application of the knowledge and skills that have been learned while taking the prerequisite courses in the Financial Planning curriculum. Critical thinking, analytical, research and communication skills will be emphasized and will culminate in the formulation of a comprehensive financial plan to be presented to a client.

Credits: 3

College: School of Business

Schedule Type: By Appointment - 1 student, Lecture

Textile (TEXT)

TEXT 601: Fiber and Yarn Studies

This course advances the knowledge of fibers and yarns. In the case of cotton and wool, a detailed study of how fibers are produced is made and how the properties and structure of fibers vary in relation to variability in growing conditions is explored. For man-made fibers, the length and fineness can be changed during manufacture depending on the type of system on which the yarn is to be produced. Yarn-processing systems are covered in detail along with faults that can result from various causes, in either the fiber or the machines. Quality-control procedures are emphasized at each stage of processing, along with methods for analyzing test results. Typical products are discussed from the point of view of type of fiber used and type of yarn structure.

Credits: 3

College: School of Design & Engineering

Schedule Type: Lab, Lecture, Lecture/Lab

TEXT 602: Textile Sustainability

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture, On-Line

TEXT 603: Adv Integ Engg Product Develop**Credits:** 3**College:** School of Design & Engineering**Schedule Type:** Lecture, Lecture/Lab**TEXT 613: Characterization Fibrous Mtrls****Credits:** 3**College:** School of Design & Engineering**Schedule Type:** Lecture**TEXT 621: Mechanics of Materials****Credits:** 3**College:** School of Design & Engineering**Schedule Type:** Lecture**TEXT 622: Mechanics of Textiles****Credits:** 3**College:** School of Design & Engineering**Schedule Type:** Lecture, Lecture/Lab**TEXT 624: Advanced Textile Composites****Credits:** 3**College:** School of Design & Engineering**Schedule Type:** Lab, Lecture**TEXT 625: Biomaterials Technology**

General introduction to the uses of artificial materials in the human body for the purposes of healing, correcting deformities and restoring lost function are presented. Topics include biocompatibility, techniques to minimize corrosion, and specific uses of materials in various tissues and organs.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture**TEXT 713: Coloration & Finishing Studies****Credits:** 3**College:** School of Design & Engineering**Schedule Type:** Lab, Lecture**TEXT 721: Analytical Methods**

Statistical process-control theories and methods are discussed, and applications toward optimizing both process and product quality in modern textile operations are considered. The objective of these studies is to develop a process/product control system for the progressive textile plant of today. Another major segment of this course will be the review and employment of various methods of analysis of experimental data. Various techniques, and their advantages and disadvantages, will be considered and studied using textile applications.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture**TEXT 751: Adv Woven Structures Prod Dev**

Independent pursuit of goals in the development of woven fabrics is emphasized. The student will complete three projects, with product-development skills enhancement as a primary goal. Each project will require a search of current literature, the use of CAD, selection of equipment, production of a prototype fabric and submission of a technical report. Two of the projects will be selected by the course advisor and the third will be student-selected.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture**TEXT 752: Advanced Knitted Structures**

This course is an in-depth study of weft- and warp-knitting technologies, fabric constructions, and apparel, home furnishing and industrial products/applications/markets. Weft-knit fabric technologies studied include single flat and tubular, double knit, fully fashioned, electronic, etc. Warpknit fabric technologies studied include tricot and raschel, weft inserted, double needle bar, multiaxial, etc. Students are exposed to a variety of weft- and warp-knitting machines, stitch constructions and mechanical and electronic design/ pattern mechanisms. Knit fabric geometry is analyzed on the machine, off the machine and after finishing. The relationship and interactions between the knitting yarn and knitting elements are well established. Knitting productivity and quality factors are emphasized.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture/Lab, Studio**TEXT 753: Adv Nonwoven Structur Prod Dev**

Nonwovens have a vast range of physical properties and end-use applications with an exceptionally high performance-to-price ratio. Such remarkable characteristics are possible due to the range of fiber type, bonding methods, and finishing methods possible at an exceptionally low cost. This course is intended to give a broad range of knowledge in nonwoven manufacturing methods cost and end-use applications and consumption. This will be accomplished by lecture, laboratory experiments, literature searches, research, cost analysis, statistical comparisons and modeling.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture, Lecture/Studio Combination, Studio**TEXT 754: Indstrl, Specialty Fab Prod Dev**

Industrial fabrics are used in a variety of applications other than consumer apparel and home furnishing products. For example, industrial fabrics are used in automotive trim, architectural fabric structure, awnings/outdoor furniture, aerostats, camping products, commercial/institutional interior trim and furnishings, composites, conveyor belts, filtration, geotextile and geomembrane applications, hazardous occupational products, marine products, military products, passive solar systems, sails, tarpaulins, tents, tires and window energy systems. This course is concerned with the study of major industrial-fabric applications and constructions. The performance requirements for each major industrial application will be related to the selection of specific fabric constructions. Trends in industrial fibers, yarn structures, fabric constructions, fabric finishing/coating/laminating and in fabrication of industrial products are reviewed for each major application. Each major application/market will be covered, wherein specific requirements and qualified fabric construction will be reviewed. The historical development of each application will be emphasized to demonstrate the impact of new materials/material forms/processing techniques on the dynamic nature of the industrial fabric business.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** On-Line, Studio**TEXT 755: Advanced Yarn Studies****Credits:** 3**College:** School of Design & Engineering**Schedule Type:** Lab, Lecture

TEXT 759: Product Evaluation

The processes for the evaluation of fabrics and products are examined. The use of product assessment as a tool for process and product improvement is emphasized. The complexity of the fiber, yarn, fabric and product-forming systems is such that it requires careful evaluation at each stage of the manufacturing process. A comprehensive understanding of the interrelationships of the fabric and product forming stages as related to their evaluation is developed. Established and innovative methods of evaluation are explored.

Credits: 3

College: School of Design & Engineering

Schedule Type: By Appointment - 2 students, By Appointment - 3 students, Lab, Lecture, Lecture/Lab

TEXT 762: Text, Appr Operatns Mgt

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture

TEXT 783: Chem of Fibrous Matrls

Credits: 3

College: School of Design & Engineering

Schedule Type: Lab, Lecture

TEXT 790: Quality Management

Quality has emerged as a formal management function. No longer restricted to manufacturing and operations areas, it now includes the design, purchasing and marketing processes. Through lecture, discussion and experiential activities, this course examines quality theory and practice ? how a more sophisticated understanding of quality can lead to a strategic approach to utility management which is necessary to compete in today?s world marketplace. Factors required for creating and maintaining a corporation?s strategic and competitive edge are thoroughly analyzed.

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture

TEXT 797: Selected Topics

Selected Topics

Credits: 3

College: School of Design & Engineering

Schedule Type: By Appointment - 1 student, Lecture

TEXT 798: Independent Study

Students may select an independent project or research topic with the approval of the dean of the School of Engineering & Textiles.

Credits: 3

College: School of Design & Engineering

Schedule Type: Independent Study

Textile Design (TXD)

TXD 600: Nonwovens Fabrication & Design

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture/Lab

TXD 615: Studio 1A: Conceptual Develmpt

This course is crafted to guide students through the development of their creative workflow and design process by investigating methods of visual, verbal, and written communication. It focuses on design research as an essential beginning for textile design studio work. Students in all concentrations will work on intensive projects that require them to consider their time management and expand their knowledge of studio resources.

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture, Lecture/Studio Combination, Studio

TXD 616: Studio 1B: Structures

This course will be delivered through lecture/studio sessions and will ensure that the student gains increasing knowledge of the technical and aesthetic structural aspects of knit, print or woven design. Projects will be devised to integrate knowledge and practice gained through design and technical courses, with the development of individual creative work in the chosen concentration (knit, print or weave).

Credits: 3

College: School of Design & Engineering

Schedule Type: Studio

TXD 617: Studio 1C:Text Mats &Processes

This course will be delivered through lecture/studio sessions and will ensure that the student gains increasing knowledge of fibers, yarns, textile formation methods and/or finishing processes of knit, print or woven textiles. Projects will be devised to integrate the knowledge and practice gained through design and technical courses, with the development of individual creative design work in the chosen concentration (knit, print or weave).

Credits: 3

College: School of Design & Engineering

Schedule Type: By Appointment - 1 student, Studio

TXD 625: Seminar

Weekly seminars will be arranged during the first semester, to which visiting speakers will be invited to give presentations on topics covering the national and international perspectives of marketing, technology and design in textile and related activities. Student participation will be expected during these seminars.

Credits: 0

College: School of Design & Engineering

Schedule Type: Hybrid, Lecture, On-Line

TXD 665: Design Management

The aim of this course is to create an awareness of the factors involved in the process of innovation and design, and the importance of establishing a policy and strategy, which will ensure that the design process is effectively promoted and managed to assist in the achievement of organizational goals. At the end of the course, students will be able to: (a) relate the process of design to corporate and product strategy; (b) describe the nature of the tasks undertaken by industrial innovators and designers; (c) prepare a brief for a design project; (d) monitor and evaluate the progress of a design project. They will also become aware of (a) the contribution made to the design process by systematic techniques such as value analysis and by specialist support staff; (b) the factors affecting creativity and innovation; (c) the link between product and manufacturing system design; (d) the legal protections offered to designers.

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture

TXD 742: Studio 2A: Sust Apps & Opps

Studio work involving advancing technical/creative projects in the chosen design concentration with the opportunity for interdisciplinary, collaborative work will be carried out throughout the semester. Project briefs are attenuated towards global concepts such as sustainability and end-use but are more open-ended to encourage an increasingly independent, individual design response.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Studio**TXD 743: Studio 2B: Adv Fiber Explorntn**

Studio work involving advancing technical/creative projects in the chosen design concentration with an emphasis on fiber selection will be carried out throughout the semester. Student design work at this point should progress from specifically directed project briefs to increasingly independent design responses.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** By Appointment - 1 student, Studio**TXD 744: Studio 2C: Text Prod & Purpose**

Studio work involving advanced-level technical/creative projects in the chosen design concentration exploring the impact textiles have in societal applications will be carried out throughout the semester. Student design work at this point should progress from specifically directed project briefs to increasingly independent, design responses.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Studio**TXD 749: Weave Technology II**

The variations, functions, auxiliary devices and design characteristics of dobby and Jacquard looms and the equipment used to support the weaving process will be studied. Calculations relating to production and materials will be considered, along with the accurate analysis of fabrics for weight and cover. Consideration will be given to size, texture, fiber type, weave and other fabric parameters. Advanced multilayered weaves will also be studied.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lab, Lecture, Lecture/Lab**TXD 750: Knitting Technology**

A further investigation into the construction, design and production of both weft- and warp-knitted fabrics. Lectures will be complemented with lab work involving the design, production and analysis of knit fabric upon power-knitting equipment.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lab, Lecture, Lecture/Lab**TXD 756: Advanced Jacquard**

The design and production of Jacquard fabrics will be studied. Students analyze designs and produce complex fabrics on commercial equipment using computerized design and production systems.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lab, Lecture, Lecture/Lab, Lecture/Studio Combination**TXD 772: Studio 3A: Thesis Development**

In this studio, extensive exploration and experimentation is undertaken by students focused on an area of specialization within their design concentration. This work will include conceptual design, ideation, market research, technical specifications, samples, curated collections, and end use visualization.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Studio**TXD 773: Design Studio III-B**

(a) Project The major project worked on independently by students during this final semester will be chosen to show the student's range of creative and technical ability. It will be concerned with a specialized area within their design concentration. Each project will be required to encompass: (1) design ideas and extensive sketchbook development; (2) market research and technical notebooks; (3) print Croquis and/or fabrics in sample form, production fabrics, computer-aided designs and final product rendered designs. (b) Final Exhibit The student will be expected to mount a personal design exhibit showing the range of his/her abilities in either knit, weave or print design. The work will be professionally presented and displayed for judging by a panel of design faculty. An important outcome of this exhibit will be the opportunity for key industrial people to visit, and for possible career opportunities to result. A secondary outcome will be its inspirational impact on undergraduate design students within the University.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Studio**TXD 774: Studio 3B: Thesis Collection**

a) Thesis Project/Collection The major project worked on independently by students during this final semester will be chosen to show the student's range of creative and technical ability. It will be concerned with a specialized area within their design concentration. Each project will be required to encompass: (1) design ideas and extensive sketchbook development; (2) market research and technical specifications; (3) print Croquis and/or fabrics in sample form; (4) final curated collection/body of work (b) Final Exhibition The student will mount a personal design exhibit showing the range of his/her abilities in either knit, weave or print design. The work will be professionally presented virtually and displayed for judging by a panel of design faculty. An important outcome of this exhibit will be the opportunity for key industry members to view the work and for possible career opportunities to result. A secondary outcome will be its inspirational impact on undergraduate design students within the University.

Credits: 2**College:** School of Design & Engineering**Schedule Type:** Studio**TXD 776: Textile Printing Technology**

A specialized and practical course in the principles, techniques and chemical processes involved in the printing of textiles. The chemistry and use of different dye classes and pigment systems; application printing; discharge, burnout and other styles; and the influence of thickeners, cloth preparation and fixation processes on quality and colorfastness are examined.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lab, Lecture, Lecture/Lab

TXD 777: Advanced Computer-Aided Design

This course focuses on both the conceptual and technical aspects of digital portfolio presentation for the textile designer. Students will use interactive media to create both a CD-ROM portfolio and a personal website. Course projects provide an in-depth exploration of Adobe Photoshop, Adobe Illustrator and multimedia design software. Students must have a clear understanding of Adobe Photoshop and Adobe Illustrator before enrolling in this course.

Credits: 3

College: School of Design & Engineering

Prerequisites: TXF 510 [Min Grade: C]

Schedule Type: By Appointment, Lecture, Lecture/Lab, Studio

TXD 780: Avd Drawn: Materials & Technq

This course is designed to further develop the design student's drawing abilities and creative thought process, while encouraging conceptual development and a deeper understanding of contemporary issues in art and design. This course will provide an in-depth exploration of line, color and materials using a variety of drawing tools while introducing a more conceptual approach to drawing. Students will participate in off-campus trips to galleries and museums.

Credits: 3

College: School of Design & Engineering

Prerequisites: DRAW 101 or VDRW 101 [Min Grade: D]

Schedule Type: Lecture, Lecture/Studio Combination, Studio

TXD 791S: Internship

Credits: 3

College: School of Design & Engineering

Schedule Type: Internship 3 Credits

TXD 797: Selected Topics:

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture

TXD 798: Independent Study

Students may select an independent project or research topic with the approval of the dean of the School of Engineering & Textiles.

Credits: 3

College: School of Design & Engineering

Schedule Type: Independent Study

Textile Foundation (TXF)

TXF 501: Foundation Fiber &Yarn Studies

This course introduces the basic knowledge of fiber and yarn technology. Included are the proper use of fiber/yarn terms and definitions, the construction parameters of the various fiber and yarn types and detailed analysis of performance properties for each. This information is then used in the proper selection of fibers and yarns for various fabrics and ultimately for various end-use textile products in apparel, household and industrial applications. This is a foundation course that does not count for credit toward the graduate degree.

Credits: 3

College: School of Design & Engineering

Schedule Type: Lab, Lecture, Lecture/Lab

TXF 502: Foundation Fabric Studies

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture, Studio

TXF 503: History of Textiles & Costumes

A multi-faceted survey of textiles and costumes from ancient cultures to the present, technical- and visual-design aspects of the textile arts, the influence of trade on design trends, styles in period costume and the sociological implications of dress are all incorporated. This is a foundation course that does not count for credit towards the graduate degree.

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture

TXF 504: Text Des Studio IV: Performanc

This is the final course in a sequence of four studios. This course enables students to create textiles for contract furnishings, automotive interiors, high performance apparel or smart textile applications. The studio emphasizes the marriage of performance characteristics and aesthetics, with a focus on fitness for use.

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture, Studio

TXF 505: Design I

This foundation design course explores the basic elements and principles of 2D and 3D form and their application in the design process. Line, shape, mass, space, texture and gray value are introduced as fundamental and interrelated components necessary in structuring solutions to problems in design. Projects are introduced which encourage students to express ideas in a visual/tactile context, while exploring the interaction of ideas and materials.

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture, Studio

TXF 506: Design II

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture, Studio

TXF 507: Design III

Credits: 3

College: School of Design & Engineering

Schedule Type: Lecture, Studio

TXF 510: Intro to Digital Imaging

This course focuses on increasing the student's individual level of computer literacy through the exploration of the basic structure of the operating system, general Internet skills and the fundamentals of 2D image making and web-design programs. Course projects provide hands-on experience with Adobe Photoshop, Adobe Illustrator and web design software. This is a foundation course that does not count for credit towards the graduate degree.

Credits: 3

College: School of Design & Engineering

Schedule Type: Lab, Lecture, Lecture/Lab

TXF 511: Knit Technology I

The understanding of both weft- and warp-knit fabrics through an investigation of knit construction, machinery, principles and knit fabric analysis. Lectures are complemented with a series of lab exercises on hand-flat equipment and fabric-analysis projects designed to fully acquaint the student with the principles of knit-fabric design and production.

Credits: 3

College: School of Design & Engineering

Schedule Type: Lab, Lecture, Lecture/Lab

TXF 512: Knit Design Studio I

Students will learn through individual development how to create a range of texture and color effects within knit design. Independent needle selection and the use of the presser foot will be explored within design areas involving Jacquard, held-stitch and tuck-stitch structures. Design ideas will be developed through to swatch/sketch proposals suitable for sweater production.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture, Lecture/Studio Combination, Studio**TXF 513: Knit Design Studio II**

A knit design studio elective for Textile or Fashion majors specializing in the knit-design area. Original design ideas will be developed through swatch/sketch presentations. Garment ideas will be developed through technical sketches and specifications into completed sweaters.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture, Lecture/Studio Combination, Studio**TXF 514: Print Design Studio I**

Techniques, materials, tools and basic information needed for the design on paper of printed fabrics for the apparel and home furnishing fields are studied. Hands on approaches with gouache and watercolor are used to prepare colorway and repeats. Students prepare a portfolio and learn to keep a sketchbook. A brief introduction to printing methods is included

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture, Studio**TXF 515: Print Design Studio II**

This course focuses on creative use of CAD in surface patterning, which integrates with hands-on design applications that students acquired in PRINT-303 Print Design I. Digital workflow, which includes scanning croquis, designing pattern on CAD, digital color matching and color ways will be introduced. At the same time, strong emphasis is placed on making croquis, which develop from drawings and paintings in the sketchbook. Students will create printed textile designs and patterns for Jacquard designs on paper with digital printers for apparel and home furnishing fields. Throughout the semester, sketchbook study will also be required to document the working process, as well as drawings and paintings.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture, Lecture/Studio Combination, Studio**TXF 516: Dyeing and Finishing****Credits:** 4**College:** School of Design & Engineering**Schedule Type:** Lab, Lecture**TXF 517: Weave Technology I**

The structures and analysis of woven fabrics will be studied utilizing CAD, pick outs and laboratory assignments on industrial equipment. Weave structures will include plain, twills and satins (with their derivatives), color effects, textural effects (cords, piques, etc.) and pile weaves. Fabric will be mathematically analyzed for weight, yarn size, fabric count and yarn crimp to specify fabric structure. Necessary loom controls (draw, chains and reed plans) will be used to relate lectures and laboratory work on dobby looms.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lab, Lecture, Lecture/Lab**TXF 518: Weave Design Studio I**

This course focuses on the effects and interactions that yarn, color, texture and structure play in woven design. Working with multi-harness floor looms and dobby looms, students create warps and chains, and weave prototype cloth for various end uses.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** Lecture, Lecture/Studio Combination, Studio**TXF 519: Weave Design Studio II**

The study of elements of woven design is brought to the problems of multi-layered cloth, compound weaves, block designs and other advanced structures. Students use several CAD programs in conjunction with AVL compu-dobbies to increase their design capabilities. Multi-harness floor looms and dobby looms are also used to develop cloth from concept to actuality.

Credits: 3**College:** School of Design & Engineering**Schedule Type:** By Appointment, Lecture, Lecture/Studio Combination, Studio**TXF 543: Color, Dyeing and Finishing**

This course presents an overview of color science and wet processing of fibers, yarns, and fabrics. Included are the preparation, dyeing, and finishing of textiles. Some emphasis is placed on the chemistry and technology involved in these operations. Dyes are studied by their method of application and the primary substrates to which they are applied. Chemical, thermal, and mechanical processes are discussed for both preparation and finishing of fabrics. This course may not be taken for credit by anyone who previously received credit for TEXTCHM242, TXF516 or C501.

Credits: 4**College:** School of Design & Engineering**Schedule Type:** Lecture, On-Line

Urban Design (GR) (MUD)

MUD 6XX: MUD Placeholder Course**Credits:** 0**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Lecture**MUD 600: Modeling Urban Enviro Perf**

This course aims to introduce principles, methods and applications of urban environmental performance simulations, and develop computational design workflows to integrate urban data exploration and environmental performance. The techniques introduced in this course are applicable at both architectural and urban scales; at its core, this course is about drawing with data, measuring environmental performance, and visualization for decision-making. Specifically, the simulation for urban environmental performance will include building energy use intensity and affiliated carbon emissions, solar energy potential, daylight, outdoor thermal comfort, visibility, neighborhood walkability, and access to green spaces and public transportation. The tools for iterative analytical explorations of the design and performance outputs will be also introduced, to allow students to not only determine the schemes with the optimum performance satisfying individual parameters, but also to explore the nuances of balancing trade-offs.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Lecture

MUD 601: MS: Sustainable & Smrt Cities

This introductory urban design studio will introduce fundamental concepts and methods of urban design, and explore sustainable and smart cities through four different scales: infrastructure, mobility, public space, and building. With the support of the other two courses on urban technology ("Advanced GIS - Urban Spatial Analytics" and "Modeling Urban Environmental Performance"), students will be able to use a variety of advanced analytical and simulation tools to "intelligently" design future neighborhoods and cities that are vibrant, healthy, and resilient. Specifically, various social and environmental indicators will be assessed and designed, such as accessibility to public transportation, amenities and green spaces, walkability, views, street vitality, daylight hours, and renewable energy potential. The studio will focus on the development of major metropolitan areas, and involve travel to large American cities, such as New York, Chicago, Los Angeles, Houston, and Philadelphia. Students will also have opportunities to engage with local practitioners, researcher and policymakers.

Credits: 6**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Studio**MUD 602: Hist & Theory of Urban Design**

This course analyzes major movements and theoretical constructs that have dominated urban design and the making of cities from pre-industrial periods to contemporary cities and megacities. Focus upon societal and environmental aspects, political and economic systems, scientific and technological changes, philosophical and ideological positions form the backdrop to an examination of the city as artifact and to decoding the meanings embedded within the urban fabric.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Seminar**MUD 603: MS: Towards Carbon Zero Cities**

Against the background of climate change and rapid urbanization, this research-based design studio (6 credits) aims to propose a Zero-Carbon City that is a resilient, compact, and car-free community, fully powered by renewable energy. Mass timber structural systems at both the building and urban scales will also be explored, in order to transform the city from a source of CO₂ into a carbon sink. Zero-Carbon City also proposes a closer, healthier, and more sustainable relationship between the city, people and nature. Various computational design and simulation tools will be taught and applied in the studio.

Credits: 6**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Studio**MUD 604: Emerg Dsgn &Tech Future Cities****Credits:** 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Hybrid, Lecture, On-Line**MUD 605: Adaptive Reuse Studio****Credits:** 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Studio**MUD 606: Master's Research Studio**

This 6-credit research studio challenges students to integrate knowledge and skills acquired throughout the curriculum and can be undertaken only after successful completion of appropriate coursework. Students will explore the historic and contemporary intersections among urban design, sustainability and technology by developing a self-directed, faculty monitored independent study through this studio. Possible research topics include: sustainable and resilient cities, urban data analytics, computational urban design, healthy and equitable cities, and histories and theories of urban design.

Credits: 6**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Studio**MUD 615: AdvGIS:Urban Spatial Analytics**

This advanced GIS course will cover topics in geospatial technology as related to the allied design disciplines: landscape architecture, architecture, urban design, planning and geodesign. The course prepares students to apply GIS within practical design processes such as site preparation and analysis; modeling terrains and hydrologic processes; integration of sustainable design criteria; and modeling the built environment in 3D. While this course will cover a broad suite of tools within the Esri ArcGIS platform, it will place heavy emphasis on raster-based GIS processes. This course will also feature workshops and/or presentations by professionals who use geospatial technology in various design disciplines. Cross-listed with GEOD-615 and cross-leveled with LARC-515

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Lecture, On-Line**MUD 617: Adv GIS: Urb Spat Analytics II**

This advanced GIS course will focus on analysis and modeling of urban structure and dynamics. The focus of this course is on preparing students to apply GIS processes within practical situations such as market research, real estate development, transportation modeling, and socio-economic analysis. While this course will cover a broad suite of tools within the Esri ArcGIS platform, it will place heavy emphasis on the real world context of data collection, cleaning and preparation for urban analytics. Exercises will include simulating and modeling urban transportation systems, analyzing and modeling urban growth, and predicting urban changes and impacts. This course will also feature workshops and/or presentations by professionals who use geospatial technology in various design disciplines.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Lecture, On-Line**MUD 621: Mst Std: Resilient Cities&Comm**

Students will take a trans-disciplinary approach to developing a campus or neighborhood scale-built environment project that integrates Socio-cultural, Experiential, Ecological and Performative design perspectives into a comprehensive regenerative design project. The first part of the semester will focus on the following: A comprehensive site inventory and analysis; comprehensive design requirements; guiding principles and resource benchmark. The second part of the semester focuses on the synthesis of the research to reach the highest levels of regeneration possible

Credits: 4**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Lecture, Studio

MUD 623: Std Comp: Eco Sys for Rsil Com

Landscape ecology is the study of landscapes and the critical role pattern plays in shaping interactions of species and ecosystems. As a multidisciplinary science it emphasizes the critical role landscape pattern plays in shaping interactions of all living species and ecosystems. Landscape ecology's conceptual and theoretical foundation links natural sciences with related human disciplines such as planning and design to understand spatial pattern and structure of landscapes. Landscape ecology also identifies the relationship between landscape pattern and process, the relationship of human activity to landscape pattern, process, and change, as well as the effect of scale and disturbance on landscapes. For this course students will identify, characterize, and interpret the rich interplay between spatial landscape pattern and process including where it originates, why it matters, and how it changes over time.

Credits: 2**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Lecture, Studio**MUD 631: Research Methodology**

This seminar guides students in the formulation of a research question tailored to the individual's professional goals whose original analysis and proposed solution contributes to the discourse in the field. Avenues of inquiry within the discipline are wide-ranging, encompassing either research-based or design-driven topics. Working with both faculty and professional advisors, each student investigates current debates relative to the topic, significant case studies and core literature, in addition to topic-specific research strategies. Through the thesis project, students demonstrate overall competency in principles, theory, practices and methodologies of urban design and research, as well as the acumen to perform independent research.

Credits: 3**College:** Jefferson Coll of Architecture & Built Environment**Schedule Type:** Seminar

Medical

A

- Anatomy (ANAT) (p. 551)
- Anesthesiology (ANES) (p. 551)

B

- Biochemistry (BIOC) (p. 551)

D

- Dermatology (DERM) (p. 552)

E

- Emergency Medicine (EMRG) (p. 552)

F

- Family Medicine (FMED) (p. 553)

G

- Graduate Center (GC) (p. 555)

H

- Health Policy (MD) (HPOL) (p. 555)
- Humanities (HUMN) (p. 555)

I

- Integrative Medicine (INT) (p. 555)
- Interdepartmental (MD) (IDPT) (p. 555)

J

- JeffMD (JMD) (p. 557)

M

- Medicine (MED) (p. 561)
- Microbiology (MD) (MICR) (p. 562)

N

- Neurology (NEUR) (p. 562)
- Neurosurgery (NSRG) (p. 563)

O

- Obstetrics-Gynecology (OBGY) (p. 563)
- Ophthalmology (OPHT) (p. 564)
- Oral & Maxillofacial Surgery (OMFS) (p. 564)
- Orthopedic Surgery (ORTH) (p. 564)
- Otolaryngology (OTOL) (p. 565)

P

- Pathology (MD) (PATH) (p. 565)
- Pediatrics (PED) (p. 566)
- Pharmacology (MD) (PHAR) (p. 567)
- Physiology (MD) (PHYS) (p. 567)
- Psychiatry & Human Behavior (PSYH) (p. 568)

R

- Radiation, Oncology, Nuclear Med (RONM) (p. 569)
- Radiology (RAD) (p. 569)
- Rehabilitation (RHAB) (p. 570)

S

- SKMC - Away Rotation (AWAY) (p. 570)
- SKMC LIC (LIC) (p. 570)
- Surgery (SURG) (p. 570)

U

- Urology (UROL) (p. 571)

V

- Vacation (VACA) (p. 572)

Anatomy (ANAT)

ANAT 100: Human Anatomy

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

ANAT 101: Histology

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

ANAT 105: Human Form & Development

College: Sidney Kimmel Medical College

Schedule Type: Lecture

ANAT 401: ABS - Topics In Anatomy

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

ANAT 402: Research

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

ANAT 403: Adv Neuronanatomy

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

ANAT 404: Topics In Gross Anatomy

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

ANAT 405: Cross-Sectional Anatomy

College: Sidney Kimmel Medical College

Schedule Type: Clinical

ANAT 425: Research- Anatomy

Departmental research is scheduled after consultation with the department and approval of a research project. Students may complete up to 12 credits (or 8 weeks) of research in Phase 3. Students wishing to count their research project towards the SI requirement in Phase 3, must receive permission from the SI Director and complete a capstone project.

College: Sidney Kimmel Medical College

Schedule Type: Clinical

Anesthesiology (ANES)

ANES 352: Anesthesiology Selective

Students will learn aspects of anesthesiology that should be understood by all practicing physicians. Preoperative evaluation, choice of appropriate anesthetic techniques, and postanesthetic problems that may develop are covered. Operating room experience demonstrates mask ventilation, the use of airway adjuncts, and endotracheal intubation. Offered at Thomas Jefferson University Hospital. (3 week clerkship)

College: Sidney Kimmel Medical College

Schedule Type: Clinical

ANES 401: General Anesthesia Sub-I

This comprehensive elective introduces the medical student to preoperative evaluation, intraoperative, and postoperative anesthesia management of surgical patients. Emphasis is placed on the principles of anesthesia (general and regional), physiology of various organ systems, anesthetic pharmacology and hemodynamic monitoring. The medical student works as a member of the anesthesia care team, interacting with staff anesthesiologists and residents. Hands on technical experience of establishing intravenous access, noninvasive/invasive hemodynamic monitoring, various airway management and regional anesthesia techniques are taught under close staff supervision. The operating room teaching is supplemented by twice weekly lectures. During their rotation, students do not have any overnight call obligations. The last week of rotation can be spent in the subspecialty of the student's choice, i.e. cardiac, neurosurgery, obstetrics anesthesia or acute pain management.

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

ANES 402: Regional Anesthesia Sub-I

This course introduces medical students to the different applications of regional anesthesia techniques for intraoperative and postoperative patient management. Students work with residents, fellows and attendings and get exposure to a variety of regional techniques and their surgical applications. Basics of ultrasound are taught. Hands on experience with performing nerve blocks on phantom models, are provided. Students are expected to make a 10-15 minute oral presentation on a relevant topic during their last week of rotation.

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

ANES 403: Acute Pain Management

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

ANES 404: Surgical Critical Care

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

ANES 405: Chronic Pain Management

College: Sidney Kimmel Medical College

Schedule Type: Clinical

ANES 425: Research- Anesthesiology

Departmental research is scheduled after consultation with the department and approval of a research project. Students may complete up to 12 credits (or 8 weeks) of research in Phase 3. Students wishing to count their research project towards the SI requirement in Phase 3, must receive permission from the SI Director and complete a capstone project.

College: Sidney Kimmel Medical College

Schedule Type: Clinical

ANES 486: Cardiac Surgery Intensive Care

College: Sidney Kimmel Medical College

Schedule Type: Clinical

ANES 498: Anesthesiology Away Elective

College: Sidney Kimmel Medical College

Schedule Type: Clinical

Biochemistry (BIOC)

BIOC 100: Biochemistry

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

BIOC 105: Molec & Cell Basis of Medicine**College:** Sidney Kimmel Medical College**Schedule Type:** Lecture**BIOC 401: Clinical Significant Topics****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical, Lab, Lecture**BIOC 405: Medical Informatics****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical

Dermatology (DERM)

DERM 352: Dermatology Selective**College:** Sidney Kimmel Medical College**Schedule Type:** Clinical**DERM 401: Dermatology Subinternship****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical, Lab, Lecture**DERM 402: Basic Dermatopathology****College:** Sidney Kimmel Medical College**Prerequisites:** DERM 401**Schedule Type:** Clinical**DERM 425: Research- Dermatology****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical**DERM 430: Advanced Topics in Dermatology**

This course will provide an opportunity to review a variety of topics in dermatology and get a proper knowledge base necessary to diagnose and treat common dermatologic conditions. Students will analyze literature on a variety of topics in Dermatology. Students will apply the information from medical literature to answer clinical questions. Students will be able to demonstrate a commitment to ethical principles pertaining to provision or withholding of care, confidentiality, informed consent, and conflicts of interest. At the end of the course, students will be able construct an effective teaching presentation on a topic of choice.

College: Sidney Kimmel Medical College**Schedule Type:** Lecture**DERM 481: Dermatology Elective****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical**DERM 482: Advanced Topics in Dermatology****College:** Sidney Kimmel Medical College**Schedule Type:** On-Line**DERM 498: Dermatology Away Elective****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical

Emergency Medicine (EMRG)

EMRG 350: Emergency Medicine Clerkship

Emergency Medicine is a 3-week clerkship during which students will work closely with Emergency Medicine attendings and residents in the diagnosis and management of patients who present to the Emergency Department. They will work in the Emergency Department as well as attend didactic lectures, clinical skill laboratories, and patient simulations during the clerkship. Students will also get the opportunity participate in the resident conferences. While all clinical experiences occur in Emergency Department based on students' assignment, all students will attend Orientation day and all Friday teaching/testing days at Jefferson. Offered at Jefferson University Hospital and affiliate locations. (3 week clerkship)

College: Sidney Kimmel Medical College**Schedule Type:** Clinical**EMRG 355: Emergency Medicine Clerkship****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical**EMRG 400: Emergency Med/Adv. Clin Skills****College:** Sidney Kimmel Medical College**Prerequisites:** (FMED 350 and MED 350 and OBGY 350 and PED 350 and PSYH 350 and SURG 350) [Min Grade: 1]**Schedule Type:** Clinical**EMRG 401: Emergency Medicine Sub-I**

Building on the knowledge learned in EMRG 350, students will continue to demonstrate appropriate initial evaluation and assessment of patients presenting to the Emergency Department with urgent and emergent medical and traumatic conditions.

College: Sidney Kimmel Medical College**Schedule Type:** Clinical**EMRG 402: Emergency Medicine Outpatient****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical**EMRG 403: Emergency Med Elective****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical**EMRG 404: Emerg Med Toxicology Elective**

To become competent in the evaluation, diagnosis and management of patients with toxic exposures who present to the Emergency Department (PC, MK, SBP). To understand basic pharmacodynamics of toxic ingestions and drug interactions (PC, MK).

College: Sidney Kimmel Medical College**Schedule Type:** Clinical**EMRG 405: Point-of-Care Ultrasound**

Through this elective in Emergency Point-of-care (POC) ultrasound, the rotating medical student should gain an understanding of the appropriate indications for POC ultrasound in the care of patients in the Emergency Department. Additionally, students will gain exposure to the technical and interpretive skills involved in performing POC ultrasound. Training will be supervised by Emergency Medicine faculty who are fellowship trained in POC ultrasound.

College: Sidney Kimmel Medical College**Schedule Type:** Clinical

EMRG 406: Wilderness & Environmental Med

BreckWild is 4 week educational experience designed for senior medical students with a goal of providing a comprehensive introduction to the field of wilderness and environmental medicine while gaining hands on experience and exposure to skills required for expedition planning, rescue and wilderness survival. Participants will have the opportunity to work towards their Fellowships in the Academy of Wilderness Medicine (FAWM). No prior experience is necessary to enroll in this course. More information about this course can be found at <https://breckwild.org>. Students must apply and be accepted before being registered. Additional tuition charge applies.

College: Sidney Kimmel Medical College

Schedule Type: Clinical

EMRG 424: Medical Toxicology

This is a poison control center-based elective where students will spend 50% of their time experiencing medical toxicology by way of telemedicine. This will incorporate traditional telephonic consultation with the lay public as well as hospital-based consult requests. This will feature working 1:1 with a Certified Specialist in Poison Information (RN & PharmD). The learner will also work directly with an attending toxicologist to provide formal video-based and bedside toxicology consultations. The remaining time will integrate weekly discussions on core toxicology concepts as well as scholarly project time. Learners will also be given the opportunity to participate in the monthly American College of Medical Toxicology National Grand Rounds Teleconference. Location: Children's Hospital of Philadelphia/Philadelphia Poison Control Center. (4 week rotation).

College: Sidney Kimmel Medical College

Schedule Type: Clinical

EMRG 425: Research- Emergency Med

Departmental research is scheduled after consultation with the department and approval of a research project. Students may complete up to 12 credits (or 8 weeks) of research in Phase 3. Students wishing to count their research project towards the SI requirement in Phase 3, must receive permission from the SI Director and complete a capstone project.

College: Sidney Kimmel Medical College

Schedule Type: Clinical

EMRG 426: Research

This elective rotation will provide the student with a concentrated research experience within this specialty discipline. The specific research project and tasks will be agreed upon by the student and faculty research mentor, and approved by the course director listed above. For this approval, the student must submit in writing to the course director a description of the proposed project, a list of goals for the month, and the name of the faculty mentor prior to scheduling this elective. Research form required to register.

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Reseach

EMRG 427: Telehealth Elective

This elective rotation will provide the student with a concentrated research experience within this specialty discipline. The specific research project and tasks will be agreed upon by the student and faculty research mentor, and approved by the course director listed above. For this approval, the student must submit in writing to the course director a description of the proposed project, a list of goals for the month, and the name of the faculty mentor prior to scheduling this elective.

College: Sidney Kimmel Medical College

Schedule Type: Clinical

EMRG 480: Wilderness & Disaster Emergenc

College: Sidney Kimmel Medical College

Schedule Type: Lecture

EMRG 481: Emergency Medicine Elective

This course in Emergency Medicine is intended for those pursuing specialties other than Emergency Medicine. Building on the knowledge learned in EMRG 350, students will continue to demonstrate appropriate initial evaluation and assessment of patients presenting to the Emergency Department with urgent and emergent medical and traumatic conditions. A modified version of this course is also offered as a 4-week course (EMGR 401).

College: Sidney Kimmel Medical College

Schedule Type: Clinical

EMRG 486: Wilderness Medicine

College: Sidney Kimmel Medical College

Schedule Type: Clinical

EMRG 495: Integrative Medicine

College: Sidney Kimmel Medical College

Schedule Type: Clinical

EMRG 498: Emergency Medicine Away Elect

College: Sidney Kimmel Medical College

Schedule Type: Clinical

Family Medicine (FMED)

FMED 350: Family Medicine Clerkship

Family Medicine is a 6-week clerkship during which students will focus on the diagnosis and management of acute and chronic problems in the outpatient setting; health maintenance, preventive medicine, psychosocial and life stage contexts, time management, and cost-effective delivery of care. Offered at Thomas Jefferson University Hospital and affiliate locations. (6 week clerkship)

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

FMED 351: Examination

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

FMED 352: Geriatrics Selective

College: Sidney Kimmel Medical College

Schedule Type: Clinical

FMED 355: Family Medicine Clerkship

College: Sidney Kimmel Medical College

Schedule Type: Clinical

FMED 401: Outpatient Sub-Internship

Students are given progressive responsibility, with supervision, for outpatient care. For the senior taking the rotation early in the academic year, emphasis is on developing skill in formulating an assessment and plan. For the advanced senior student, further teaching emphasis is on patient management and acute care. Students will enhance interpersonal skills in interview technique, understanding of the dynamics of the physician-patient relationship; and the reaction towards illness of physicians, patients, and the family. Students will develop primary care diagnostic, and psychosocial skills, promoting a positive transition to the intern year. Students will self-identify specific educational objectives for the rotation. Examples include honing physical exam skills, improving interview skills, improving time management skills, learning about practice planning and financial management.

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

FMED 402: Inpatient Sub-Internship

Students encounter the diverse range of medical conditions and complex multiple diagnoses typical of hospitalized patients and learn comprehensive patient management for hospitalized patients. The inpatient subinternship student in Family Medicine assumes a high level of responsibility for patient management. The student pre-rounds on his or her patients in the morning, checks labs, and writes orders. The student presents succinctly to the attending and resident team the diagnosis, assessment, and treatment plan; and is the primary point of care for the patient throughout their hospitalization. Medical, social, economic and psychological factors are addressed. Students participate in family meetings, including end-of-life and other complex decisionmaking processes. The student communicates with the patients' ambulatory physician, interacts with consultants, and arranges all necessary follow-up and aftercare.

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

FMED 403: Indian Health Preceptorship

Students may go to any of the Indian Health Service sites (a division of the US Department of Health and Human Services). IHS sites provide care exclusively for Native Americans. At IHS sites students take on considerable responsibility for patient care, and challenge themselves both medically and personally.

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

FMED 404: Elective Clerkship

Students may choose to take a four-week elective at another residency program, or go abroad. Students are expected to generate their own educational goals and objectives in advance.

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

FMED 405: Palliative Care

The student functions as a full-member of the Palliative Care team and rounds with the team on a daily basis. Responsibilities include seeing and evaluating patients, writing consultative notes, presenting to the Palliative Care team and communicating with the primary team about palliative care recommendations. Students also: 1. Attend daily morning rounds with Palliative Care Team 2. Participate and attend weekly didactic and Inter-disciplinary team (IDT) meetings with faculty, staff, palliative care fellows and residents. 3. Present a difficult case during weekly conference 4. Have an opportunity to participate in ongoing research projects or start their own research project.

College: Sidney Kimmel Medical College

Schedule Type: Clinical

FMED 406: Geriatrics Subinternship

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

FMED 407: Community Engagemt Experience

Students spend time attending and participating in community-based health education programs (including Diabetes Self-Management, Weight Management, Asthma, Nutrition, and Breast Health), screenings (including stroke, diabetes, blood pressure, and cholesterol) and meetings with the Center for Urban Health staff. Programs include the Healthy Corner Store Initiative, the STARS Advocacy Café at Nemours Pediatrics, diabetes group visit classes, diabetes prevention telehealth visits, Jeff Hope clinic, school health fairs and sports physicals. The student functions as a full member of the Center for Urban Health Staff. By the end of the block, students are expected to write a paper on a topic of their choice. This is an opportunity to explore an issue that you would like to learn more about, or follow-up on an experience you have in the clinic or in the community.

College: Sidney Kimmel Medical College

Schedule Type: Clinical

FMED 408: Comm Med in a Faith-Based Comm

College: Sidney Kimmel Medical College

Schedule Type: Clinical

FMED 409: Homeless Care Continuum

College: Sidney Kimmel Medical College

Schedule Type: Clinical

FMED 410: Appr to Obesity Control & Prev

College: Sidney Kimmel Medical College

Schedule Type: Clinical

FMED 411: Geriatrics-Elective

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

FMED 412: Sports Medicine Elective

College: Sidney Kimmel Medical College

Schedule Type: Clinical

FMED 413: Maternal-Child Health (MCH)

College: Sidney Kimmel Medical College

Schedule Type: Clinical

FMED 414: Clin Img Elect in Fam Med

College: Sidney Kimmel Medical College

Schedule Type: Clinical

FMED 415: Homecare

College: Sidney Kimmel Medical College

Schedule Type: Clinical

FMED 416: Global Health at Home

College: Sidney Kimmel Medical College

Schedule Type: Clinical

FMED 417: Global Urban Health

College: Sidney Kimmel Medical College

Schedule Type: Clinical

FMED 419: Immigrant Health Elective

College: Sidney Kimmel Medical College

Schedule Type: Clinical

FMED 421: Primary Care of People w IDD

College: Sidney Kimmel Medical College

Schedule Type: Clinical

FMED 425: Research - Family Medicine

Departmental research is scheduled after consultation with the department and approval of a research project. Students may complete up to 12 credits (or 8 weeks) of research in Phase 3. Students wishing to count their research project towards the SI requirement in Phase 3, must receive permission from the SI Director and complete a capstone project.

College: Sidney Kimmel Medical College

Schedule Type: Clinical

FMED 427: Outpatient Community Experienc

Students work with an experienced family physician in a community setting and participate in the daily life of the practice. The community practice experience will provide opportunities to appreciate population health in the contexts of prevention, treatment, family & community. Students are encouraged to engage the doctor and members of the practice team as they use individual, team, and systems-based approaches to patient care. Students may see patients in a variety of care settings and are encouraged to work on assessment and treatment planning skills. In addition, students should focus on the following aspects of the clinicians' practice: scope of practice, relationships with colleagues in procedural specialties, hospitalists, home care, long-term care, and school-based settings.

College: Sidney Kimmel Medical College

Schedule Type: Clinical

FMED 486: Geriatrics Elective

This is a 2-week elective, graded pass/fail. The four week version of this course is FMED 406: Geriatrics Subinternship.

College: Sidney Kimmel Medical College

Schedule Type: Clinical

FMED 498: Family Medicine Away Elective

College: Sidney Kimmel Medical College

Schedule Type: Clinical

Graduate Center (GC)

GC 700: Intro to Neuroscience

College: Sidney Kimmel Medical College

Schedule Type: Lecture

Health Policy (MD) (HPOL)

HPOL 401: Intro to Health Policy

College: Sidney Kimmel Medical College

Schedule Type: Lecture

HPOL 499: Health Policy

This one month-long senior elective will be conducted like a graduate school seminar in Health Policy. Students will be exposed to a wide range of topics including population health, healthcare quality and safety, and the future of our failing system. Students will be expected to come to class having done all the assigned readings, and we will have a socratic discussion on most days. Students will lead the discussion on certain days throughout the Block. Readings – 1. Students must purchase Nash DB, et al. Population Health: Creating a Culture of Wellness (3rd Edition) Jones & Bartlett, Burlington, MA, 2021. 2. There will be many other readings distributed in class covering some of the topics noted above.

College: Sidney Kimmel Medical College

Schedule Type: Lecture

Humanities (HUMN)

HUMN 999: Patient/Physician Relationship

Interactions between healers and patients involve exchanges of trust and expectations of outcomes that differ from the ordinary transactions of daily life. These relationships are incompletely defined by simple contracts. This multidisciplinary course draws on primary and secondary sources in medicine, philosophy, art, ethics, and theology to address the essential elements of the patient/healer relationship. These questions will be considered in the Greco-Roman/Judeo-Christian antiquity, Medieval and early Renaissance Europe, 19th century industrial revolution, and the US in the 21st century.

College: Sidney Kimmel Medical College

Schedule Type: Lecture

Integrative Medicine (INT)

INT 425: Research

College: Sidney Kimmel Medical College

Schedule Type: Independent Study

INT 495: Integrative Medicine

College: Sidney Kimmel Medical College

Schedule Type: Clinical

Interdepartmental (MD) (IDPT)

IDPT 101: ICM-First Aid Medicine/Emerg.

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

IDPT 102: Phys Approach to Patient Care

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

IDPT 105: The Systems

College: Sidney Kimmel Medical College

Schedule Type: Lecture

IDPT 110: Life Cycle

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

IDPT 111: Intro to Clinical Medicine I

College: Sidney Kimmel Medical College

Schedule Type: Lecture

IDPT 120: Nutrition

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

IDPT 121: Ethics

College: Sidney Kimmel Medical College
Schedule Type: Clinical, Lab, Lecture

IDPT 122: Genetics

College: Sidney Kimmel Medical College
Schedule Type: Clinical, Lab, Lecture

IDPT 123: Information Retrieval Techniq

College: Sidney Kimmel Medical College
Schedule Type: Clinical, Lab, Lecture

IDPT 124: Health Policy

College: Sidney Kimmel Medical College
Schedule Type: Clinical, Lab, Lecture

IDPT 125: Biostatistics

College: Sidney Kimmel Medical College
Schedule Type: Clinical, Lab, Lecture

IDPT 140: Problem Based Learning I

College: Sidney Kimmel Medical College
Schedule Type: Clinical, Lab, Lecture

IDPT 141: Medical Humanities I

College: Sidney Kimmel Medical College
Schedule Type: Clinical, Lab, Lecture

IDPT 142: Practicum in Health Care I

College: Sidney Kimmel Medical College
Schedule Type: Clinical, Lab, Lecture

IDPT 144: Problem Based Learning II

College: Sidney Kimmel Medical College
Schedule Type: Clinical, Lab, Lecture

IDPT 145: Medical Humanities II

College: Sidney Kimmel Medical College
Schedule Type: Clinical, Lab, Lecture

IDPT 146: Practicum in Health Care II

College: Sidney Kimmel Medical College
Schedule Type: Clinical, Lab, Lecture

IDPT 150: The System: Neurosciences

College: Sidney Kimmel Medical College
Schedule Type: Clinical, Lab, Lecture

IDPT 180: January Plan Elective-1

College: Sidney Kimmel Medical College
Schedule Type: Clinical, Lab, Lecture

IDPT 181: January Plan Elective-2

College: Sidney Kimmel Medical College
Schedule Type: Clinical, Lab, Lecture

IDPT 200: Foundations of Path/Pharm

College: Sidney Kimmel Medical College
Schedule Type: Lecture

IDPT 201: Intro to Clinical Medicine II

College: Sidney Kimmel Medical College
Schedule Type: Lecture

IDPT 202: Found. of Clinical Medicine

College: Sidney Kimmel Medical College
Schedule Type: Clinical, Lab, Lecture

IDPT 203: ICM-Clerkship

College: Sidney Kimmel Medical College
Schedule Type: Clinical, Lab, Lecture

IDPT 204: Physical Diagnosis

College: Sidney Kimmel Medical College
Schedule Type: Clinical

IDPT 220: Contemp. Issues in Medicine

College: Sidney Kimmel Medical College
Schedule Type: Clinical, Lab, Lecture

IDPT 221: Health of the Public

College: Sidney Kimmel Medical College
Schedule Type: Clinical, Lab, Lecture

IDPT 223: Law and Medicine

College: Sidney Kimmel Medical College
Schedule Type: Clinical, Lab, Lecture

IDPT 224: Clinical Reasoning

College: Sidney Kimmel Medical College
Schedule Type: Clinical, Lab, Lecture

IDPT 280: January Plan Elective-1

College: Sidney Kimmel Medical College
Schedule Type: Clinical, Lab, Lecture

IDPT 400: Neurology/Rehabilitation Med

College: Sidney Kimmel Medical College
Schedule Type: Clinical

IDPT 410: Surgical Subspecialties

College: Sidney Kimmel Medical College
Schedule Type: Clinical

IDPT 420: Scientific Found of Clin Med

College: Sidney Kimmel Medical College
Schedule Type: Clinical

IDPT 425: Research- Interdepartmental

College: Sidney Kimmel Medical College
Schedule Type: Clinical

IDPT 430: Advocacy

Course requires permission of instructor to register.

College: Sidney Kimmel Medical College
Schedule Type: Clinical

IDPT 440: Interprof Healthcare System

College: Sidney Kimmel Medical College
Schedule Type: Clinical

IDPT 451: Examination

College: Sidney Kimmel Medical College
Schedule Type: Clinical

IDPT 461: Examination

College: Sidney Kimmel Medical College
Schedule Type: Clinical

IDPT 471: Examination

College: Sidney Kimmel Medical College
Schedule Type: Clinical

IDPT 472: Clinical Knowledge

College: Sidney Kimmel Medical College
Schedule Type: On-Line

IDPT 482: Service Learning

This is an online, interactive course meant for fourth year medical students interested in service learning in the context of researching, identifying a patient/system/clinician need, and developing a viable solution.

College: Sidney Kimmel Medical College
Schedule Type: On-Line

IDPT 495: Integrative Medicine

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Research

JeffMD (JMD)

JMD 101: Foundations of Medicine I

The Foundations of Medicine course is an integrated, 21-month course that encompasses both basic and clinical sciences. Students will be introduced to core concepts in blocks organized by organ system. Each week features a case explored through active learning in small groups. The schedule incorporates a variety of learning modalities such as labs, clinical skills sessions, patient sessions, team based learning activities and lectures to complement and enhance student learning. Foundations of Medicine expects from students rigorous independent study and critical thinking to prepare them for the clinical problems they will encounter. The blocks covered in this course are Introduction to the Study of Medicine, Host Defense and Blood, and Cardiology. Taken in Year 1, Fall semester.

College: Sidney Kimmel Medical College

Schedule Type: Lecture

JMD 102: Foundations of Medicine II

A continuation of JMD 101, the Foundations of Medicine course is an integrated, 21-month course that encompasses both basic and clinical sciences. Students will be introduced to core concepts in blocks organized by organ system. Each week features a case explored through active learning in small groups. The schedule incorporates a variety of learning modalities such as labs, clinical skills sessions, patient sessions, team-based learning activities and lectures to complement and enhance student learning. Foundations of Medicine expects from students rigorous independent study and critical thinking to prepare them for the clinical problems they will encounter. The organ systems covered in this course are Pulmonary, GI/ Liver, and Renal. Taken in Year 1, Spring semester.

College: Sidney Kimmel Medical College

Schedule Type: Lecture

JMD 150: Scholarly Inquiry

Scholarly Inquiry aims to provide students with a wide range of skills and experiences that they need to become critical consumers and producers of medical knowledge. Students select from eight tracks (Clinical Translational Research, Design, Digital Health, Health Policy, Healthcare Systems, Humanities, Medical Education, and Population Health), receive training in a wide range of research domains and topics, and complete self-directed scholarly projects under the supervision of faculty mentors. Educational modalities include lectures, small-group seminars, workshops, team-based and problem-based learning sessions, and online modules. In their first year, students prepare and present a proposal for an independent scholarly project, and start work on its implementation. Taken Year 1.

College: Sidney Kimmel Medical College

Schedule Type: Lecture

JMD 151: Clinical Experience

Clinical Experience is a service-learning course which will provide students with an understanding of the broader context of health through interaction with patients, families, clinical staff and community-based service providers. Beginning November of the first year of medical school and extending through Phase 1, students will return to their assigned clinical sites to learn about healthcare delivery and interprofessional teamwork. Students will receive training and tools to act as health navigators. Under the supervision of a community health worker and in collaboration with clinic staff, students will learn to address the underlying social and environmental factors that impact health. The Clinical Experience schedule will alternate between shifts in the clinical site and sessions structured for reflection and ongoing education. Taken Year 1.

College: Sidney Kimmel Medical College

Schedule Type: Clinical

JMD 152: Humanities Selectives

Strengthen key skills of doctoring through engagement in the arts and humanities. These skills include close observation, listening, emotional awareness and empathy, self-care, comfort with ambiguity and making mistakes, team and interpersonal communication, understanding the perspectives of patients and colleagues, and understanding social contexts of health. The Humanities Selectives are immersive, arts-based experiences and participation-oriented seminars that promote support and bonding between classmates and offer creative respite within medical school. In many cases, these courses are developed by professional artists in collaboration with medical educators and reflect unique syntheses of medicine and the humanities. Students may complete JMD 152 for one or two credits. Students choosing to complete JMD 152 for one credit will be expected to complete JMD 252 for one credit the following year.

College: Sidney Kimmel Medical College

Schedule Type: Lecture

JMD 153: Humanities Selectives

College: Sidney Kimmel Medical College

Schedule Type: Lecture

JMD 201: Foundations of Medicine III

A continuation of JMD 102, the Foundations of Medicine course is an integrated, 21-month course that encompasses both basic and clinical sciences. Students will be introduced to core concepts in blocks organized by organ system. Each week features a case explored through active learning in small groups. The schedule incorporates a variety of learning modalities such as labs, clinical skills sessions, patient sessions, team-based learning activities and lectures to complement and enhance student learning. Foundations of Medicine expects from students rigorous independent study and critical thinking to prepare them for the clinical problems they will encounter. The organ systems covered in this course are Urology, Endocrine, and Reproduction as well as Musculoskeletal/ Integumentary. Taken in Year 2, Fall semester.

College: Sidney Kimmel Medical College

Schedule Type: Lecture

JMD 202: Foundations of Medicine IV

A continuation of JMD 201, the Foundations of Medicine course is an integrated, 21-month course that encompasses both basic and clinical sciences. Students will be introduced to core concepts in blocks organized by organ system. Each week features a case explored through active learning in small groups. The schedule incorporates a variety of learning modalities such as labs, clinical skills sessions, patient sessions, team-based learning activities and lectures to complement and enhance student learning. Foundations of Medicine expects from students rigorous independent study and critical thinking to prepare them for the clinical problems they will encounter. The blocks in this course are Neuroscience and Psychiatry, as well as Complex Cases. Taken Year 2, Spring semester.

College: Sidney Kimmel Medical College

Schedule Type: Lecture

JMD 250: Scholarly Inquiry

Scholarly Inquiry aims to provide students with a wide range of skills and experiences that they need to become critical consumers and producers of medical knowledge. Students select from eight tracks (Clinical Translational Research, Design, Digital Health, Health Policy, Healthcare Systems, Humanities, Medical Education, and Population Health), receive training in a wide range of research domains and topics, and complete self-directed scholarly projects under the supervision of faculty mentors. Educational modalities include lectures, small-group seminars, workshops, team-based and problem-based learning sessions, and online modules. In their second year, students complete their scholarly project and present their work (poster, oral presentation, and abstract). Taken Year 2.

College: Sidney Kimmel Medical College

Schedule Type: Lecture

JMD 251: Clinical Experience

Clinical Experience is a service-learning course which will provide students with an understanding of the broader context of health through interaction with patients, families, clinical staff and community-based service providers. Students will return to their assigned clinical sites to continue to learn about healthcare delivery and inter-professional teamwork. Students will receive additional training and tools to act as health navigators. Under the supervision of a community health worker and in collaboration with clinic staff, students will address the underlying social and environmental factors that impact health. The Clinical Experience schedule will alternate between shifts in the clinical site and sessions structured for reflection and ongoing education.

College: Sidney Kimmel Medical College

Schedule Type: Clinical

JMD 252: Humanities Selectives

Strengthen key skills of doctoring through engagement in the arts and humanities. These skills include close observation, listening, emotional awareness and empathy, self-care, comfort with ambiguity and making mistakes, team and interpersonal communication, understanding the perspectives of patients and colleagues, and understanding social contexts of health. The Humanities Selectives are immersive, arts-based experiences and participation-oriented seminars that promote support and bonding between classmates and offer creative respite within medical school. In many cases, these courses are developed by professional artists in collaboration with medical educators and reflect unique syntheses of medicine and the humanities. JMD 252 is a continuation of JMD 152 for students who need one additional credit and is not mandatory for students who have completed 2 credits in JMD 152. Taken in Year 2.

College: Sidney Kimmel Medical College

Schedule Type: Lecture

JMD 299: Licensure Exam Prep

College: Sidney Kimmel Medical College

Schedule Type: Independent Study

JMD 300: Transition to Clerkship

This mandatory one-week course kicks off Phase 2 with essential skills training for students starting clinical clerkships. Sessions focus on expectations, use of electronic medical record, developing clinical reasoning skills, and success strategies. Small group workshops focus on oral presentation and note writing, as well as basic procedures. Taken at the end of Year 2, prior to beginning Phase 2 clerkships.

College: Sidney Kimmel Medical College

Schedule Type: Clinical

JMD 301: Dimensions of Clin Med

The goal of this course is to expose students to various interdisciplinary topics in the context of clinical medicine and reflect on complexities and many influences that affect the practice of medicine. This course consists of 7 curricular sessions that will run every 6 weeks during Phase 2, and includes reflection sessions and observed patient encounters. Students will also be exposed to a variety of topics that focus on residency selection and application process. End-of-Phase 2 OSCE is the final assessment for this course.

College: Sidney Kimmel Medical College

Schedule Type: Clinical

JMD 302: Clinical Continuum

College: Sidney Kimmel Medical College

Schedule Type: Lecture

JMD 350: Scholarly Inquiry

During this mandatory phase-long course, students will continue to develop their scholarly inquiry projects. Under guidance of their mentors, students will assemble a portfolio of their scholarly work, and begin planning for a capstone scholarly project.

College: Sidney Kimmel Medical College

Schedule Type: Clinical

JMD 425: Research - Scholarly Inquiry

JMD 425 allows a student to pursue research in a field outside a traditional clinical department and to continue SI work started in Phase 1 or Phase 2. Research electives provide the opportunity for students to work with faculty to complete research for academic credit. Students must have a research project approved by the corresponding department prior to registration. Students wishing to have their research project fulfill the SI requirement in Phase, must receive permission from the SI director and complete a capstone project.

College: Sidney Kimmel Medical College

Schedule Type: Independent Study

JMD 428: Independent Elective

College: Sidney Kimmel Medical College

Schedule Type: Independent Study

JMD 440: The Creative Clinician

Creative Clinician focuses on strengthening observational skills through drawing, and on experimenting with different artistic media and creative processes. Throughout the course, we'll investigate traditional wet and dry drawing materials like graphite, ink, and watercolor, as well as digital media. The entire class will participate in a month-long collaborative "exquisite corpse" project, and each student will work one-on-one with the instructor to develop and complete an individual final project. Students will gain the vocabulary to describe visual works of art and offer meaningful feedback to their peers, while regular readings and discussions will introduce students to different theories of art.

College: Sidney Kimmel Medical College

Schedule Type: Lecture

JMD 441: The Medical Memoir

This course will provide an opportunity for learners to reflect on their lives in medicine so far and on the situations and people that have touched them within the profession, and to craft these reflections into compelling stories. These stories may be intended for a medical audience or a general audience, but will offer insights into the experience of caring for patients and/or the experience of being a patient.

College: Sidney Kimmel Medical College

Schedule Type: Lecture

JMD 442: Problems in the History of Med

This course seeks to examine the roots of some of today's problems in healthcare and the complex factors that shape our healthcare system. Learning about healthcare's past will help us contextualize healthcare today and posit its future.

College: Sidney Kimmel Medical College

Schedule Type: Lecture

JMD 450: Scholarly Inquiry

College: Sidney Kimmel Medical College

Schedule Type: Independent Study

JMD 460: Biochem & Evidence-Based Med.

The goal of this elective is to provide students with further and unique training in biochemistry, genetics, biostatistics, and evidence-based medicine. Course work will focus on analyzing clinical cases, ordering & interpreting diagnostics, and judging relevant clinical trials. Students will perform guided literature searching, work in groups and present their findings to their peers.

College: Sidney Kimmel Medical College

Schedule Type: Lecture, On-Line

JMD 461: Adv. Concepts in Microbiology

To improve student understanding of basic microbiology and clinically relevant bacteria, mycobacteria, and fungi, including how these organisms are identified in the laboratory and how the results we receive as clinicians inform patient care.

College: Sidney Kimmel Medical College

Schedule Type: Hybrid, On-Line

JMD 462: Adv. Study of Transfusion Med.

A two week mixed format course dedicated to transfusion medicine.

This course is structured around multiple learning experiences, including multiple short virtual lectures, case-based asynchronous online learning, and a tour of the blood bank.

College: Sidney Kimmel Medical College

Schedule Type: Hybrid, On-Line

JMD 463: Adv. Study of Muscul. Diseases

This two-week online course will cover the pathophysiology underlying a mechanism-based approach to diagnosis and treatments for common musculoskeletal (MSK) disorders and diseases using case-based learning. Advanced cases incorporate multiple stages of the disease/disorder spanning periods of childhood, adolescence, early and late adulthood. Treatment categories include pharmacological, surgical, therapeutic, and lifestyle modifications.

College: Sidney Kimmel Medical College

Schedule Type: Lecture, On-Line

JMD 464: Adv. Study of Neuro. Diseases

This two-week online course will cover the pathophysiology underlying a mechanism-based approach to diagnosis and treatments for common neurological disorders using case-based learning. Advanced cases are tailored to incorporate multiple stages of one or more diseases/disorders spanning periods of childhood, adolescence, early and late adulthood. Treatment categories include pharmacological, surgical, therapeutic, and lifestyle modifications.

College: Sidney Kimmel Medical College

Schedule Type: Lecture, On-Line

JMD 465: Clinic. Action. Mol. Pathology

A two week mixed-format course on molecular pathology with a focus on clinically actionable molecular targets. This course is structured around multiple learning aetiologies, including multiple "mini" online lectures, case based learning, as well as attendance to at least one molecular focused tumour board.

College: Sidney Kimmel Medical College

Schedule Type: Hybrid, Lecture

JMD 466: Integrative Medicine

This a two week online course highlighting evidence based approaches used in integrative medicine that can benefit patient care, regardless of the specialty (i.e. patients do not have to be seen at an integrative medicine practice in order to utilize these approaches).

College: Sidney Kimmel Medical College

Schedule Type: Lecture, On-Line

JMD 467: Clinical Pharmacology

This two-week online course introduces the discipline of clinical pharmacology. Content is based on a previously taught ABS course Clinical Pharmacology. Although clinicians can become board-certified in Clinical Pharmacology, the concepts can be applied by clinicians in any specialty.

College: Sidney Kimmel Medical College

Schedule Type: On-Line

JMD 468: Approaches to Pain & Addict.

This is a two week hybrid course highlighting the use of opioids and other analgesics in multimodal targeted analgesia and the role of medication in addiction medicine. Opportunities will be available to participate in "live" and on-sessions.

College: Sidney Kimmel Medical College

Schedule Type: Hybrid, Lecture

JMD 469: BLOOD

Two week online course about blood disorders, including leukemias, pro-thrombotic disorders, bleeding disorders, and heritable anemias. This course is structured around multiple learning experiences, including multiple short virtual lectures, case-based learning, and online small group presentation.

College: Sidney Kimmel Medical College

Schedule Type: On-Line

JMD 470: Advanced Concepts- Immunology

Students will increase their understanding of the components of the innate and adaptive immune system and how these systems are regulated, the ways in which the immune system contributes to the appropriate response to pathogens and to the inappropriate development of autoimmune responses. Students will learn to apply this knowledge to the management of clinical scenarios and explore new and evolving knowledge and research in basic and clinical immunology.

College: Sidney Kimmel Medical College

Schedule Type: On-Line

JMD 474: Advanced Diagnostics

A two week online case-based course on diagnostic medicine including aspects of pathology, radiology, and laboratory medicine. This course is structured around doing one literature review and four cases using online discussion boards and survey tools. Besides the diagnostic component, each case will also have an overarching "theme", including principles of testing, critical evaluation of literature, barriers to diagnosis, and financial cost of diagnosis. This course is created as a collaboration between the Pathology and Radiology departments.

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lecture

JMD 476: Pandemic Preparedness

College: Sidney Kimmel Medical College

Schedule Type: On-Line

JMD 480: Anatomy&Path- Musculoskeletal

This is a focused course designed to supplement select critical knowledge areas and competencies in the anatomical sciences and pathology for fourth year medical students. This course will rely heavily on active learning in laboratory Dissection teams and Presentations and Case-Based Learning sessions.

College: Sidney Kimmel Medical College

Schedule Type: Clinical

JMD 481: Anatomy&Path- Neurosciences

This is a focused course designed to supplement select critical knowledge areas and competencies in the anatomical sciences and pathology for fourth year medical students. This course will rely heavily on active learning in laboratory Dissection teams and Presentations and Case-Based Learning sessions.

College: Sidney Kimmel Medical College

Schedule Type: Clinical

JMD 482: Anatomy&Path- Head and Neck

This is a focused course designed to supplement select critical knowledge areas and competencies in the anatomical sciences and pathology for fourth year medical students. This course will rely heavily on active learning in laboratory Dissection teams and Presentations and Case-Based Learning sessions.

College: Sidney Kimmel Medical College

Schedule Type: Clinical

JMD 483: Anatomy&Path- Thorax

This is a focused course designed to supplement select critical knowledge areas and competencies in the anatomical sciences and pathology for fourth year medical students. This course will rely heavily on active learning in laboratory Dissection teams and Presentations and Case-Based Learning sessions.

College: Sidney Kimmel Medical College

Schedule Type: Clinical

JMD 484: Anatomy&Path- Abdomen

This is a focused course designed to supplement select critical knowledge areas and competencies in the anatomical sciences and pathology for fourth year medical students. This course will rely heavily on active learning in laboratory Dissection teams and Presentations and Case-Based Learning sessions.

College: Sidney Kimmel Medical College

Schedule Type: Clinical

JMD 485: Anatomy&Path- Pelvis/Perineum

This is a focused course designed to supplement select critical knowledge areas and competencies in the anatomical sciences and pathology for fourth year medical students. This course will rely heavily on active learning in laboratory Dissection teams and Presentations and Case-Based Learning sessions.

College: Sidney Kimmel Medical College

Schedule Type: Clinical

JMD 486: Anatomy&Path- Trunk

This is a focused course designed to supplement select critical knowledge areas and competencies in the anatomical sciences and pathology for fourth year medical students. This course will rely heavily on active learning in laboratory Dissection teams and Presentations and Case-Based Learning sessions.

College: Sidney Kimmel Medical College

Schedule Type: Clinical

JMD 490: Gateway to Internship - Part 1

College: Sidney Kimmel Medical College

Schedule Type: Lecture

JMD 491: Gateway to Internship - Part 2

College: Sidney Kimmel Medical College

Schedule Type: Lecture

JMD 492: Gateway to Internship - Part 3

College: Sidney Kimmel Medical College

Schedule Type: Lecture

JMD 493: Gateway to Internship - Part 4

College: Sidney Kimmel Medical College

Schedule Type: Clinical

JMD 494: Gateway to Internship A

College: Sidney Kimmel Medical College

Schedule Type: Lecture

JMD 495: Gateway to Internship B

College: Sidney Kimmel Medical College

Schedule Type: Lecture

JMD 499: Gateway to Internship

College: Sidney Kimmel Medical College

Schedule Type: Lecture

JMD 500: Outpatient Experience

College: Sidney Kimmel Medical College

Schedule Type: Clinical

JMD 999: Intended Research Elective

College: Sidney Kimmel Medical College

Schedule Type: Clinical

Medicine (MED)

MED 350: Internal Medicine Clerkship

During Internal Medicine clerkship, students will acquire knowledge and skills required to care for adult patients in the hospital environment.

This is an eight-week experience; students spend four weeks at the Thomas Jefferson University Hospital, and four weeks at one of our academic affiliates, allowing for exposure to a diverse group of patients. Clinical experiences and didactics focus on pathophysiology, diagnosis, and management of disease processes commonly seen in internal medicine and requiring hospitalization. Additional projects will help hone procedural skills, focus on evidence-based and cost-conscious care, and apply literature review to patient care. Students partake in team based care of patients, and will learn the roles and responsibilities of various healthcare professionals. Offered at Thomas Jefferson University Hospital and affiliate locations (8 weeks total, two 4-week rotations).

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

MED 351: Examination

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

MED 352: Primary Care Selective

College: Sidney Kimmel Medical College

Schedule Type: Clinical

MED 355: Medicine Clerkship

College: Sidney Kimmel Medical College

Schedule Type: Clinical

MED 401: Inpatient Subinternship

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

MED 402: Outpatient Sub Internship

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

MED 411: Clinical Nutrition

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

MED 421: General Ambulatory Medicine

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

MED 425: Research- Medicine

Departmental research is scheduled after consultation with the department and approval of a research project. Students may complete up to 12 credits (or 8 weeks) of research in Phase 3. Students wishing to count their research project towards the SI requirement in Phase 3, must receive permission from the SI Director and complete a capstone project.

College: Sidney Kimmel Medical College

Schedule Type: Clinical

MED 426: Research

College: Sidney Kimmel Medical College

Schedule Type: Clinical

MED 430: Advanced Topics in Medicine

College: Sidney Kimmel Medical College

Schedule Type: Lecture

MED 431: Hematology

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

MED 433: Hematology/Oncology

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

MED 434: Hemat Malig/Bone Marrow Trans

College: Sidney Kimmel Medical College

Schedule Type: Clinical

MED 436: Advanced Topics in Medicine

College: Sidney Kimmel Medical College

Schedule Type: On-Line

MED 441: Nephrology

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

MED 450: Nephrology Outpatient Elective

College: Sidney Kimmel Medical College

Schedule Type: Clinical

MED 451: Cardiology/Electrocardiography

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

MED 452: Cardiology Outpatient Elective

College: Sidney Kimmel Medical College

Schedule Type: Clinical

MED 455: Cardiology-Acute Care

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

MED 457: Cardiology

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

MED 458: Cardiac Critical Care

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

MED 459: Outpatient Pulmonary Medicine

College: Sidney Kimmel Medical College

Schedule Type: Clinical

MED 467: Pulmonary

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

MED 469: Medical Critical Care

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

MED 473: Infectious Disease

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

MED 474: Adv Physical Diag

College: Sidney Kimmel Medical College

Schedule Type: Clinical

MED 475: Clinical Skills**College:** Sidney Kimmel Medical College**Schedule Type:** Clinical**MED 476: Human Adap Adean Man****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical**MED 477: Allergy****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical, Lab, Lecture**MED 478: Hepatology****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical, Lab, Lecture**MED 479: Gastroenterology****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical, Lab, Lecture**MED 481: Geriatric Medicine****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical, Lab, Lecture**MED 482: Heart Failure Elective****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical**MED 485: Nutrition****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical**MED 487: Medical Genetics****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical, Lab, Lecture**MED 488: Intro to Medicine-Pediatrics****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical, Lab, Lecture**MED 489: Rheumatology****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical, Lab, Lecture**MED 490: Women's Health****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical**MED 491: Endocrinology****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical, Lab, Lecture**MED 492: Perioperative and Consult Med**

Students will participate in the inpatient care of patients with the Farber Hospitalist group at both TJUH and JHN. One student will be assigned to each location. They will see patients with the Farber Hospitalist group 5 days/week for two weeks. They will work closely with the Gibbon Farber Consult attending and the JHN Farber attendings to see a variety of surgical patients and provide consultative/perioperative care. Students will learn and become familiar with performing preoperative assessments including cardiac risk stratification prior to surgical procedures, optimizing medical comorbidities preoperatively, appropriately modifying a patient's medication regimen perioperatively, and managing postoperative complications including but not limited to postoperative fever, anemia, pain, electrolyte disorders, hypotension, venous thromboembolism, ileus, encephalopathy etc.

College: Sidney Kimmel Medical College**Schedule Type:** Clinical**MED 493: Consultation Medicine****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical**MED 494: Narrative Medicine****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical, Lab, Lecture**MED 495: Oncology****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical, Lab, Lecture**MED 497: Health Care Law and Medicine****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical, Lab, Lecture**MED 498: Internal Medicine Away Elect****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical**MED 499: Gateway to Internship****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical, Lab, Lecture**MED 500: Senior Medicine****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical

Microbiology (MD) (MICR)

MICR 200: Immunity Infection & Disease**College:** Sidney Kimmel Medical College**Schedule Type:** Clinical, Lab, Lecture**MICR 201: Immunity, Infection & Disease****College:** Sidney Kimmel Medical College**Schedule Type:** Lecture**MICR 405: Genetics of Cancer****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical**MICR 410: Case Studies****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical, Lab, Lecture**MICR 425: Research: Microbiology**

Departmental research is scheduled after consultation with the department and approval of a research project. Students may complete up to 12 credits (or 8 weeks) of research in Phase 3. Students wishing to count their research project towards the SI requirement in Phase 3, must receive permission from the SI Director and complete a capstone project.

College: Sidney Kimmel Medical College**Schedule Type:** Clinical

Neurology (NEUR)

NEUR 350: Neurology Clerkship

Neurology is a four-week clerkship which provides a foundational experience in the field of Adult Neurology. Student will learn about various neurologic conditions, including pathophysiology, clinical presentation, diagnosis, and treatment. Learning will specifically focus on ability to gather a detailed neurological history performing a neurological examination. Offered at Thomas Jefferson University Hospital and affiliate locations. (4 week clerkship)

College: Sidney Kimmel Medical College**Schedule Type:** Clinical

NEUR 352: Neurology Selective**College:** Sidney Kimmel Medical College**Schedule Type:** Clinical**NEUR 355: Neurology Clerkship****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical**NEUR 401: Senior Clerkship****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical, Lab, Lecture**NEUR 425: Research- Neurology**

Departmental research is scheduled after consultation with the department and approval of a research project. Students may complete up to 12 credits (or 8 weeks) of research in Phase 3. Students wishing to count their research project towards the SI requirement in Phase 3, must receive permission from the SI Director and complete a capstone project.

College: Sidney Kimmel Medical College**Schedule Type:** Clinical**NEUR 430: Advanced Topics in Neurology**

This course explores a wide-range of topics in neurology as a baseline framework for a potential future start in training in neurology. This course utilizes a combination of readings, podcasts, online cases, lectures, and participation in resident lectures. Graded P/F.

College: Sidney Kimmel Medical College**Schedule Type:** On-Line**NEUR 431: Advanced Neurology**

The Advanced Neurology Course is an elective course offered to fourth-year students to explore a wide-range of advanced topics as a baseline framework for a potential future career in Neurology. The course is 4-weeks long. The student will build their schedule by selecting 1-2 week blocks from the following six rotation options: *Multispecialty Outpatient Clinics *Epilepsy Monitoring Unit *Neurocritical Care at the Jefferson Hospital for Neuroscience (JHN) *Night-float at Gibbon or JHN (rotating with the consult resident) *Jefferson Northeast Consult Service (staffed by Neurology Department Faculty) *Inpatient Headache Service at Methodist (staffed by Neurology Department Faculty)

College: Sidney Kimmel Medical College**Schedule Type:** Clinical**NEUR 481: Neurology Elective****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical**NEUR 498: Neurology Away Elective****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical

Neurosurgery (NSRG)

NSRG 352: Neurosurgery Selective

This course introduces the student to the field of Neurological surgery and the scope of neurological diseases, with emphasis is on cerebrovascular, neuro-oncologic and spinal diseases, and the principles underlying their management. Students will have exposure to outpatients, inpatients and operating room experience, and will also have the opportunity to participate in the department's conference and lecture series. Offered at Thomas Jefferson University Hospital. (3 week clerkship)

College: Sidney Kimmel Medical College**Schedule Type:** Clinical**NSRG 401: Neurosurgery Subinternship****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical, Lab, Lecture**NSRG 425: Research- Neurosurgery**

Departmental research is scheduled after consultation with the department and approval of a research project. Students may complete up to 12 credits (or 8 weeks) of research in Phase 3. Students wishing to count their research project towards the SI requirement in Phase 3, must receive permission from the SI Director and complete a capstone project.

College: Sidney Kimmel Medical College**Schedule Type:** Clinical**NSRG 464: Outpatient Neurosurgery****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical**NSRG 498: Neurosurgery Away Elective****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical

Obstetrics-Gynecology (OBGY)

OBGY 350: ObGyn Clerkship

This is a required clerkship for all medical students. It is a clerkship that covers inpatient and outpatient care for patients. On Labor and Delivery students will follow patients through their labor courses and deliveries. While being supervised appropriately they will assist with assessing the patients and assisting with their care. On the Gynecology rotation the students will assist in the operating room, assist with consultations and follow patients post-operatively. In the outpatient clinic students will learn about primary care and prenatal care. Students will learn to care for patients during adolescence, child bearing, and menopause. They will be comfortable counseling patients on contraception options and pregnancy options. Offered at Thomas Jefferson University Hospital and affiliate locations. (6 week clerkship)

College: Sidney Kimmel Medical College**Schedule Type:** Clinical, Lab, Lecture**OBGY 351: Examination****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical, Lab, Lecture**OBGY 355: Obstetrics & Gynecology****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical**OBGY 401: Inpatient Sub-Internship****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical**OBGY 402: Outpatient Subinternship****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical**OBGY 405: Clinical Clerkship****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical, Lab, Lecture**OBGY 406: Urogynecology****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical, Lab, Lecture**OBGY 407: Gynecologic Endocrinology****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical

OBGY 408: Gynecologic Oncology**College:** Sidney Kimmel Medical College**Schedule Type:** Clinical, Lab, Lecture**OBGY 409: Maternal Fetal Medicine****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical, Lab, Lecture**OBGY 410: Office Gynecology Preceptor****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical, Lab, Lecture**OBGY 411: Maternal Fetal Outpatient****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical**OBGY 412: Senior Selective in Ob-Gyn****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical**OBGY 425: Research- OBGYN**

Departmental research is scheduled after consultation with the department and approval of a research project. Students may complete up to 12 credits (or 8 weeks) of research in Phase 3. Students wishing to count their research project towards the SI requirement in Phase 3, must receive permission from the SI Director and complete a capstone project.

College: Sidney Kimmel Medical College**Schedule Type:** Clinical**OBGY 471: Advanced Topics in OBGYN**

This course will provide an opportunity to review a variety of topics and skills in medical education as they apply to Ob-Gyn. Student will analyze literature on a variety of topics in Ob-Gyn and apply the information from medical literature to answer clinical questions. Student will communicate effectively with peers in a virtual format, construct effective teaching presentation on a topic of choice, and provide actionable feedback to a peer.

College: Sidney Kimmel Medical College**Schedule Type:** Lecture**OBGY 480: Vulvovaginal Clinic Elective****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical**OBGY 481: Reproductive Endocrinology****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical**OBGY 482: Postpartum Care****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical**OBGY 498: OBGY Away Elective****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical

Ophthalmology (OPHT)

OPHT 352: Ophthalmology Selective

The rotation begins with an introductory session in which the students will draw a partner's optic nerve area of the retina. A second introductory session covers the techniques of an ocular examination including familiarity with the slit lamp. Clinical exposure will occur in general ophthalmology clinic, the emergency room, as well as the subspecialty clinic and the Operating Room. A didactic series throughout the selective will cover various aspects of ophthalmology with emphasis on ocular abnormalities associated with systemic diseases. Offered at Wills Eye Hospital. (3 week clerkship)

College: Sidney Kimmel Medical College**Schedule Type:** Clinical**OPHT 401: Ophthalmology Senior Elective****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical, Lab, Lecture**OPHT 407: Basic Ocular Pathology****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical, Lab, Lecture**OPHT 408: Ocular Genetics****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical**OPHT 425: Research- Ophthalmology****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical**OPHT 481: Ophthalmology Elective****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical**OPHT 482: Pediatric Ophthalmology****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical**OPHT 498: Ophthalmology Away Elective****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical

Oral & Maxillofacial Surgery (OMFS)

OMFS 401: Oral & Max Surgery Sub-I

Introduction to OMFS instrumentation, procedures, and anesthetic techniques. Experience in clinical as well as trauma/ pathology/ reconstruction/ and orthognathic cases.

College: Sidney Kimmel Medical College**Schedule Type:** Clinical

Orthopedic Surgery (ORTH)

ORTH 352: Orthopedic Surgery Selective

This course introduces the students to the scope of problems affecting the musculoskeletal system and the principles underlying their management. Students will work under the direction of Orthopaedic surgeons who will guide them through a series of inpatient, operative, and outpatient experiences reflective of the musculoskeletal problems seen and managed by Orthopaedist. Offered at Thomas Jefferson University Hospital and affiliate locations. (3 week clerkship)

College: Sidney Kimmel Medical College**Schedule Type:** Clinical

ORTH 401: Orthopaedic Surgery Sub-I

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

ORTH 403: Musculoskeletal Outpatient SubI

College: Sidney Kimmel Medical College

Schedule Type: Clinical

ORTH 412: Orthopedic Oncology and Sarcom

The Orthopedic Oncology and Sarcoma elective allows 4th year medical students to perform an elective on an active orthopedic oncology surgery service for pediatric and adult patients afflicted with benign and malignant (sarcomas) bone and soft tissue tumors involving the extremities. Students will work with the orthopedic oncology team and assist on a multitude of surgeries. Students will gain experience evaluating patients in the office and performing rounds on the hospital floor helping to care for postoperative patients. Great insight will be gained in the diagnosis, surgical management and postoperative management of patients with musculoskeletal tumors.* Rotation only offered by Atlantic Health - Morristown*

College: Sidney Kimmel Medical College

Schedule Type: Clinical

ORTH 425: Research- Orthopedics

Departmental research is scheduled after consultation with the department and approval of a research project. Students may complete up to 12 credits (or 8 weeks) of research in Phase 3. Students wishing to count their research project towards the SI requirement in Phase 3, must receive permission from the SI Director and complete a capstone project.

College: Sidney Kimmel Medical College

Schedule Type: Clinical

ORTH 482: Hand Surgery

College: Sidney Kimmel Medical College

Schedule Type: Clinical

ORTH 498: Orthopedic Surg Away Elective

College: Sidney Kimmel Medical College

Schedule Type: Clinical

Otolaryngology (OTOL)

OTOL 352: Otolaryngology Selective

Clinical experiences in otolaryngology are provided in the office, hospital and operating room. Students will work with residents and faculty on service, and will participate in care of patients and morning rounds, rotating with attendings during their office hours, and spend time observing and participating in surgical cases. A didactic series will cover the important aspects of otolaryngology relevant to all facets of medicine. Offered at Thomas Jefferson University Hospital and DuPont Children's Hospital. (3 week clerkship).

College: Sidney Kimmel Medical College

Schedule Type: Clinical

OTOL 401: Otolaryngology Subinternship

College: Sidney Kimmel Medical College

Schedule Type: Clinical

OTOL 405: Oral & Maxillofacial Surgery

College: Sidney Kimmel Medical College

Schedule Type: Clinical

OTOL 425: Research- Otolaryngology

Departmental research is scheduled after consultation with the department and approval of a research project. Students may complete up to 12 credits (or 8 weeks) of research in Phase 3. Students wishing to count their research project towards the SI requirement in Phase 3, must receive permission from the SI Director and complete a capstone project.

College: Sidney Kimmel Medical College

Schedule Type: Clinical

OTOL 440: Advanced Otolaryngology Elect

College: Sidney Kimmel Medical College

Schedule Type: Clinical

OTOL 498: Otolaryngology Away Elective

College: Sidney Kimmel Medical College

Schedule Type: Clinical

Pathology (MD) (PATH)

PATH 200: System Pathology

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

PATH 352: Path Non-Surg Clerkship

College: Sidney Kimmel Medical College

Schedule Type: Clinical

PATH 401: General Pathology

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

PATH 402: Hematopathology

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

PATH 404: Postmortem Pathology

Hands-on full participation in autopsy service, intended to give the student an appreciation of the techniques and analytical tools used in postmortem examinations. Activities include: 1. work with pathology staff and residents to evaluate pre-mortem patient clinical and laboratory findings, analyze case histories; 2. perform postmortem dissections and gross organ analyses with resident and faculty staff 3. work through microscopic findings and sign out final microscopic analyses with attending pathologists and residents 4. participate in regular neuropathology brain cutting and discussions 5. work through your own autopsy cases and case-exercises to compose microscopic analyses and clinical-pathologic correlation discussions 6. prepare presentations based on your case exercises, to present to other student(s) and pathology faculty 7. learn about special types of autopsies and analyses in both didactic and active teaching sessions, specific topics to include forensics, toxicology, immunochemistry, clinical microbiology and others

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

PATH 408: Advanced Pathology

Understanding the role of Surgical Pathology in diagnosis, patient care and management and the importance of clinicopathologic correlation – i.e., correlation with history, surgery, endoscopy, radiology, labs, etc. Appreciate the value to knowing normal histology in order to better understand pathologic conditions, understand the role of frozen sections and intraoperative consultation, reinforce concepts of tumor grading and staging, understand how we gross and processing tissue; specifically observe gross dissection and gross descriptions, become acquainted with microscopic evaluation and the use of ancillary studies to render a diagnosis (e.g. immunohistochemistry, special stains, molecular, etc.). Prerequisite: PATH 401 required.

College: Sidney Kimmel Medical College

Prerequisites: PATH 401

Schedule Type: Clinical, Lab, Lecture

PATH 425: Research- Pathology

Departmental research is scheduled after consultation with the department and approval of a research project. Students may complete up to 12 credits (or 8 weeks) of research in Phase 3. Students wishing to count their research project towards the SI requirement in Phase 3, must receive permission from the SI Director and complete a capstone project.

College: Sidney Kimmel Medical College

Schedule Type: Clinical

PATH 481: General Pathology Elective

This on-line course consists of theoretical and practical applications of specific areas in Pathology. The student will do virtual modules in surgical pathology and laboratory medicine, including haematopathology, microbiology, transfusion medicine and clinical chemistry. By the end of this course, students will submit a 6 minute voice-thread presentation as well as a literature review. Students are also expected to remotely attend tumour board, noon lectures, and transfusion medicine rounds. There is the option to observe and assist on autopsy in person. A modified in person/virtual hybrid version of this course is also offered as a 4-week course (PATH401)

College: Sidney Kimmel Medical College

Schedule Type: On-Line

PATH 498: Pathology Away Elective

College: Sidney Kimmel Medical College

Schedule Type: Clinical

Pediatrics (PED)

PED 350: Pediatrics Clerkship

Students will learn and practice how to approach patients of different ages from birth to age nineteen. They are exposed to common clinical problems in the inpatient, outpatient and newborn nursery settings which ensures that every student sees a balanced patient mix. Physical examination skills are reinforced using Pediatric Standardized Patients at orientation. Additional projects focus on practice innovation. Personal wellness plans are supported. Offered at Thomas Jefferson University Hospital and affiliate locations. (6 week clerkship)

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

PED 351: Examination

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

PED 355: Pediatrics Clerkship

College: Sidney Kimmel Medical College

Schedule Type: Clinical

PED 401: Outpatient Subinternship

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

PED 402: Inpatient Subinternship

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

PED 403: Intensive Care Nursery

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

PED 404: Neurodevelopmental Pediatrics

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

PED 405: Pediatric Emergency Medicine

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

PED 410: Adol/Ped Gastroenterology

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

PED 411: Pediatric Allergy

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

PED 412: Pediatric Dermatology

College: Sidney Kimmel Medical College

Schedule Type: Clinical

PED 413: Pediatric Cardiology

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

PED 415: Pediatric Neurology

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

PED 417: Pediatric Nephrology

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

PED 418: Pediatric Rheumatology

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

PED 419: Pediatric Hematology/Oncology

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

PED 420: Pediatric Psychology

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

PED 421: Pediatric Endocrinology

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

PED 422: Pediatric Otolaryngology

College: Sidney Kimmel Medical College

Schedule Type: Clinical

PED 425: Research- Pediatrics

Departmental research is scheduled after consultation with the department and approval of a research project. Students may complete up to 12 credits (or 8 weeks) of research in Phase 3. Students wishing to count their research project towards the SI requirement in Phase 3, must receive permission from the SI Director and complete a capstone project.

College: Sidney Kimmel Medical College

Schedule Type: Clinical

PED 427: Adolescent Medicine

College: Sidney Kimmel Medical College

Schedule Type: Clinical

PED 428: Clinical Genetics

College: Sidney Kimmel Medical College

Schedule Type: Clinical

PED 429: Ped Palliative Care

College: Sidney Kimmel Medical College

Schedule Type: Clinical

PED 430: Advocacy & Comm. Partnerships

College: Sidney Kimmel Medical College

Schedule Type: Clinical

PED 431: Diagnostic Referral

College: Sidney Kimmel Medical College

Schedule Type: Clinical

PED 432: Patient Exp-Navigating the Sys

College: Sidney Kimmel Medical College

Schedule Type: Clinical

PED 433: Pediatric Rehabilitation Med

College: Sidney Kimmel Medical College

Schedule Type: Clinical

PED 471: Advanced Topics in Pediatrics

This course is meant to serve as a pre-course and supplement to a 4th year subinternship elective. The goal of the course is to bridge knowledge gained in 3rd year pediatric rotations with skills and knowledge needed to start as an intern in a pediatric residency. The course is meant to fill knowledge-gaps in high-yield pediatric topics and discuss the medical approach to situations encountered on the wards about which future pediatric residents might be anxious. The course will be based on 12 core topics, and include a combination of presentation and learning styles, like podcasts, videos, case presentations, articles, and discussion groups. There will also be a component of developing literature review skills, and using those to create a teaching presentation to share with the group.

College: Sidney Kimmel Medical College

Schedule Type: Lecture

PED 472: Pediatric Nutrition

College: Sidney Kimmel Medical College

Schedule Type: Clinical

PED 473: Pediatric Infectious Disease

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

PED 474: Health Inequities in Peds

College: Sidney Kimmel Medical College

Schedule Type: Clinical

PED 480: Pediatric Critical Care

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

PED 481: Pediatric Pulmonary Medicine

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

PED 482: Pediatric Ophthalmology

College: Sidney Kimmel Medical College

Schedule Type: Clinical

PED 484: Ped Gastroenterology Elective

College: Sidney Kimmel Medical College

Schedule Type: Clinical

PED 486: Pediatric Urology

College: Sidney Kimmel Medical College

Schedule Type: Clinical

PED 487: Pediatric Orthopedics

College: Sidney Kimmel Medical College

Schedule Type: Clinical

PED 488: Pediatric Weight Management

College: Sidney Kimmel Medical College

Schedule Type: Clinical

PED 498: Pediatrics Away Elective

College: Sidney Kimmel Medical College

Schedule Type: Clinical

Pharmacology (MD) (PHAR)

PHAR 401: Clinical Pharmacology

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

PHAR 403: Research

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

Physiology (MD) (PHYS)

PHYS 405: Research

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

Psychiatry & Human Behavior (PSYH)

PSYH 350: Psychiatry Clerkship

This core clinical experience prepares future physicians to accurately assess, recognize, and plan treatment for a variety of psychiatric disorders. Additionally, students will gain confidence and comfortability in treating patients with mental illness. The six week clerkship is divided into two three-week clinical placements to provide exposure to psychiatric care in a variety of settings. Students are considered an integral part of the treatment team and will evaluate and follow patients under faculty supervision, observing and participating in all aspects of patient care. Through exposure and guidance, students will learn skills in developing therapeutic relationships with patients while establishing appropriate treatment boundaries. Case based learning and didactic seminars are scheduled for a half-day per week and attended by all students. Site placements include possible experiences in consultation liaison psychiatry, adult & geriatric inpatient psychiatry, addiction psychiatry, and child & adolescent psychiatry. Offered at Thomas Jefferson University Hospital and affiliate locations. (6 week clerkship)

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

PSYH 351: Examination

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

PSYH 355: Psychiatry Clerkship

College: Sidney Kimmel Medical College

Schedule Type: Clinical

PSYH 401: Adult Inpatient Psych Sub-I

The student is assigned to an adult inpatient unit to function as a sub-intern in this setting. The assignment is a continuation of the inpatient work of the junior clerkship, but at a higher level of responsibility. Broad exposure to serious psychiatric disorders is provided. The inpatient service also has beds dedicated to medical/surgical patients with prominent psychiatric co-morbidity. The sub-intern will be afforded the opportunity to function as a house officer and will have primary responsibility for his or her patients. The unit embraces the entire bio-psychosocial model as well as the multidisciplinary treatment team approach. Students participate in a weekly faculty-led patient interview and case conference. Students will thereby enhance their diagnostic and treatment skills as well as their abilities to assume a leadership role. Students are evaluated by attending psychiatrists, residents, and treatment team members through direct observation of interactions with patients and families, assessment of sophistication of chart entries, and competence obtaining and presenting patient histories, formulating cases, and carrying out basic treatment planning.

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

PSYH 403: Special Interest Clerkship

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

PSYH 405: Outpatient Sleep Disorders Med

This is one of two outpatient sub-internships that meet the senior student's ambulatory requirement (see also PSYH 408). Students engage in all aspects of clinical work in the Sleep Disorders Center, an outpatient program for the evaluation and management of sleep disorders. The program encompasses a Sleep Laboratory, inpatient consults at Jefferson Hospital Gibbon Building and outpatient clinic at the Sleep Disorders Center in Center City, as well as our satellite locations at the Navy Yard and 700 Walnut. Students are expected to observe the evaluation and management of patients and, after training, to gather an initial database, formulate a differential diagnosis, and develop recommendations for further workup and management. Students are directly supervised by attending physicians most of the time, and, to a lesser degree, house staff including residents in psychiatry, fellows in pulmonary and critical care medicine, and fellows in sleep medicine. Students observe polysomnographic studies and become familiar with sleep monitoring and scoring techniques. They are involved in performing consultations for inpatients. Reading material is provided as reference. Students are encouraged to complete an academic project by the end of the rotation, which can take many forms, including detailed case reports, topical presentations, and literature reviews. Evaluation is accomplished through direct observation of student interactions with patients by faculty and house staff as well as assessment of sophistication of chart entries and competence presenting patient information and assigned projects.

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

PSYH 406: Outpatient Elective II

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

PSYH 408: Outpatient Addictions Psych

This sub-internship is designed to help the fourth year medical student develop the advanced skills needed to be a competent intern. The skills developed during this rotation will be equally relevant to students planning to pursue psychiatry residency and students planning careers in other specialties. This rotation is primarily based at the outpatient addictions clinic, but the training focus includes substance use disorders and the broad range of ambulatory psychiatric disorders affecting this population, including mood, anxiety, and personality disorders. During this rotation students develop their skills in the following areas: interviewing a patient and presenting a comprehensive history and mental status exam, developing a differential diagnosis, and planning treatment. In recognition of the ubiquitous nature of substance use disorders, students will be expected to develop an understanding of the signs and symptoms of intoxication and withdrawal from various substances of abuse and the full spectrum available in pharmacologic, behavioral, and psychotherapeutic treatment options. In addition the sub-intern student will be expected to act as a "supervisor" to the third year medical students who are rotating on the service. This experience will help prepare the sub-intern to assume the teaching responsibilities of a first-year intern. This rotation provides the unique opportunity for students to gain experience in the management of outpatients in a psychiatric clinic. Students are encouraged to follow patients, as frequently as once a week, throughout their rotation. Students will also have the opportunity to observe senior attending physicians' with different subspecialty expertise (e.g. psychoanalysis, psychopharmacology, mood disorders) evaluate new patients. Students will also participate in case conferences in the general adult outpatient service.

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

PSYH 412: Dialectical Behavior Therapy

Join a full-model (comprehensive) DBT team for a month. Attend DBT-related didactics, participate in DBT Consultation Team, observe DBT skills group taught by a DBT-Certified Clinician (Dr. O'Hayer), observe and participate in a DBT skills group run by two clinicians, observe and participate in a DBT graduate group. Observe and participate in a mindfulness meditation group aimed at Accessing Wise Mind. Complete a DBT behavioral Case Formulation focused on one of the patients whose treatment you have observed in this elective.

College: Sidney Kimmel Medical College

Schedule Type: Clinical

PSYH 421: Child/Adol Psych Clerkship

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

PSYH 425: Research- Psychiatry

Departmental research is scheduled after consultation with the department and approval of a research project. Students may complete up to 12 credits (or 8 weeks) of research in Phase 3. Students wishing to count their research project towards the SI requirement in Phase 3, must receive permission from the SI Director and complete a capstone project.

College: Sidney Kimmel Medical College

Schedule Type: Clinical

PSYH 431: Consult & Liaison Psychiatry

During this elective the student (1) develops skill in the evaluation and treatment of psychiatric illness in the medical setting, (2) develops an appreciation for the interface between psychological/social factors and medical illness, and (3) learns about the variety of consultation services provided by a psychiatrist in the general hospital. The student functions as an integral clinical member of the Consultation-Liaison Service. He or she is responsible for performing initial consultations and follow-up as indicated. Because the C-L service receives requests for consults from virtually all clinical services at Thomas Jefferson University Hospital, a student has the opportunity to gain experience with the management of a wide range of clinical issues. The student is supervised by the Attendings and Resident(s) assigned to the service and fellow(s) in psychosomatic medicine. Students participate in daily teaching rounds. There is a formal didactic meeting each week and weekly grand rounds.

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

PSYH 435: Drug & Alcohol Management

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

PSYH 436: Adolescent Psy/Belmont

College: Sidney Kimmel Medical College

Schedule Type: Clinical

PSYH 437: Co-Occurring Disorder Unit-Bel

College: Sidney Kimmel Medical College

Schedule Type: Clinical

PSYH 438: Emergency Psy/AEMC

College: Sidney Kimmel Medical College

Schedule Type: Clinical

PSYH 439: Geriatric Pscy/Ein Ctr One

College: Sidney Kimmel Medical College

Schedule Type: Clinical

PSYH 440: Long-Term Str Res

College: Sidney Kimmel Medical College

Schedule Type: Clinical

PSYH 441: Alt Gay, Les, Bi, Tran Unit

College: Sidney Kimmel Medical College

Schedule Type: Clinical

PSYH 442: Alt/Gay/Lesb/Bisex/Trans Psych

College: Sidney Kimmel Medical College

Schedule Type: Clinical

PSYH 445: Eating Disorders

College: Sidney Kimmel Medical College

Schedule Type: Clinical

PSYH 498: Psychiatry Away Elective

College: Sidney Kimmel Medical College

Schedule Type: Clinical

Radiation, Oncology, Nuclear Med (RONM)

RONM 352: Radiation Oncology Selective

College: Sidney Kimmel Medical College

Schedule Type: Clinical

RONM 401: Radiation Oncology Sub-I

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

RONM 405: Ambulatory Oncology Elective

College: Sidney Kimmel Medical College

Schedule Type: Clinical

RONM 425: Research- Radiation & Oncology

Departmental research is scheduled after consultation with the department and approval of a research project. Students may complete up to 12 credits (or 8 weeks) of research in Phase 3. Students wishing to count their research project towards the SI requirement in Phase 3, must receive permission from the SI Director and complete a capstone project.

College: Sidney Kimmel Medical College

Schedule Type: Clinical

RONM 431: Radiobiology of Human Cancer

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

RONM 498: Radiation Oncology Away Elect

College: Sidney Kimmel Medical College

Schedule Type: Clinical

Radiology (RAD)

RAD 352: Interventional Radiology

College: Sidney Kimmel Medical College

Schedule Type: Clinical

RAD 401: Diagnostic Radiology

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

RAD 403: Neuroradiology

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

RAD 405: Pediatric Radiology

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

RAD 406: Cross Sectional Imaging**College:** Sidney Kimmel Medical College**Schedule Type:** Clinical, Lab, Lecture**RAD 407: Interventional Radiology****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical, Lab, Lecture**RAD 408: Musculoskeletal Radiology****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical**RAD 425: Research- Radiology**

Departmental research is scheduled after consultation with the department and approval of a research project. Students may complete up to 12 credits (or 8 weeks) of research in Phase 3. Students wishing to count their research project towards the SI requirement in Phase 3, must receive permission from the SI Director and complete a capstone project.

College: Sidney Kimmel Medical College**Schedule Type:** Clinical**RAD 483: Pediatric Radiology**

Students will be exposed to pediatric disorders through radiography, fluoroscopy, ultrasound, CT, and MRI. They will enhance their knowledge of pediatric specific anatomy, physiology and pathology through imaging. Students will participate in read outs with the pediatric radiology faculty, attend conferences and review materials for self-study. Students will be expected to present a case at the end of the elective.

College: Sidney Kimmel Medical College**Schedule Type:** Clinical**RAD 486: Cross Sectional Elective****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical**RAD 487: Interventional Rad Elective****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical**RAD 488: Musculoskeletal Rad Elective****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical**RAD 498: Radiology Away Elective****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical

Rehabilitation (RHAB)

RHAB 352: Rehab Medicine Selective**College:** Sidney Kimmel Medical College**Schedule Type:** Clinical**RHAB 401: Senior Elective in Rehab Med****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical, Lab, Lecture**RHAB 405: Neurorehab & Continuum of Care****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical**RHAB 425: Research- Rehabilitation**

Departmental research is scheduled after consultation with the department and approval of a research project. Students may complete up to 12 credits (or 8 weeks) of research in Phase 3. Students wishing to count their research project towards the SI requirement in Phase 3, must receive permission from the SI Director and complete a capstone project.

College: Sidney Kimmel Medical College**Schedule Type:** Clinical**RHAB 481: Rehabilitation Med Elective****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical**RHAB 482: Care of People with Disability****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical**RHAB 498: Rehab Medicine Away Elective****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical

SKMC - Away Rotation (AWAY)

AWAY 999: Planned Away Rotation

This course is intended to hold the place for an Away Rotation while the student is building their schedule. This course will be dropped once the block begins and the student must be fully registered in their Away Rotation by submitting the requisite form.

College: Sidney Kimmel Medical College**Schedule Type:** Clinical

SKMC LIC (LIC)

LIC 999: LIC PLACEHOLDER**College:** Sidney Kimmel Medical College**Schedule Type:** Clinical

Surgery (SURG)

SURG 350: Surgery Clerkship

During the Surgery Clerkship, students will assimilate the knowledge, skills, and attitudes concerning surgery that are expected of every physician. Students assume responsibility of the preoperative evaluation of surgical patients and their postoperative care, and participate in the surgical procedures. Available at Thomas Jefferson University Hospital and affiliate locations. (6 week clerkship)

College: Sidney Kimmel Medical College**Schedule Type:** Clinical, Lab, Lecture**SURG 351: Examination****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical, Lab, Lecture**SURG 355: Surgery & SurgSub Clerkship****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical**SURG 402: Emerg Medicine Outpatient****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical**SURG 403: Emergency Medicine****College:** Sidney Kimmel Medical College**Schedule Type:** Clinical

SURG 410: Surgical Nutrition

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

SURG 425: Research- Surgery

Departmental research is scheduled after consultation with the department and approval of a research project. Students may complete up to 12 credits (or 8 weeks) of research in Phase 3. Students wishing to count their research project towards the SI requirement in Phase 3, must receive permission from the SI Director and complete a capstone project.

College: Sidney Kimmel Medical College

Schedule Type: Clinical

SURG 449: Gross General Surgery

College: Sidney Kimmel Medical College

Schedule Type: Clinical

SURG 450: Inpatient Subinternship

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

SURG 451: Outpatient Plastic Surgery

College: Sidney Kimmel Medical College

Schedule Type: Clinical

SURG 452: General Surgery Elective

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

SURG 453: Thoracic Surgery

The Thoracic service is a wonderful service with two great attendings who are interactive teachers. You will get exposed to a variety of lung and esophageal pathology. Exposure to bronchoscopies, chest tube management, acute lung consults in the ED, and pre-op/post-op care are only some of the additional things to look forward to. Since it's a small team, you have a good deal of responsibility but it is manageable and enjoyable. Highly recommend it! Operating Room Days: Three days a week - Monday, Wednesday, Friday. Mixture of robotic cases, VATS, thoracotomies, esophagectomies, and more. Definitely prep before every case. Know the patient, the operation, the pathology, and the anatomy. Be active in the OR set up of the patient and throughout the case. You are in charge of post-op notes and post-op checks. Cases are in Gibbon 5. The thoracic OR staff is great, be polite and get to know them.

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

SURG 454: Experience in Clin Transplant

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

SURG 455: Plastic Surgery Elective

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

SURG 456: Cardiac Surgery

The Division of Cardiothoracic Surgery is dedicated to the assessment, diagnosis and treatment of cardiovascular disease. As a student you will partake in both the inpatient and outpatient arenas as well as being involved in the operating room. The major cardiovascular disorders include: Coronary Disease, Valvular Disease, Heart Failure and Transplant.

College: Sidney Kimmel Medical College

Schedule Type: Clinical

SURG 458: Diseases of the Breast

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

SURG 459: Colon & Rectal Surgery

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

SURG 460: Clin Research-Breast Diseases

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

SURG 461: Outpatient Bariatrics Elective

College: Sidney Kimmel Medical College

Schedule Type: Clinical

SURG 462: Outpatient Vascular Medicine

College: Sidney Kimmel Medical College

Schedule Type: Clinical

SURG 470: Tech Surgical Research

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

SURG 471: Advanced Topics in Surgery

This course will provide an opportunity to review a variety of topics and skills in surgery. Students will analyze literature on a variety of topics in Surgery and apply the information from medical literature to answer clinical questions. Students will communicate effectively with peers in a virtual format, construct an effective teaching presentation on a topic of choice, and provide actionable feedback to a peer.

College: Sidney Kimmel Medical College

Schedule Type: Lecture

SURG 475: Pediatric Surgery

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

SURG 480: Trauma Surgery

College: Sidney Kimmel Medical College

Schedule Type: Clinical

SURG 481: Preadmission Testing

College: Sidney Kimmel Medical College

Schedule Type: Clinical

SURG 485: Surgical Intensive Care

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

SURG 486: Cardiac Surgery Intensive Care

College: Sidney Kimmel Medical College

Schedule Type: Clinical

SURG 490: Peripheral Vascular Surgery

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

SURG 498: Surgery Away Elective

College: Sidney Kimmel Medical College

Schedule Type: Clinical

Urology (UROL)

UROL 352: Urology Selective

College: Sidney Kimmel Medical College

Schedule Type: Clinical

UROL 401: Senior Elective in Urology

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lab, Lecture

UROL 405: Urologic Oncology

College: Sidney Kimmel Medical College

Schedule Type: Clinical

UROL 406: Endourology

College: Sidney Kimmel Medical College

Schedule Type: Clinical

UROL 407: Genitourinary Reconstruction

College: Sidney Kimmel Medical College

Schedule Type: Clinical

UROL 425: Research- Urology

Departmental research is scheduled after consultation with the department and approval of a research project. Students may complete up to 12 credits (or 8 weeks) of research in Phase 3. Students wishing to count their research project towards the SI requirement in Phase 3, must receive permission from the SI Director and complete a capstone project.

College: Sidney Kimmel Medical College

Schedule Type: Clinical

UROL 430: Advanced Topics in Urology

This course will provide an opportunity to review general and specialty-specific urologic conditions along with evaluation, diagnosis, and treatment. All learning will be done virtually through lecture and case reports. Recorded surgical videos will be reviewed in an online forum with students.

College: Sidney Kimmel Medical College

Schedule Type: On-Line

UROL 452: Urology Outpatient Experience

College: Sidney Kimmel Medical College

Schedule Type: Clinical

UROL 498: Urology Away Elective

College: Sidney Kimmel Medical College

Schedule Type: Clinical

Vacation (VACA)

VACA 400: Vacation

College: Sidney Kimmel Medical College

Schedule Type: Clinical, Lecture

MINORS

What is a Minor?

A minor is a secondary area of interest that often complements a student's major. Although not a degree requirement many students choose to pair their major discipline with another complementary discipline. A minor allows students to group electives together in a meaningful way, providing a set of courses that provides supplemental study in a particular subject area. Options for minors are determined by the academic program and consist of a minimum of **twelve credits in the subject area**.

Why Choose to Study a Minor?

In addition to integrating and unifying subjects covered in electives, minors enable students to pursue secondary areas of interest and to develop a knowledge base and skill sets that complement their major area. By layering a secondary area onto a primary field of study, minors may demonstrate versatility and flexibility to a prospective employer and as a result, expand prospects for internships and future employment.

Guidelines for Minors

- A student may not combine a major and minor in the same or similar functional area (e.g., an Interior Design major and an Interior Design minor).
- A student may not use the same course for credit in both the major and minor areas. In other words, only elective credits can be applied to the minor.
- Minors consist of 12 credits.
- Any substitute elective course from within the minor discipline must be approved. Please review and obtain the appropriate form available at the Academic Success Center's website <https://www.jefferson.edu/east-falls/academic-success-center/advising-forms.html>

Accounting Minor

Introduction

The Accounting Minor permits students to enrich their knowledge of the "language of business". No matter what profession a graduate enters, the ability to read and comprehend historical and prospective financial information will be essential. Students will be provided with an in-depth understanding of generally accepted accounting principles through intermediate accounting courses, an exposure to federal taxation and a choice of accounting electives for more intensive study.

Link to Minor Form

<http://www.eastfalls.jefferson.edu/successcenter/inc/pdf/advising/DeclaringaMinor.pdf>

Courses

| Code | Title | Credits |
|-----------------|--|---------|
| Required | | |
| ACCT 101 | Financial Accounting (required for non-business majors) ¹ | 3 |
| ACCT 203 | Intermediate Accounting I | 3 |
| ACCT 204 | Intermediate Accounting II | 3 |

| Code | Title | Credits |
|-------------------------------------|--------------------------------|-----------|
| ACCT 309 | Federal Taxes I | 3 |
| Select one of the following: | | 3 |
| ACCT 303 | Accounting Theory and Practice | |
| ACCT 316 | Cost Accounting I | |
| ACCT 409 | Auditing | |
| ACCT 412 | Advanced Accounting | |
| Total Credits | | 15 |

¹ Students from non-business majors are required take ACCT 101 Financial Accounting as one of the four courses

Animation & Digital Media Minor

Introduction

The Animation & Digital Media minor consists of 14 credits and offers students an opportunity to supplement their major with courses focused on creating animated content using cutting edge industry standard digital tools. The Animation & Digital Media minor will introduce students to both 2D and 3D animation mediums, culminating in the option to round out your animation skills with Digital Audio Production or take your motion design skills even further with Motion Graphics II.

Link to Minor Form

<http://www.eastfalls.jefferson.edu/successcenter/inc/pdf/advising/DeclaringaMinor.pdf> Minors (<http://www.eastfalls.jefferson.edu/successcenter/inc/pdf/advising/DeclaringaMinor.pdf> Minors/)

Courses

| Code | Title | Credits |
|----------------------|--------------------------|-----------|
| Required | | |
| ANIM 307 | 3D Modeling | 3 |
| ANIM 308N | 3D Animation | 4 |
| ANIM 301N | Motion Graphics I | 4 |
| ANIM 310 | Digital Audio Production | 3 |
| or ANIM 312 | Motion Graphics II | |
| Total Credits | | 14 |

Applied Business Analytics Minor

Introduction

The proliferation of data is changing the way that businesses and organizations operate. The Applied Business Analytics Minor will help students develop the skills necessary to understand, predict, and act on both large and small amounts of data, improving decision-making in increasingly complex and interconnected business and organizational environments. The minor utilizes a problem solving approach that combines the management of data with training in how to unlock the value buried in data and create new strategies and advancement opportunities using cutting-edge tools and techniques. Students emerge from the program poised to undertake analytics-focused roles and drive innovation and advancement through data.

Link to Minor

<http://www.eastfalls.jefferson.edu/successcenter/inc/pdf/advising/DeclaringaMinor.pdf>

Courses

| Code | Title | Credits |
|----------------------|--------------------------------------|-----------|
| Required | | |
| ABA 201 | Intro to Business Analytics | 3 |
| ABA 202 | Statistical Data Analytics | 3 |
| ABA 3xx | Data Mining and Predictive Analytics | 3 |
| ABA 4xx | Operations and Data Analytics | 3 |
| Total Credits | | 12 |

Architecture History and Theory Minor

Introduction

This minor offers students the opportunity to study art/architectural history and theory beyond the introductory level. The courses listed provide in-depth knowledge and analysis of historical periods and theoretical issues relative to the meaning and practice of architecture and related disciplines.

Link to Minor Form

<http://www.eastfalls.jefferson.edu/successcenter/inc/pdf/advising/DeclaringaMinor.pdf>

Courses

| Code | Title | Credits |
|---------------------------------------|---|-----------|
| Required | | |
| ARST 422 | Issues in Contemporary Arch | 3 |
| Select three of the following: | | 9 |
| ARST 422 | Issues in Contemporary Arch ² | |
| ARST 221 | Contemporary Preservation | |
| ARCH 320 | Ecology & Making ² | |
| ARST 341 | American Architecture ³ | |
| ARST 410 | Vernacular Architecture ³ | |
| ARST 302 | Unco the Past:Tools,Methods&St ³ | |
| ARST 409 | The Great American City ³ | |
| ARST 403 | Rest & Rehab of Modernst Bldgs | |
| ARST 425 | Meaning in Arch Ornamentation ³ | |
| ARST 434 | Water and Architecture ³ | |
| ARST 428 | Restoration/Rehab Interiors ³ | |
| ARST 471 | Design Theory: Special Topics ⁵ | |
| POTO 307 | History of Photography | |
| Total Credits | | 12 |

Prerequisites

Prerequisites Course Title

| | |
|---------------------------------|---|
| ARST-422 Architecture | Issues in Contemporary AHST-305 |
| ARST-221 AHIST-206 | Issues in Contemporary Preservation |
| ARCH-320 AHST-305 | Ecology and Making |
| ARST-341 AHST-206 | American Architecture |
| ARST-410 AHST-206 | Vernacular Architecture |
| ARST-302 Strategies AHST-206 | Uncovering the Past: Tools, Methods, |
| ARST-409 AHST-206 | The Great American City |
| ARST-403 Bldgs. AHIST-305 | Restoration & Rehabilitation of Modernist |
| ARST-425 Ornament | Meaning in Architectural AHST-206 |
| ARST-434 AHST-206 | Water and Architecture |
| ARST-428 Interiors | Restoration/Rehabilitation AHST-206 |
| POTO-307 Photography | History of WRIT-2xx |
| ARST-471 AHST-306 | Design Theory/Special Topics |

Building Technology Minor

Introduction

(Architectural Studies students only)

This minor provides an intermediate understanding of the theory and principles of systems and technology as applied to buildings. Topics encompass structural systems, loading, and materials; dynamic building systems; and the relationships of structures, environmental systems and building enclosure within a variety of building typologies. Depending on selected fourth course, students will focus on building structures or enclosures, in a theoretical or experimental mode, or on buildings as system components in their environment.

Link to Minor Form

<http://www.eastfalls.jefferson.edu/successcenter/inc/pdf/advising/DeclaringaMinor.pdf>

| Code | Title | Credits |
|-------------------------|--------------------------------|---------|
| Required Courses | | |
| ARCH 304 | Structures 2 | 3 |
| ARCH 313 | Tech 3: Dynamic Envro. Systems | 3 |
| ARCH 314 | Tech 4:Adv. Buildn Analysis | 3 |

Select One of the Following Courses

| Code | Title | Credits |
|----------|-------------------------------|---------|
| ARCH 413 | Experimental Structures | 3 |
| ARCH 414 | Experimental Materials | 3 |
| ARCH 419 | High Performance Bldg Envelop | 3 |
| ARCH 426 | Design/Build | 3 |

Business Minor

Introduction

This minor is specifically designed for the non-business major. It provides students with marketable business skills that are useful to any professional person.

Link to Minor Form

<http://www.eastfalls.jefferson.edu/successcenter/inc/pdf/advising/DeclaringaMinor.pdf>

Courses

| Code | Title | Credits |
|--------------------------------------|--------------------------|-----------|
| Select four of the following: | | 12 |
| ACCT 101 | Financial Accounting | |
| MKTG 102 | Principles of Marketing | |
| MGMT 301 | Principles of Management | |
| ECON 205 | Macroeconomics | |
| FIN 301 | Financial Management | |
| Total Credits | | 12 |

Business of Healthcare Minor

Introduction

This minor provides students with an overview of the issues and problems facing healthcare and the healthcare industry, including legal, ethical, economic, and business perspectives. In addition, students have the opportunity to learn about and use innovative business tools and approaches to address these issues and problems.

Link to Minor Form

<http://www.eastfalls.jefferson.edu/successcenter/inc/pdf/advising/DeclaringaMinor.pdf>

Courses

| Code | Title | Credits |
|----------------------|--|-----------|
| Required | | |
| BUS 300 | Business Tools for Healthcare (Spring) | 3 |
| HSCI 301 | Health, Law & Ethics (Spring) | 3 |
| HSCI 313 | Cur Issues in Comm Hlth (Fall) | 3 |
| ISEM 305 | Healthcare Economics & Policy (Fall) | 3 |
| Total Credits | | 12 |

Communication Minor

Introduction

The Communications & Media Studies (COMS) minor helps students develop communication strategies for a twenty-first century media

environment. COMS courses prepare students for careers in journalism, public relations, and media production, but students with a wide variety of career goals and interests can gain from COMS courses' focus on storytelling, messaging campaigns, and technical media production skills.

Link to Minor Form

<http://www.eastfalls.jefferson.edu/successcenter/inc/pdf/advising/DeclaringaMinor.pdf>

Courses

Choose any four Communication & Media Studies courses. Students are free to select courses based on interest and career goals. Students should review the catalog course descriptions or reach out to COMS faculty for more guidance on how to best address their needs and interests.

Computational Design Minor

Introduction

This minor introduces students to the concepts and applications of computation in architectural design, and explores computational design thinking through novel techniques, tools, processes and theories, including parametric design, geometric reasoning, algorithmic modeling, performance-based modeling, physical computing, data visualization, and digital fabrication. This minor focuses on understanding the implications of computation on design and creative processes.

Link to Minor Form

<http://www.eastfalls.jefferson.edu/successcenter/inc/pdf/advising/DeclaringaMinor.pdf>

| Code | Title | Credits |
|-------------------------------------|--------------------------------|---------|
| Select Four of the Following | | |
| ARCH 324 | Visualization: Experi Modeling | 3 |
| ARCH 413 | Experimental Structures | 3 |
| ARCH 414 | Experimental Materials | 3 |
| ARCH 415 | Visualization: Multimedia | 3 |
| INTD 306 | Adv Visualization: Interiors | 3 |
| ANIM 307 | 3D Modeling | 3 |
| ANIM 308N | 3D Animation | 4 |
| MATH 2XX | Mathematics Placeholder | 3 |
| ENGR 104 | Introduction to Computing | 3 |

Construction Management Minor

Introduction

This minor provides an introduction to construction management concepts and principles as applied to contemporary practice and investigates the intersecting roles of construction manager, architect, client, and general contractor. Topics encompass planning, programming and documentation from pre-construction to project close-out; legal aspects relative to environmental protection, public and worker safety; contract documents; insurance and bonds; labor relations

and inspection; project control; estimating and scheduling; total quality and ethics; and the development of analytical and communication skills.

Link to Minor Form

<http://www.eastfalls.jefferson.edu/successcenter/inc/pdf/advising/DeclaringaMinor.pdf>

r

Select One of the Following:

| Code | Title | Credits |
|-----------------------------|--------------------------------|---------|
| CMGT 104 | Intro to Estimating and Schdl | 3 |
| Select One of the Following | | |
| CMGT 102 | Intro the Constructn Industry | 3 |
| CMGT 607 | Intro to Construction Proj Mgt | 3 |
| Select Two of the Following | | |
| CMGT 200 | Const Proj Plann & Scheduling | 3 |
| CMGT 202 | Const Cost Estimatr & Budgtn | 3 |
| CMGT 401 | Codes and Specifications | 3 |
| CMGT 410 | Heavy Constr Princ & Practice | 3 |
| CMGT 403 | Introduction to BIM | 3 |
| CMGT 604 | Project Finance & Cost Control | 3 |
| CMGT 614 | Materials & Mthds of Construc | 3 |
| CMGT 618 | Heavy Const Principle&Practice | 3 |

Contact Program Director for recommended course sequence

—The required courses (CMGT-102/ CMGT 607-Introduction to Construction Project Management and CMGT-104) and the optional courses (CMGT-200, CMGT-202, CMGT-401, CMGT-410, CMGT-603, CMGT-604, CMGT-614, and CMGT-618) will not be substituted with any other courses.

Custom Minor

Introduction

A custom minor is a thematic grouping of at least four courses from any of the Colleges and consisting of courses found in the current university catalog. At least six credits toward the custom minor must be completed in residence. A maximum of three credits may be delivered as Independent Study or Course-by-Appointment. The student must have approval to design a custom minor. If a minor is required by the student's major, the Program Director reserves the right to identify the topic or individual courses that may not be part of a custom minor, i.e., the proposed custom minor must meet learning outcomes specified for minors within that program.

Link to Minor Form

<http://www.eastfalls.jefferson.edu/successcenter/inc/pdf/advising/DeclaringaMinor.pdf>

Courses

The student must have approval to design a custom minor. The "Declaring a Custom Minor" form contains complete details and is available online from the Learning and Advising Center website www.eastfalls.jefferson.edu/successcenter (<http://www.eastfalls.jefferson.edu/successcenter/>).

If a minor is required by the student's major, the Program Director reserves the right to identify the topic or individual courses that may not be part of a custom minor, i.e. the proposed custom minor must meet learning outcomes specified for minors within that program.

Diversity Studies Minor

Introduction

The Diversity Studies minor allows students to expand their understanding of diversity issues in the context of U.S. society. The ability to recognize, value and navigate cultural diversity is vital for both 21st century careers and citizenship in the United States. The course options in the minor give students the opportunity to explore diversity issues from a variety of cultural perspectives and academic disciplines.

Link to Minor Form

<http://www.eastfalls.jefferson.edu/successcenter/inc/pdf/advising/DeclaringaMinor.pdf>

Courses

| Code | Title | Credits | |
|-------------------------------|------------------------------|---------|-----------|
| Select four of the following: | | | |
| ADIV 200 | American Social Justice | 12 | |
| ADIV 201 | Defining American Voices | | |
| ADIV 202 | Immigrant America | | |
| ADIV 203 | Jefferson and Hemings | | |
| ADIV 204 | Red and Blue America | | |
| ADIV 206 | Gender & Diversity in the US | | |
| ADIV 211 | African American Studies | | |
| ADIV 212 | Asian American Studies | | |
| ADIV 213 | Jewish American Studies | | |
| ADIV 214 | Race in America | | |
| ADIV 215 | Latinx American Studies | | |
| ADIV 216 | LGBTQIA American Studies | | |
| ADIV 217 | Muslim American Studies | | |
| PSY 234 | Course PSY 234 Not Found | | |
| Total Credits | | | 12 |

Note: Courses taken to fulfill requirements in the Hallmarks Core cannot also be applied towards the minor. To have a Hallmarks Core course count towards the minor, students must take an additional course in that requirement category to fulfill the Hallmarks Core requirement (for example, students would need to take a second course in the American Diversity [ADIV] category if they wanted ADIV 202 Immigrant America to count towards the minor).

Entrepreneurship Minor

Introduction

The Entrepreneurship minor allows students to evaluate their skills, talents, and potential role in the entrepreneurial ecosystem; Students will apply concepts that cover all major elements of venture creation.

Link to Minor Form

<http://www.eastfalls.jefferson.edu/successcenter/inc/pdf/advising/DeclaringaMinor.pdf>

Kanbar Students

Courses

| Code | Title | Credits |
|------------------------------|-------------------------------|-----------|
| Required | | |
| MGMT 111 | Essentials of Entrepreneurshi | 3 |
| MGMT 411 | Internship ¹ | 3 |
| MKTG 302 | Prod Devp & Innovation | 3 |
| Select one of the following: | | 3 |
| MGMT 315 | Communiation & Negotiation | |
| MKTG 305 | Contemporary Brand Mgmt. | |
| MKTG 310 | Integrated Mktg Communication | |
| DECG 480 | Interdisc Integrative Project | |
| Total Credits | | 12 |

¹ Recommended as final course in minor

Non-Kanbar Students

Courses

| Code | Title | Credits |
|----------------------|-------------------------------|-----------|
| Required | | |
| DECF 102 | Finding & Shaping Opportunity | 3 |
| MGMT 111 | Essentials of Entrepreneurshi | 3 |
| MGMT 411 | Internship ¹ | 3 |
| MKTG 302 | Prod Devp & Innovation | 3 |
| Total Credits | | 12 |

¹ Recommended as final course in minor

Environmental Studies & Sustainability Minor

Introduction

Students explore how human societies and the ecosystems that support them have co-evolved over time and analyze the political, economic and cultural dynamics that have produced the sustainability challenges now clouding our future on planet Earth.

Link to Minor Form

<http://www.eastfalls.jefferson.edu/successcenter/inc/pdf/advising/DeclaringaMinor.pdf>

Courses

| Code | Title | Credits |
|-------------------------------|---|---------|
| Select four of the following: | | 12 |
| SUST 100 | Fundamentals of Sustainability ¹ | |
| SUST 102 | Water Resources and the Envir ¹ | |
| SUST 104 | The Atmosphere & the Environ. ¹ | |

| Code | Title | Credits |
|----------------------|---|-----------|
| SUST 120 | Sustainable Food Chains ¹ | |
| SUST 200 | Energy Systems & Politics ¹ | |
| SUST 202 | Ecological Economics ¹ | |
| SUST 204 | Sustainable Plannin & Land Use ¹ | |
| SUST 206 | Environmental Policy ¹ | |
| SUST 300 | Sustainable Tech for Arch ¹ | |
| SUST 302 | Life-Cycle Thinkn & Analysis ¹ | |
| SUST 402 | Managing Sustainability in Org ¹ | |
| SUST 421 | Environmental Policy ¹ | |
| LARC 310 | Introduction to GIS ² | |
| ETHC 202 | Environmental Ethics ² | |
| GCIT 208 | Course GCIT 208 Not Found ² | |
| GDIV 221 | Environment & World Culture ² | |
| ISEM 340 | Sustainable Devel&Glob South ² | |
| SCI 101 | Environmental Science ² | |
| SCI 106 | Biology for Design ^{2,3} | |
| SCI 108 | Course SCI 108 Not Found ^{2,3} | |
| SCI 110 | Landscape Ecology ² | |
| BIOL 102 | Introduction to Botany ² | |
| BIOL 319 | Oceanography ² | |
| Total Credits | | 12 |

¹ Courses with the SUST prefix are offered infrequently since the closure of the Environmental Sustainability major.

² Courses taken to fulfill requirements in a student's major or in the Hallmarks Core cannot also be applied towards the minor.

³ Due to the overlapping learning goals between SCI 106 Biology for Design and SCI 108 Course SCI 108 Not Found, students cannot take both.

Exercise Science Minor

Introduction

This minor emphasizes the close associations between physical activity, longevity, and disease prevention. It is meant for students interested in health and wellness who wish to enhance their knowledge of exercise science. In conjunction with the student's major, this minor prepares students for careers in personal training and corporate fitness, in addition to entering graduate or professional studies. Students will be prepared to sit for highly recognize certifications in the strength and conditioning industry.

Link to Minor Form

<http://www.eastfalls.jefferson.edu/successcenter/inc/pdf/advising/DeclaringaMinor.pdf>

Courses

| Code | Title | Credits |
|-----------------|---------------------------------------|---------|
| Required | | |
| HSCI 304 | Nutrition and Health | 3 |
| HSCI 305 | Concepts in Fitness & Wellnes | 3 |
| EXSC 306 | Intro to Exercise Physiology (Spring) | 3 |

| Code | Title | Credits |
|----------------------|-----------------------------|-----------|
| EXSC 307 | Intro to Kinesiology (Fall) | 3 |
| Total Credits | | 12 |

Fashion Merchandising and Management Minor

Introduction

The Fashion Merchandising and Management minor provides students with an overview of the fashion industry by exposing them to the fashion value chain which includes design concepts, product development, production, merchandising and marketing.

Link to Minor Form

<http://www.eastfalls.jefferson.edu/successcenter/inc/pdf/advising/DeclaringaMinor.pdf>

Courses

| Code | Title | Credits |
|------------------------------|--------------------------------|-----------|
| Required | | |
| FASM 101 | Global Fashion Insight | 3 |
| MKTG 217 | Retailing Strategy & Structure | 3 |
| MKTG 328 | Merchandise Buying/Operations | 3 |
| Select one of the following: | | 3 |
| FASH 304 | Course FASH 304 Not Found | |
| FASH 470 | Course FASH 470 Not Found | |
| FASM 360 | The Business of Licensing | |
| MKTG 301 | Course MKTG 301 Not Found | |
| Total Credits | | 12 |

Finance Minor

Introduction

Finance plays a crucial role in all profit and nonprofit organizations. The minor provides students with knowledge of the global financial markets, financial institutions, financial instruments, and valuable financial tools that can be used to analyze the financial viability of all decisions.

Link to Minor Form

<http://www.eastfalls.jefferson.edu/successcenter/inc/pdf/advising/DeclaringaMinor.pdf>

Courses

| Code | Title | Credits |
|-------------------------------|---|-----------|
| Select four of the following: | | 12 |
| FIN 301 | Financial Management (required for non-business students) | |
| FIN 303 | Intermediate Financial Mgmt | |
| FIN 318 | International Finance & Dev | |
| FIN 321 | Investments & Portfolio Mgmt | |
| FIN 322 | Capital Mkts & Fin Institutions | |
| FNI 412 | Course FNI 412 Not Found | |
| Total Credits | | 12 |

Gender & Health Studies Minor

In this minor health is conceptualized not only as the absence of disease, but as the result of individual, cultural, social, legal, and environmental influences. The course series provides for focused exploration of social determinants of health with a special emphasis on gender. Learners will be prepared to pursue a variety of careers with a deeper appreciation for the intersection of gender and health.

Link to Minor Form

<http://www.eastfalls.jefferson.edu/successcenter/inc/pdf/advising/DeclaringaMinor.pdf>

Courses

| Code | Title | Credits |
|-------------------------------|------------------------------|-----------|
| Select four of the following: | | 12 |
| ADIV 216 | LGBTQIA American Studies | |
| ISEM 304 | Cultures of Health & Illness | |
| LAW 308 | Law, Women and Gender | |
| HSCI 308 | Women's Health | |
| HSCI 313 | Cur Issues in Comm Hlth | |
| Total Credits | | 12 |

Genetics Minor

Introduction

The Genetics minor will offer students a strong background in a science, which is an integral part of biological and health-focused fields. Completion of the minor will equip graduates with a skillset that will enhance their professional practice. Future practitioners will gain the ability to recognize "red flags" in a family history that may indicate a future illness or explain present symptoms. In the lab, personnel will have had hands-on experience with diagnostic and investigative tools used currently in research, clinical, and forensics fields worldwide. Prerequisite: minimum grade of "C-" (1.67) in Biology II and BIOL 104L Biology II Lab, Biology II Lab (BIOL 104 Biology II/BIOL 104L Biology II Lab).

Link to Minor Form

<http://www.eastfalls.jefferson.edu/successcenter/inc/pdf/advising/DeclaringaMinor.pdf>

Courses

Students Taking BIOL 207 Principles of Genetics/BIOL 207L Principles of Genetics Lab as Part of the Major Curriculum

| Code | Title | Credits |
|----------------------|--|-----------|
| BIOL 256 | Molecular Genetics | 3 |
| BIOL 256L | Molecular Genetics Lab | 1 |
| BIOL 302 | Medical Genetics | 3 |
| BIOL 307 | Developmental Genetics | 3 |
| BIOL 402 | Genetics Seminar (required 4th course) | 3 |
| Total Credits | | 13 |

Students Who Do Not Have a Requirement to Complete BIOL 207 Principles of Genetics/BIOL 207L Principles of Genetics Lab as Part of Their Major

| Code | Title | Credits |
|------------------------------|--|--------------|
| BIOL 207 & 207L | Principles of Genetics and Principles of Genetics Lab ¹ | 4 |
| BIOL 402 | Genetics Seminar (required 4th course) | 3 |
| Select two of the following: | | 6-7 |
| BIOL 256 & 256L | Molecular Genetics and Molecular Genetics Lab | |
| BIOL 302 | Medical Genetics | |
| BIOL 307 | Developmental Genetics | |
| Total Credits | | 13-14 |

¹ Students who do not have a requirement to complete BIOL 207 Principles of Genetics/BIOL 207L Principles of Genetics Lab as part of their major will need to complete this course to satisfy prerequisite requirements for BIOL 402 Genetics Seminar (and BIOL 302 Medical Genetics if this course is elected). Students then take two of the remaining courses from among BIOL 256 Molecular Genetics/BIOL 256L Molecular Genetics Lab, BIOL 302 Medical Genetics, and BIOL 307 Developmental Genetics.

Geographic Information Systems Minor

Introduction

This minor in GIS (Geographic Information Systems) consists of four courses in geospatial technology and provides students with the opportunity to apply geospatial technology to various disciplines. The courses span introduction to advanced concepts in geospatial technology and include desktop as well as internet technologies.

Link to Minor Form

<http://www.eastfalls.jefferson.edu/successcenter/inc/pdf/advising/DeclaringaMinor.pdf>

| Code | Title | Credits |
|-------------|--------------------------------|---------|
| LARC 310 | Introduction to GIS | 3 |
| or GEOD 610 | | |
| LARC 515 | Adv GIS for Landscape Analysis | 3 |
| or GEOD 615 | | |
| GEOD 617 | Adv GIS: Urb Spial Anlytcs II | 3 |
| GEOD 625 | Inter GIS Tech for Design &Dev | 3 |

Global Studies Minor

Introduction

The Global Studies minor allows students to expand their understanding of international issues and global cultures. Intercultural skills and global perspectives are vital assets for both 21st century careers and civic responsibility. The course options in the minor give students the

opportunity to explore a variety of global topics from perspectives in the social sciences and the humanities.

Link to Minor Form

<http://www.eastfalls.jefferson.edu/successcenter/inc/pdf/advising/DeclaringaMinor.pdf>

Courses

| Code | Title | Credits |
|-------------------------------|--------------------------------|-----------|
| Select four of the following: | | 12 |
| GCIT 200 | War&Political Violence GlobSoc | |
| GCIT 210 | Human Rights | |
| GCIT 211 | The Global Economy | |
| GCIT 214 | Global Environmental Citiznshp | |
| GCIT 215 | Global Immigration | |
| GCIT 225 | Global Politics | |
| GDIV 200 | Comp Mod Globl Cultures of Mod | |
| GDIV 221 | Environment & World Culture | |
| GDIV 229 | Intercultural Encounters | |
| GDIV 231 | The Spanish Speaking World | |
| GDIV 233 | World Cinemas | |
| GDIV 235 | World Religions | |
| GDIV 333 | Pop Culture in Global Society | |
| ISEM 340 | Sustainable Devel&Glob South | |
| Total Credits | | 12 |

Note: Courses taken to fulfill requirements in the Hallmarks Core cannot also be applied towards the minor. To have a Hallmarks Core course count towards the minor, students must take an additional course in that requirement category (for example, students would need to take a second course in the Global Citizenship [GCIT] category they you wanted GCIT 225 Global Politics to count towards the minor).

Graphic Design Minor (Animation & Digital Students)

Introduction

The Graphic Design minor introduces students to conceptual, aesthetic, and technological skills associated with the discipline. Courses focus on design principles and thinking as related to visual communication, typography, image making, branding, information gathering and organization, research and concept development, with consideration for audience and context.

Link to Minor Form

<http://www.eastfalls.jefferson.edu/successcenter/inc/pdf/advising/DeclaringaMinor.pdf>

| Code | Title | Credits |
|----------------------|----------------------------------|---------|
| Prerequisites | | |
| GRDS 201 | Course GRDS 201 Not Found (Fall) | 3 |

Courses

| Code | Title | Credits |
|---|--------------------------------|-----------|
| Required | | |
| GRPH 202 | Design IV for Graph Dsgn Comm | 3 |
| GRPH 301 | Design V for Graph Design Comm | 3 |
| Select two of the following (as necessary to reach 13 total credits): | | 6 |
| GRPH 208 | History of Graphic Design | |
| GRPH 305 | Exhibit Design and Signage | |
| GRPH 341 | Illustration | |
| GRPH 408 | Advanced Publication Design | |
| GRPH 409 | Issues in Information Design | |
| DIGD 206 | Found in Web Design & Strategy | |
| Total Credits | | 12 |

Graphic Design Minor (Design Majors)

Introduction

The Graphic Design minor introduces students to conceptual, aesthetic, and technological skills associated with the discipline. Courses focus on design principles and thinking as related to visual communication, typography, image making, information gathering and organization, research and concept development, with consideration for audience and context.

Link to Minor Form

<http://www.eastfalls.jefferson.edu/successcenter/inc/pdf/advising/DeclaringaMinor.pdf>

| Code | Title | Credits |
|--------------------------------------|--|---------|
| Prerequisites | | |
| DRAW 101 | Drawing Essentials (all design majors) | 3 |
| Select one or more of the following: | | 3-4 |
| VDES 101 | Design Essentials | |
| ADFND 101 | Course ADFND 101 Not Found (Arch. & Interior Design) | |
| INDD 101 | Design 1 for Industrial Design | |

Courses

| Code | Title | Credits |
|------------------------------|--|-----------|
| Required | | |
| GRPH 110 | Digital Imagn for Graphic Desg (all semesters) | 3 |
| GRPH 102 | Intro to Graphic Design (Spring) | 3 |
| GRPH 201 | Design III for Graph Dsgn Comm (Fall) | 3 |
| Select one of the following: | | 3 |
| GRPH 202 | Design IV for Graph Dsgn Comm | |
| GRPH 208 | History of Graphic Design | |
| GRPH 305 | Exhibit Design and Signage | |
| GRPH 341 | Illustration | |
| GRPH 408 | Advanced Publication Design | |
| GRPH 409 | Issues in Information Design | |
| Total Credits | | 12 |

Graphic Design Minor (Non-Design Students)

Introduction

The Graphic Design minor introduces students to conceptual, aesthetic, and technological skills associated with the discipline. Courses focus on design principles and thinking as related to visual communication, typography, image making, information gathering and organization, research and concept development, with consideration for audience and context.

Link to Minor Form

<http://www.eastfalls.jefferson.edu/successcenter/inc/pdf/advising/DeclaringaMinor.pdf>

Courses

| Code | Title | Credits |
|---------------------------------------|--|-----------|
| Required (In Sequential Order) | | |
| VDES 101 | Design Essentials | 3 |
| GRPH 110 | Digital Imagn for Graphic Desg (all semesters) | 3 |
| GRPH 102 | Intro to Graphic Design (Spring) | 3 |
| GRPH 201 | Design III for Graph Dsgn Comm (Fall) | 3 |
| Total Credits | | 12 |

Historic Preservation Minor

Introduction

This minor provides a foundation in the field of historic preservation. Courses cover contemporary practice and fieldwork, sustainability issues, building conservation, methods of archival research, standards for documentation, American architectural traditions, as well as design considerations in the adaptive reuse of historic structures.

Link to Minor Form

<http://www.eastfalls.jefferson.edu/successcenter/inc/pdf/advising/DeclaringaMinor.pdf>

| Code | Title | Credits |
|-------------------------------|--------------------------------|---------|
| Required | | |
| ARST 221 | Contemporary Preservation | 3 |
| Select Three of the Following | | |
| ARST 302 | Unco the Past:Tools,Methods&St | 3 |
| ARST 266 | Building Conservation | 3 |
| ARST 403 | Rest & Rehab of Modernst Bldgs | 3 |
| ARST 341 | American Architecture | 3 |
| ARST 410 | Vernacular Architecture | 3 |
| ARST 412 | Adaptiv Reuse & Urban Regener | 3 |
| ARST 404 | Consv Historic Build Interiors | 3 |
| POTO 436 | Historic Pres Doc: Photography | 3 |

Prerequisites:

ARST-221/MHP-621 Issues in Contemporary Preservation
AHIST-206

Choose three of the following:

| Course | Prerequisite |
|----------|----------------------------------|
| ARST 302 | AHIST 206 |
| ARST 324 | ARCH 102 or INTD 102 or LARC 102 |
| ARST 266 | ARCH 102 OR INTD 102 OR LARC 102 |
| ARST 403 | AHIST 305 |
| ARST 341 | AHIST 206 |
| ARST 410 | AHIST 206 |
| ARST 412 | ARCH 214 or INTD 202 or LARC 300 |
| ARST 404 | ARCH 102 or INTD 102 or LARC 102 |

Note—Historic Preservation courses are cross-leveled, offering undergraduate and graduate options. Students interested in the dual degree/MS Historic Preservation should consult the Program Director to map appropriate coursework.

Interior Design Minor

Introduction

The Interior Design Minor consists of four courses unique to the interior design curriculum and totaling 12-16 credits. The selection of courses offered for the minor will expand the knowledge of architecture and architectural studies students to better understand the special requirements of interior design.

For **B.S. in Architectural Studies** students who wish to minor in interior design the required courses include at least one interior design studio and three other interior design courses (= 4 courses). Students will complete 13-16 unique credits for the minor

Link to Minor Form

<http://www.eastfalls.jefferson.edu/successcenter/inc/pdf/advising/DeclaringaMinor.pdf>

| Code | Title | Credits |
|---------------------------------------|-------------------------------|---------|
| Select One of the Following Courses | | |
| INTD 201 | Design 3 for Interior Design | 4 |
| INTD 202 | Design 4 for Interior Design | 4 |
| INTD 301 | Design 5 for Interior Design | 6 |
| Select Three of the Following Courses | | |
| INTD 201 | Design 3 for Interior Design | 4 |
| INTD 202 | Design 4 for Interior Design | 4 |
| INTD 301 | Design 5 for Interior Design | 6 |
| INTD 206 | Interior Building Technology | 3 |
| INTD 310 | Textiles & Mat for Interiors | 3 |
| INTD 325 | Furniture Design | 3 |
| IARC 603 | Hist of Design 2 for Int Arch | 3 |
| IARC 608 | Light and Color | 3 |

For **Bachelor of Architecture** students who wish to minor in interior design at least one interior design studio must be taken. If the BArch student takes an interior design studio* for the ARCH-401 Design 7 option of the BArch degree requirement then the four courses (12-16

cr.) taken for the interior design minor do not have to include an interior design studio. However, if the BArch student has not completed an interior design studio for the ARCH-401 Design 7 requirement then the student is required to take an interior design studio* as one of the four courses that count toward the minor. Select **four** from the list below that have not already been taken to count as ARCH-401 Design 7 for the BArch degree requirement (must complete a min. of 12 unique credits for the minor)

| Code | Title | Credits |
|----------|-------------------------------|---------|
| INTD 201 | Design 3 for Interior Design | 4 |
| INTD 202 | Design 4 for Interior Design | 4 |
| INTD 301 | Design 5 for Interior Design | 6 |
| INTD 206 | Interior Building Technology | 3 |
| INTD 310 | Textiles & Mat for Interiors | 3 |
| INTD 325 | Furniture Design | 3 |
| IARC 603 | Hist of Design 2 for Int Arch | 3 |
| IARC 608 | Light and Color | 3 |

International Business Minor Introduction

The world in which business is being conducted is changing rapidly and is creating new challenges and opportunities for managers. The International Business minor is provided for students who want to strengthen their knowledge and understanding of global changes and their impact on business.

Link to Minor Form

<http://www.eastfalls.jefferson.edu/successcenter/inc/pdf/advising/DeclaringaMinor.pdf>

Courses

| Code | Title | Credits |
|----------------------|-----------------------------|-----------|
| Required | | |
| ECON 401 | International Economics | 3 |
| FIN 318 | International Finance & Dev | 3 |
| MGMT 307 | International Management | 3 |
| MKTG 324 | International Marketing | 3 |
| Total Credits | | 12 |

Landscape Architecture Minor Introduction

These two 12 credit minors, **Landscape Design** and **Landscape Planning**, introduce the student to the field of landscape architecture.

For the **Landscape Design** minor, the required courses cover the various areas—history/theory, technology, horticulture and design—that constitute an understanding of the discipline relative to design.

For the **Landscape Planning** minor, the required courses cover the various areas—technology and history—that are needed for an understanding of the discipline relative to planning

Link to Minor Form

<http://www.eastfalls.jefferson.edu/successcenter/inc/pdf/advising/DeclaringaMinor.pdf>

Landscape Design

| Code | Title | Credits |
|-------------------------------------|--------------------------------|---------|
| Select One of the Following Courses | | |
| LARC 212 | Local Flora | 3 |
| LARC 305 | Plant Community Ecology | 3 |
| LARC 305 | Plant Community Ecology | 3 |
| LARC 409 | LA Tech: Materials and Methods | 3 |
| SCI 110 | Landscape Ecology | 1 |
| Select one of the Following Courses | | |
| LARC 206 | History of Landscape Arch 1 | 3 |
| LARC 307 | History of Landscape Arch 2 | 3 |
| Select one of the Following Courses | | |
| LARC 300 | La Design 4: Urban Dsgn I | 6 |
| LARC 304 | LA Design 5: Community Design | 6 |
| LARC 400 | La Design 6: Restoration Mgmt | 6 |
| LARC 401 | LA Design 7: Interdisc Design | 6 |

Landscape Planning

| Code | Title | Credits |
|--|-----------------------------|---------|
| Select Two or Three of the Following Courses | | |
| LARC 212 | Local Flora | 3 |
| LARC 305 | Plant Community Ecology | 3 |
| LARC 305 | Plant Community Ecology | 3 |
| LARC 310 | Introduction to GIS | 3 |
| LARC 412 | LA Tech: Urban Hydrology | 3 |
| SCI 110 | Landscape Ecology | 1 |
| Select One or Two of the Following Courses | | |
| LARC 206 | History of Landscape Arch 1 | 3 |
| LARC 307 | History of Landscape Arch 2 | 3 |

Landscape Design Minor

Introduction

This 12 credit minor introduces the student to the field of landscape architecture. The required courses cover the various areas—history/theory, technology, horticulture and design—that constitute an understanding of the discipline relative to design.

Link to Minor Form

<http://www.eastfalls.jefferson.edu/successcenter/inc/pdf/advising/DeclaringaMinor.pdf>

Required Courses

| Code | Title | Credits |
|------------------------------|-------------------------|---------|
| Select one of the following: | | |
| SCI 110 | Landscape Ecology | 3 |
| LARC 212 | Local Flora | |
| LARC 305 | Plant Community Ecology | |
| LARC 310 | Introduction to GIS | |

| Code | Title | Credits |
|------------------------------|--------------------------------|-----------|
| LARC 312 | Sustainable Planting Design | |
| LARC 409 | LA Tech: Materials and Methods | |
| LARC 412 | LA Tech: Urban Hydrology | |
| Select one of the following: | | 3 |
| LARC 206 | History of Landscape Arch 1 | |
| LARC 307 | History of Landscape Arch 2 | |
| Select one of the following: | | 6 |
| LARC 300 | La Design 4: Urban Dsgn I | |
| LARCH 304 | Course LARCH 304 Not Found | |
| LARC 400 | La Design 6: Restoration Mgmt | |
| LARC 401 | LA Design 7: Interdisc Design | |
| Total Credits | | 12 |

Landscape Planning Minor

Introduction

This 12 credit minor introduces the student to the field of landscape planning. The required courses cover the various areas—technology and history—that are needed for an understanding of the discipline relative to planning.

Link to Minor Form

<http://www.eastfalls.jefferson.edu/successcenter/inc/pdf/advising/DeclaringaMinor.pdf>

Required Courses

| Code | Title | Credits |
|---------------------------------------|--------------------------------|-------------|
| Select two or three of the following: | | |
| SCI 110 | Landscape Ecology | 6-9 |
| LARC 212 | Local Flora | |
| LARC 305 | Plant Community Ecology | |
| LARC 310 | Introduction to GIS | |
| LARC 312 | Sustainable Planting Design | |
| LARC 409 | LA Tech: Materials and Methods | |
| LARC 412 | LA Tech: Urban Hydrology | |
| Select one or two of the following: | | 3-6 |
| LARC 206 | History of Landscape Arch 1 | |
| LARC 307 | History of Landscape Arch 2 | |
| Total Credits | | 9-15 |

Law and Society Minor

Introduction

The Law and Society minor will contribute to students' understanding of law from interdisciplinary perspectives (sociology, psychology, anthropology and political science). It will prepare students for professional careers in fields that rely on critical thinking and written and oral advocacy skills. The Law and Society minor will also provide a firm background in legal, political and social issues for students who are focusing on a broad array of other professional fields at Thomas Jefferson University such as: communications, pre-med, environmental sustainability, business, design, psychology, midwifery and physician assistance.

Link to Minor Form

<http://www.eastfalls.jefferson.edu/successcenter/inc/pdf/advising/DeclaringaMinor.pdf>

Courses

| Code | Title | Credits |
|-------------------------------|--------------------------------|-----------|
| Select four of the following: | | 12 |
| LAW 101 | Introduction to Law & Society | |
| LAW 103 | Crime and Justice | |
| LAW 105 | American Government | |
| LAW 201 | Constitutional Law | |
| LAW 203 | Comparative Legal Systems | |
| LAW 213 | Consp Ther:Hist,Analysis,Decon | |
| LAW 300 | International Law | |
| LAW 302 | Law and Ethics | |
| LAW 304 | Law, Media & Society | |
| LAW 306 | Legal Res, Wrtg & Moot Court | |
| LAW 411 | Senior Sem in First Amendment | |
| Total Credits | | 12 |

Management Minor

Introduction

Management skills are necessary in both non-supervisory and supervisory positions. This group of courses helps students to develop vital professional and managerial skills, including communication, teamwork, conflict resolution, and leadership. Together with the knowledge base learned in students' major fields, this minor increases students' understanding of all types of organizations and jobs, and increases opportunities for entry-level and managerial positions.

Link to Minor Form

<http://www.eastfalls.jefferson.edu/successcenter/inc/pdf/advising/DeclaringaMinor.pdf>

Courses

| Code | Title | Credits |
|-------------------------------|---------------------------------------|-----------|
| Select four of the following: | | 12 |
| MGMT 301 | Principles of Management ¹ | |
| MGMT 310 | People & Teams in Organizatns | |
| MGMT 320 | Human Resources Prac & Tools | |
| MGMT 307 | International Management | |
| MGMT 309 | Systems Analysis | |
| MGMT 315 | Communiation & Negotiation | |
| MGMT 111 | Essentials of Entrepreneurshi | |
| MGMT 411 | Internship | |
| Total Credits | | 12 |

¹ Required for non-business majors only

Marketing Minor

Introduction

The marketing of goods or services is the central focus of most profit and nonprofit organizations. Thus, regardless of students' majors, a solid understanding and appreciation of the marketing discipline will enhance students' decision-making capabilities and make them better managers.

Link to Minor Form

<http://www.eastfalls.jefferson.edu/successcenter/inc/pdf/advising/DeclaringaMinor.pdf>

Courses

| Code | Title | Credits |
|-------------------------------|--------------------------------------|-----------|
| Select four of the following: | | 12 |
| MKTG 102 | Principles of Marketing ¹ | |
| MKTG 207 | Consumer in the Market Place | |
| MKTG 305 | Contemporary Brand Mgmt. | |
| MKTG 310 | Integrated Mktg Communication | |
| MKTG 315 | Mktg in a Digital Environment | |
| MKTG 324 | International Marketing | |
| MKTG 391 | Marketing Research | |
| Total Credits | | 12 |

¹ Required for non-business students

Medical Spanish Minor

Introduction

The Medical Spanish minor includes language and culture courses related to the Spanish-speaking world. Students must take a minimum of two Medical Spanish courses to complete the minor. Courses taken on Study Abroad programs are reviewed on a case-by-case basis, as are courses transferred in from other

Link to Minor Form

<http://www.eastfalls.jefferson.edu/successcenter/inc/pdf/advising/DeclaringaMinor.pdf>

Courses

| Code | Title | Credits |
|------------------------------|----------------------------|-----------|
| Required | | |
| SPAN 202 | Intermediate Spanish II | 3 |
| SPAN 302 | Course SPAN 302 Not Found | 3 |
| Select two of the following: | | 6 |
| SPAN 101 | Beginning Spanish I | |
| SPAN 201 | Intermediate Spanish I | |
| SPAN 301 | Course SPAN 301 Not Found | |
| SPAN 401 | Course SPAN 401 Not Found | |
| GDIV 231 | The Spanish Speaking World | |
| Total Credits | | 12 |

Multimedia & Visualization Minor

Introduction

This minor introduces students to the conceptual and technical issues involved in creating and producing multimedia and visualization projects. Emphasis will focus on the application of digital technologies to enhance the design and presentation process.

Link to Minor Form

<http://www.eastfalls.jefferson.edu/successcenter/inc/pdf/advising/DeclaringaMinor.pdf>

Courses

| Code | Title | Credits |
|----------------------|--------------------------------|-----------|
| Required | | |
| ARCH 324 | Visualization: Experi Modeling | 3 |
| ARCH 326 | Visualization 2: Adv Modeling | 3 |
| ARCH 415 | Visualization: Multimedia | 3 |
| GRPH 310 | Digital Imaging & Photo Manip | 3 |
| Total Credits | | 12 |

Photography Minor

Introduction

This minor provides a foundation in photographic techniques, processes, history and theory. Coursework focuses upon photography: as a tool for the documentation, research and preservation of architecture, as part of visual culture in its application to commercial, fashion, advertising and product design, and as a medium for self-expression.

Link to Minor Form

<http://www.eastfalls.jefferson.edu/successcenter/inc/pdf/advising/DeclaringaMinor.pdf>

| Code | Title | Credits |
|-----------------------------|--------------------------------|---------|
| POTO 101 | Intro to Photo: Black & White | 3 |
| POTO 102 | Intro to Photography: Digital | 3 |
| POTO 307 | History of Photography | 3 |
| Select One of the Following | | |
| POTO 436 | Historic Pres Doc: Photography | 3 |
| POTO 201 | Studio Photography | 3 |
| POTO 204 | Intro to Photo Graphic Design | 3 |
| POTO 303 | Photograph Med Experimentation | 3 |
| POTO 205 | Photography as Communication | 3 |

Prerequisite

| Course | Prerequisite |
|----------|--------------|
| POTO 307 | WRIT 201/202 |

Pre-MBA Minor (For Business Students)

Introduction

The Pre-MBA minor for Business majors provides the opportunity to begin taking graduate-level business courses in the senior year, allowing students who have completed their Bachelor of Science Degree to complete a MBA degree in one year. This minor is for undergraduate business majors only. Students may only begin taking graduate courses in senior year with prior approval of MBA program director.

Link to Minor Form

<http://www.eastfalls.jefferson.edu/successcenter/inc/pdf/advising/DeclaringaMinor.pdf>

Courses

| Code | Title | Credits |
|--|-------------------------------|-----------|
| Required | | |
| IMBA 627 | Competitive Tech Intelligence | 3 |
| IMBA 628 | Accounting for Mgmt Decisions | 3 |
| Select two additional courses ¹ | | 6 |
| Total Credits | | 12 |

¹ In consultation with upper-level advisor and MBA Program Director

Pre-MBA Minor (Non-Business)

Introduction

Provides students the opportunity to take two graduate level business courses in their senior year, as well as other courses that position them to complete the MBA in one year of full-time study following the completion of their bachelor's degrees.

The Accounting (CPA) and Finance (CFA) MBA options are typically limited to students with undergraduate degrees in accounting or finance. It is highly recommended that students interested in these fields consult with their academic advisors prior to enrolling in classes.

Link to Minor Form

<http://www.eastfalls.jefferson.edu/successcenter/inc/pdf/advising/DeclaringaMinor.pdf>

Courses

| Code | Title | Credits |
|------------------------------|-------------------------------|---------|
| Required | | |
| IMBF 504 | Financial & Managerial Acct. | 1.5 |
| IMBF 511 | Microeconomics | 1.5 |
| IMBF 512 | Macroeconomics | 1.5 |
| IMBF 505 | Financial Management | 1.5 |
| IMBF 508 | Stat. Analysis for Bus Decisn | 1.5 |
| IMBF 510 | Operations Management | 1.5 |
| Select one of the following: | | 3 |
| IMBA 627 | Competitive Tech Intelligence | |

| Code | Title | Credits |
|----------------------|-------------------------------|-----------|
| IMBA 628 | Accounting for Mgmt Decisions | |
| Total Credits | | 12 |

Professional and Strategic Writing Introduction

The Professional and Strategic Writing (PSW) program helps students develop text and textual strategies for corporate, governmental and organizational settings. As all sectors hire writers, PSW courses prepare students for careers in any setting where user testing, instructions, procedures, or regulation are required; online retail, pharmaceutical guidelines, governmental applications and manufacturing details are all examples of professional and technical communication. Students with a wide range of career goals and interests can gain from PSW courses' focus on analysis, empathy, accuracy, and language justice. Because technical and professional writers are *explainers* who make processes accessible, PSW courses prioritize language diversity and welcome students from all linguistic backgrounds.

Link to Minor Form

<https://www.jefferson.edu/content/dam/academic/academic-affairs/registrar/forms/Declaring-Minor-Form.pdf>

Courses (12 credits)

Choose any four Professional and Strategic Writing courses. Students are free to select courses based on interest and career goals. Students should review the catalog course descriptions or reach out to PSW faculty for more guidance on how to best address their needs and interests.

Psychology Minor Introduction

Psychology is the scientific study of behavior and mental processes. Psychologists examine behavior from many different perspectives, including behavioral, cognitive, biological, evolutionary, cross-cultural, psychodynamic, and humanistic perspectives. Students who minor in Psychology will learn about the causes of human behavior and the experimental methods used to gather information. Completion of this minor will help students understand more fully their own behavior and the behavior of others. The many different subdisciplines of psychology ensure its relevance to students across all majors on campus.

Link to Minor Form

<http://www.eastfalls.jefferson.edu/successcenter/inc/pdf/advising/DeclaringaMinor.pdf>

Course

| Code | Title | Credits |
|---|---------------------|-----------|
| Required | | |
| PSYC 101 | Intro to Psychology | 3 |
| Select three additional Psychology courses ¹ | | 9 |
| Total Credits | | 12 |

¹ Students are free to select courses based on interest and career goals. Students should review the catalog course descriptions and discuss potential courses with their advisor.

Public Health Introduction

Public health may be an excellent minor for students in a variety of majors such as Environmental and Conservation Biology, Pre-medical Studies, Economics, Biology, Engineering and Environmental Sustainability.

Link to Minor Form

<http://www.eastfalls.jefferson.edu/successcenter/inc/pdf/advising/DeclaringaMinor.pdf>

Courses

| Code | Title | Credits |
|------------------------------|--|-----------|
| Required | | |
| HSCI 313 | Cur Issues in Comm Hlth | 3 |
| HSCI 304 | Nutrition and Health | 3 |
| Select two of the following: | | 6 |
| BIOL 209 | Medicinal Plants | 3 |
| BIOL 305 | Preventative Medicine | 3 |
| ISEM 304 | Cultures of Health & Illness | 3 |
| ISEM 305 | Healthcare Economics & Policy | 3 |
| PSYC 222 | Counseling Psychology | 3 |
| PSYC 224 | Psychology of Addiction | 3 |
| PSYC 243 | Human Sexuality | 3 |
| DMM 643 | Public Health ImplOf Disasters (senior-status) | 3 |
| HSCI 308 | Women's Health | 3 |
| HSCI 309 | Children's Health | 3 |
| Total Credits | | 42 |

Real Estate Development Minor Introduction

Introduction

This minor introduces the economic, social and physical issues inherent in environmentally and fiscally sustainable real estate and land-use development. Through real-world case studies presented by leading developers, coursework encompasses market analysis and valuation, finance and investment, legal issues of ownership and land-use, public-private partnerships, urban regeneration and adaptive reuse, construction science and management, in addition to multiple design and development paradigms and their long-term local, national, and global impacts. Sustainable strategies inform a curriculum sensitive both to the ethical dimension of development and the parameters of a capital-driven market.

Link to Minor Form

<http://www.eastfalls.jefferson.edu/successcenter/inc/pdf/advising/DeclaringaMinor.pdf>

| Code | Title | Credits |
|-------------------------------|--------------------------------|---------|
| Required Course | | |
| MRE 601 | Sustain Real Estate Dev Proc | 3 |
| Select Three of the Following | | |
| MRE 604 | CS: Mixed Use, Comm, Hlth Care | 3 |
| MRE 615 | Real Estate Fin & Investment | 3 |
| MRE 620 | Case Study Studio:UrbanRevital | 3 |
| MRE 625 | Real Estate Law & Eth Pract | 3 |
| MRE 630 | Market Analysis and Valuation | 3 |
| MRE 635 | Public Private Partnerships | 3 |
| MRE 638 | Case Study:Sust Afford Housing | 3 |

Spanish Minor

Introduction

The Spanish minor includes language and culture courses related to the Spanish-speaking world. Students must take a minimum of two language courses to complete the minor. Courses taken on Study Abroad programs are reviewed on a case-by-case basis, as are courses transferred in from other institutions.

Link to Minor Form

<http://www.eastfalls.jefferson.edu/successcenter/inc/pdf/advising/DeclaringaMinor.pdf>

Courses

| Code | Title | Credits |
|-------------------------------|----------------------------|---------|
| Select four of the following: | | |
| SPAN 101 | Beginning Spanish I | 12 |
| SPAN 201 | Intermediate Spanish I | |
| SPAN 301 | Course SPAN 301 Not Found | |
| SPAN 401 | Course SPAN 401 Not Found | |
| SPAN 202 | Intermediate Spanish II | |
| SPAN 302 | Course SPAN 302 Not Found | |
| GDIV 231 | The Spanish Speaking World | |

Sports Management Minor

The undergraduate minor in Sports Management provides students with an overview of foundational concepts within the sport, leisure, recreation, and health and wellness industry. The sport management minor curriculum, open to all undergraduate majors, provides a collegiate experience geared towards students interested in developing the knowledge and skillset needed to plan, execute, manage, and evaluate sport organizations, events, consumers and promotions. Students selecting this minor should have an interest in learning about the domestic and global sports industry, with insights on emerging trends, challenges, and career opportunities. Students are introduced to specific facets of the industry relating to sports marketing, sports psychology, and sports communication in greater detail.

Link to Minor Form

<http://www.eastfalls.jefferson.edu/successcenter/inc/pdf/advising/DeclaringaMinor.pdf>

Courses

| Code | Title | Credits |
|----------------------|---------------------------|-----------|
| Required | | |
| BUS 200 | Intro to Sports Business | 3 |
| PSYC 215 | Sports Psychology | 3 |
| COMM 314 | Course COMM 314 Not Found | 3 |
| MKTG 300 | Sports Marketing | 3 |
| Total Credits | | 12 |

Sustainable Design Minor

Introduction

The minor introduces students to the theory of sustainability and how it is applied in the built environment. Students will be grounded in the methodologies of sustainable design, learn to measure, predict and design for thermal comfort, adaptable opportunities and resilience across scales. Students will also learn how to design and calculate sustainable systems, and learn to evaluate, compare, perform life cycle analyses of materials.

Link to Minor Form

<http://www.eastfalls.jefferson.edu/successcenter/inc/pdf/advising/DeclaringaMinor.pdf>

| Code | Title | Credits |
|---------|--------------------------------|---------|
| SDN 601 | Princ & Methods of Sust Design | 3 |
| SDN 602 | Adaptive & Resilient Dsgn Sdio | 3 |
| SDN 603 | Sustainable Building Systems | 3 |
| SDN 604 | Life Cycle Assess & Circ Ecnmy | 3 |
| SDN 609 | Building Info Modeling for SD | 3 |

Textile Design Minor

Introduction

The Textile Design minor consists of four courses unique to the textile design curriculum totaling 12 credits. The selection of courses offered for the minor will expand the knowledge of design across multiple textile platforms, enabling students to better understand the unique creative opportunities within textile design.

Link to Minor Form

<http://www.eastfalls.jefferson.edu/successcenter/inc/pdf/advising/DeclaringaMinor.pdf>

Courses

| Code | Title | Credits |
|----------------------|-------------------------------|-----------|
| Required | | |
| KNIT 201 | Knit Technology I | 3 |
| WEAV 201 | Weave Technology I | 3 |
| TEXT 105 | Text Des. Studio I: Ideation | 3 |
| TEXT 205 | Text. Des. Studio II: Fashion | 3 |
| Total Credits | | 12 |

Textile Product Science Minor Introduction

The TPS minor offers students an introduction to the process flow of fibers through finished products. A sequence of four courses will give a student the opportunity to understand the interdisciplinary nature of textile materials in a wide variety of disciplines and their potential capabilities and limitations.

Link to Minor Form

<http://www.eastfalls.jefferson.edu/successcenter/inc/pdf/advising/DeclaringaMinor.pdf>

Courses

| Code | Title | Credits |
|--------------------------------|--|-----------|
| TEXT 101 | Survey of Textile Industry | 3 |
| or TEXT 104 | FoundationFiber & Yarn Studies | |
| Select three of the following: | | 9 |
| KNIT 201 | Knit Technology I | |
| KNIT 205 | Knit Technology II | |
| WEAV 201 | Weave Technology I | |
| WEAV 301 | Weave Technology II | |
| TEXT 321 | Nonwovens | |
| TEXT 307 | Textile Materials | |
| TEXC 202 & 202L | Course TERC 202 Not Found and Course TERC 202L Not Found | |
| Total Credits | | 12 |

Urban Design Minor Introduction

This minor provides an introduction to fundamental concepts and methods of urban design, and explores sustainable and smart cities. The required and recommended courses offer students an in-depth knowledge and advanced tools to address climate change, public health, pandemics and other challenges by incorporating urban analytics, environmental modeling, computational design, geospatial technology, and smart technologies into urban environments. \

Link to Minor Form

<http://www.eastfalls.jefferson.edu/successcenter/inc/pdf/advising/DeclaringaMinor.pdf>

| Code | Title | Credits |
|------------------------------------|--------------------------------|---------|
| Required Courses | | |
| MUD 600 | Modeling Urban Enviro Perf | 3 |
| LARC 310 | Introduction to GIS | 3 |
| or GEOD 610 | | |
| Select Two of the Following | | |
| LARC 515 | Adv GIS for Landscape Analysis | 3 |
| MUD 615 | AdvGIS:Urban Spatial Analytics | 3 |
| GEOD 615 | Adv GIS:Urbn Spctl Anlytcs 1 | 3 |
| MUD 617 | Adv GIS: Urb Spat Analytics II | 3 |
| GEOD 617 | Adv GIS: Urb Sprial Anlytcs II | 3 |
| MUD 602 | Hist & Theory of Urban Design | 3 |

| Code | Title | Credits |
|----------|--------------------------------|---------|
| GEOD 625 | Inter GIS Tech for Design &Dev | 3 |
| SDN 601 | Princ & Methods of Sust Design | 3 |
| MRE 601 | Sustain Real Estate Dev Proc | 3 |
| LARC 414 | Intro to Horticulture Therapy | 3 |

Visual Studies Introduction

The Visual Studies minor introduces students to the design process through the application of the fundamental principles of design and drawing. Students will develop skills including: a sensitivity to value and color, experimentation with a variety of media, process methodologies, and problem-solving strategies.

Link to Minor Form

<http://www.eastfalls.jefferson.edu/successcenter/inc/pdf/advising/DeclaringaMinor.pdf>

| Code | Title | Credits |
|--|--------------------------------|---------|
| Select One | | |
| VDES 101 | Design Essentials | 3 |
| ARFD 101 | Design 1 | 4 |
| INDD 101 | Design 1 for Industrial Design | 4 |
| DSGF 103 | Design Foundations I | 3 |
| DSGN 423 | Transfer Credit in Design | 3 |
| Select One | | |
| DRAW 101 | Drawing Essentials | 3 |
| ARFD 103 | Visualization 1 | 3 |
| VDRW 101 | Visual Studies:Drawing | 3 |
| Select Two | | |
| ARFD 102 | Course ARFD 102 Not Found | 3 |
| ARFD 108 | Course ARFD 108 Not Found | 3 |
| ARFD 109 | Course ARFD 109 Not Found | 3 |
| CAD 201 | Intro to Digital Imaging | 3 |
| CAD 204 | Digital Fashion Design I | 3 |
| CAD 206 | CAD I for Industrial Design | 3 |
| DRAW 201 | Drawing II for Graphic Design | 3 |
| DRAW 206 | Drawing II: Figure Drawing | 3 |
| DRAW 303 | Drawing: Materials/Techniques | 3 |
| DSGF 203 | Design Foundations II | 3 |
| INTD 102 | Course INTD 102 Not Found | 4 |
| LARC 102 | Course LARC 102 Not Found | 4 |
| Design course approved by Director of that program | | |

Web Design Minor (For Non-Visual Communication Students)

Introduction

The Web Design minor introduces students to digital product design, strategy, and the technological skills associated with the discipline. Courses focus on digital design fundamentals, experiential design,

user interface design, strategy, information architecture, prototyping, usability, front-end development and software.

Link to Minor Form

<http://www.eastfalls.jefferson.edu/successcenter/inc/pdf/advising/DeclaringaMinor.pdf>

Courses

| Code | Title | Credits |
|----------------------|--|-----------|
| Required | | |
| DIGD 200 | Fundamentals of Web Programming ¹ | 3 |
| DIGD 206 | Found in Web Design & Strategy ¹ | 3 |
| DIGD 320 | Javascript Programing | 3 |
| DIGD 403 | Web Development | 3 |
| or DIGD 307 | Advanced Web Design & Strategy | |
| Total Credits | | 12 |

¹ IDD 510 Essentials of Interactive Des (Graduate Studio, 6cr.) can be taken in place of DIGD 200 Fundamentals of Web Programming & DIGD 206 Found in Web Design & Strategy

Web Design Minor (For Visual Studies Students)

Introduction

The Web Design minor introduces students to digital product design, strategy, and the technological skills associated with the discipline. Courses focus on digital design fundamentals, experiential design, user interface design, strategy, information architecture, prototyping, usability, front-end development and software.

Link to Minor Form

<http://www.eastfalls.jefferson.edu/successcenter/inc/pdf/advising/DeclaringaMinor.pdf>

Courses

| Code | Title | Credits |
|----------------------|--------------------------------|-----------|
| Required | | |
| DIGD 307 | Advanced Web Design & Strategy | 3 |
| DIGD 320 | Javascript Programing | 3 |
| DIGD 403 | Web Development | 3 |
| DIGD | Elective | 4 |
| Total Credits | | 13 |

INDEX

C

/colleges-schools/college-health-professions-jchp/institute-emerging-health-professions/cardiovascular-perfusion-post-professional-ms/text/ 100

A

A Brief History of the University 13

Academic Calendars 15

Academic Programs 25

Accelerated & Dual Degree Programs 25

Accounting (BS) 200

Accounting Minor 573

Accreditations 13

Admissions 16

Advanced Biotherapeutics Manufacturing & Regulatory Affairs (MS) ... 196

Advanced Headache Diagnosis & Management (Post-Graduate Certificate) 146

American Diversity (ADIV) 236

American Studies (AMST) 239

Anatomy (ANAT) 405

Anatomy (ANAT) 551

Anesthesiology (ANES) 551

Animation & Digital Media (BS) 216

Animation & Digital Media Minor 573

Animation (ANIM) 240

Anthropology (ANTH) 241

Applied Business Analytics (ABA) 241

Applied Business Analytics Minor 573

Applied Health Economics (AHE) 405

Applied Health Economics & Outcomes Research (Graduate Certificate) 160

Applied Health Economics & Outcomes Research (MS) 160

Arch & Interiors History (AHST) 242

Architectural Engineering (AREN) 242

Architectural Studies (ARST) 243

Architectural Studies (BS) 39

Architectural Studies (BS) & Architecture (MArch) 4+2 40

Architectural Studies (BS) & Historic Preservation (MS), Accelerated 4+1 40

Architectural Studies (BS) & Interior Architecture (MS) 4+1 41

Architecture & Design Research (ADR) 406

Architecture and Design Research (MS) 45

Architecture and Design Research (PhD) 46

Architecture (BArch) 41

Architecture (BArch) & Construction Management (MS) 5+1 42

Architecture (BArch) & Historic Preservation (MS) Accelerated 5+1 42

Architecture (BArch) & Interior Architecture (MS), 4+1 43

Architecture (BArch) & Real Estate Development (MS) 5+1 43

Architecture (BArch) & Urban Design (MS) 43

Architecture (BS) & Sustainable Design (MS) Accelerated 5+1 44

Architecture Design (ARDS) 245

Architecture Foundations (ARFD) 246

Architecture History and Theory Minor 574

Architecture (MArch) 44

Architecture Studies (BS) & Real Estate Development (MS), Accelerated 4+1 47

Area Studies (ASTU) 247

Art & Science of Healthcare (ASH) 247

Art (ART) 247

Art History (ARTH) 247

Art Therapy Advanced Studies (Graduate Certificate) 66

Arts & Culture (ARCU) 248

Arts (Online) (ARTX) 248

Athletic Admin Certificate (CAAC) 248

Athletic Training (ATP) 407

Athletic Training (MS) 180

B

Basic Medical Science (BMS) 410

Basic Textiles (CBST) 248

Behavior Health (Online) (BHTX) 248

Behavioral & Health Services (BS) 67

Behavioral Health (BHLT) 248

Behavioral Health Services (BHS) 249

Behavioral Health Services ONL (BHSX) 250

Biochemistry & Mol Biol-PhD MS (BI) 410

Biochemistry (BIOC) 551

Biochemistry (BS) 131

Biochemistry, Structural, & Molecular Biology (PhD) 132

Biologics Process Engineering (PhD) 197

Biology (BIOL) 250

Biology (BIOL) 411

Biology (BS) 132

Biology (Online) (BIOX) 258

Biology (P4) (BIO) 259

Biology/Chemistry (BCHM) 259

| | | | |
|--|-----|--|-----|
| Biomedical Sciences (MS) | 133 | Cell Biology (CB) | 414 |
| Biopharmaceutical Process Development (Graduate Certificate) | 198 | Certificate Programs | 27 |
| Biopharmaceutical Process Engineering (MS) | 198 | Chemistry (BS) | 135 |
| Bioprocessing (BP) | 260 | Chemistry (CHEM) | 264 |
| Bioprocessing (BP) | 411 | Chemistry (CHEM) | 415 |
| Biopsychology (BS) | 125 | Chemistry (Online) (CHMX) | 268 |
| Biotechnology (BS/MS) | 67 | Chemistry (P4) (CHE) | 268 |
| Biotechnology (BS) | 69 | Chronic Care Management (CCM) | 415 |
| Biotechnology (BT) | 261 | Clinical Chemistry (Graduate Certificate) | 72 |
| Biotechnology (BT) | 412 | Clinical Hematology (Graduate Certificate) | 72 |
| Biotechnology (MS) | 70 | Clinical Microbiology (Graduate Certificate) | 73 |
| Brand Management (Graduate Certificate) | 201 | Clinical Research & Trials: Implications (Graduate Certificate) | 136 |
| Brand Management (Graduate Certificate) | 217 | Clinical Research (CR) | 415 |
| Building Construction Studies (BCS) | 262 | Clinical Research (MS) | 136 |
| Building Technology Minor | 574 | Clinical Research: Operations (Graduate Certificate) | 137 |
| Business & Organizational Continuity (Graduate Certificate) | 98 | Coaching In Context (Advanced-Practice Certificate) | 181 |
| Business (BUS) | 262 | College of Architecture & The Built Environment (CABE) | 38 |
| Business Law (BLAW) | 263 | College of Health Professions (JCHP) | 65 |
| Business Law (Online) (BLWX) | 263 | College of Humanities & Sciences (JCHS) | 122 |
| Business Management (BS) | 201 | College of Life Sciences (JCLS) | 130 |
| Business Minor | 575 | College of Nursing (JCN) | 146 |
| Business of Healthcare Minor | 575 | College of Pharmacy (JCP) | 155 |
| Business (Online) (BUSX) | 263 | College of Population Health (JCPH) | 158 |
| C | | College of Rehabilitation Sciences (JCRS) | 180 |
| CAD (Computer Aided Design) (CAD) | 263 | College Studies (CLST) | 268 |
| CAD Foundation (CADF) | 413 | Colleges & Schools | 38 |
| Campus Locations | 14 | Commitment to Diversity & Equity | 12 |
| Cannabinoid Chem & Tox (CCT) | 413 | Communication & Media Studies (BS) | 126 |
| Cannabinoid Pharmacology (CPY) | 413 | Communication Minor | 575 |
| Cannabis & Society (CSO) | 413 | Communication (Online) (COMX) | 268 |
| Cannabis Business (CBU) | 413 | Communications & Media Studies (COMS) | 269 |
| Cannabis Business (Graduate Certificate) | 98 | Communications (COMM) | 271 |
| Cannabis Medicine (CMD) | 414 | Communications (COMM) | 416 |
| Cannabis Medicine (Graduate Certificate) | 98 | Community & Trauma Counseling (CTC) | 272 |
| Cannabis Research (CRS) | 414 | Community & Trauma Counseling (CTC) | 416 |
| Cannabis Science (CSC) | 414 | Community & Trauma Counseling (MS) | 73 |
| Cannabis Science (Graduate Certificate) | 98 | Community & Trauma Counseling: Art Therapy Concentration (MS) ... | 74 |
| Cardiovascular Perfusion (MS) | 99 | Community & Trauma Counseling: Child Trauma & Play Therapy Concentration (MS) | 75 |
| Cardiovascular Perfusion Post-Professional (MS) | 99 | Community & Trauma Counseling: Trauma, Addiction & Recovery Concentration (MS) | 76 |
| Cell & Developmental Biology (MS) | 134 | Computation (COMP) | 272 |
| Cell and Tissue Engineering (TE) | 414 | Computational Design Minor | 575 |
| Cell Biology & Regenerative Medicine (PhD) | 134 | | |

| | | | |
|---|-----|---|-----|
| Computed Tomography (Undergraduate Certificate) | 76 | DEC Methods (DECM) | 282 |
| Computer (Online) (CISX) | 272 | DEC Process (DECP) | 282 |
| Computer Studies (CMST) | 273 | DEC Systems (DECS) | 282 |
| Construction Management (BS) | 48 | Dental Hygiene (DH) | 282 |
| Construction Management (CMGT) | 273 | Dermatology (DERM) | 552 |
| Construction Management (CMGT) | 423 | Design, Engr. & Commerce (DEC) | 283 |
| Construction Management (Graduate Certificate) | 49 | Design Foundations (DSGF) | 282 |
| Construction Management Minor | 575 | Design of Living Buildings (Graduate Certificate) | 51 |
| Construction Management (MS) | 50 | Design of Resilient Communities (Graduate Certificate) | 52 |
| Construction Mgt. (MS) & Real Estate Development (MS) 1+1 | 50 | Developmental Biology (DB) | 426 |
| Construction Mgt. (MS) & Sustainable Design (MS) , 1+1 | 51 | Diag Imag Computed Tomography (DIC) | 283 |
| Consulting (Graduate Certificate) | 201 | Diag Imag Magnetic Resonance (DIM) | 283 |
| Cont & Prof Studies (CPS) | 275 | Diag Imag Nuclear Medicine (DIN) | 284 |
| Cont & Prof Studies (Online) (CPSX) | 275 | Diagnostic Imaging Adv Plc (DIA) | 285 |
| Cont. Studies Seminar (Online) (CSSX) | 276 | Diagnostic Imaging Cardiovasc (DIV) | 285 |
| Contemporary Global Issues (CGIS) | 276 | Diagnostic Imaging (DI) | 284 |
| Continuing & Professional Studies (CPS) | 194 | Diagnostic Imaging Med Sonog (DIS) | 286 |
| Continuing & Professional Studies Programs | 30 | Diagnostic Imaging Radiography (DIR) | 287 |
| Continuing Studies Seminar (CSSE) | 276 | Digital Design (DIGD) | 288 |
| Conversational Medical Chinese (CHI) | 277 | Digital Design Media (CIDD) | 290 |
| Couple & Family Therapy (MFT) | 76 | Digital Health (DIGH) | 427 |
| Couple and Family Therapy (CFTP) | 425 | Directed Learning (DRLN) | 290 |
| Course Descriptions | 234 | Disaster Medicine Management (DMM) | 428 |
| Creativity & Ldshp Core (ONL) (CLCX) | 277 | Diversity (DIVR) | 430 |
| Creativity & Leadership Core (CLC) | 277 | Diversity, Equity and Inclusion for Healthcare Leaders (Graduate Certificate) | 202 |
| Criminal Justice (CRJ) | 278 | Diversity Studies Minor | 576 |
| Criminal Justice (Online) (CRJX) | 278 | Doctor Strategic Leadership (DSL) | 430 |
| Crisis and Emergency Management (Executive MS) | 77 | Drawing (DRAW) | 290 |
| Custom Minor | 576 | E | |
| Cytogenetic Technology (CG) | 278 | Economics (ECON) | 290 |
| Cytogenetic Technology (CTG) | 279 | Economics (Online) (ECNX) | 291 |
| Cytotechnology & Cell Sciences (BS) | 77 | Education (EDUC) | 291 |
| Cytotechnology & Cell Sciences (BS/MS) | 78 | Effective Organizational Communications (Graduate Certificate) | 202 |
| Cytotechnology & Cell Sciences (MS) | 78 | Electives (ELEC) | 291 |
| Cytotechnology (CT) | 279 | Emergency & Disaster Management (Graduate Certificate) | 80 |
| Cytotechnology (CT) | 426 | Emergency & Disaster Management (MS) | 80 |
| Cytotechnology Post Certificat (CTP) | 281 | Emergency & Disaster Mgmt (EDM) | 432 |
| D | | Emergency and Disaster Management (MS) & Public Health (MPH) | 161 |
| Debating Global Issues (DBTG) | 281 | Emergency and Disaster Management (MS) & Public Health (MPH) | 162 |
| Debating US Issues (DBTU) | 281 | Emergency Medical Services (EMS) | 293 |
| DEC Frameworks (DECF) | 281 | Emergency Medicine (EMRG) | 552 |
| DEC Generic Courses (DECG) | 281 | | |

| | |
|--|-----|
| Emergency Nurse Practitioner (Post-Graduate Certificate) | 147 |
| Emerging Leaders in Autism Practice & Research (Advanced-Practice Certificate) | 182 |
| Engineering (BSE) | 217 |
| Engineering (ENGR) | 293 |
| Engineering (ENGR) | 435 |
| Engineering: Textile Concentration (MS) | 218 |
| English as Second Language (ESL) | 297 |
| English (ENGL) | 296 |
| English (Online) (ENGX) | 296 |
| Entrepreneurship Minor | 576 |
| Environmental Studies & Sustainability Minor | 577 |
| Ethics (ETHC) | 297 |
| Executive Leadership (DNP) | 147 |
| Exercise Science (BS) | 182 |
| Exercise Science (BS) & Athletic Training (MSAT) | 183 |
| Exercise Science (BS) & Occupational Therapy (OTD) | 184 |
| Exercise Science (BS) & Physical Therapy (DPT) | 185 |
| Exercise Science (EXSC) | 297 |
| Exercise Science Minor | 577 |
| F | |
| Family Medicine (FMED) | 553 |
| Fashion Design (BS) | 219 |
| Fashion Design (FASD) | 300 |
| Fashion Design Management (FDM) | 440 |
| Fashion Drawing (FASR) | 303 |
| Fashion Management (FASM) | 303 |
| Fashion Merchandising & Management (BS) | 203 |
| Fashion Merchandising and Management (MS) | 204 |
| Fashion Merchandising and Management Minor | 578 |
| Finance (BS) | 204 |
| Finance (FIN) | 305 |
| Finance Minor | 578 |
| Finance (Online) (FINX) | 306 |
| Financial Aid | 19 |
| First Year Seminar (FYS) | 306 |
| Forensic Biology (FB) | 441 |
| Forensic Biology (MS) | 137 |
| Forensic Toxicology (FT) | 442 |
| Forensic Toxicology (MS) | 138 |
| French (FREN) | 306 |
| Fundamentals of Leadership and Organizational Development (Graduate Certificate) | 205 |

G

| | |
|--|-----|
| Gender & Health Studies Minor | 578 |
| General Studies (GNST) | 307 |
| Genetics (GE) | 307 |
| Genetics (GE) | 443 |
| Genetics, Genomics & Cancer Biology (PhD) | 138 |
| Genetics Minor | 578 |
| Geodesign (GEOD) | 443 |
| Geographic Information Systems (Graduate Certificate) | 52 |
| Geographic Information Systems Minor | 579 |
| Geospatial Technology for Geodesign (Graduate Certificate) | 52 |
| German (GER) | 307 |
| Global Citizenship (GCIT) | 307 |
| Global Diversity (GDIV) | 309 |
| Global Fashion Enter. Foundatn (GFEF) | 445 |
| Global Fashion Enterprise (GFE) | 445 |
| Global Portfolio (GLOB) | 310 |
| Global Studies Minor | 579 |
| Global Textile Design (MS/MSc) | 220 |
| Graduate | 403 |
| Graduate Center (GC) | 447 |
| Graduate Center (GC) | 555 |
| Graduate Concentrations | 53 |
| Graduate Internship (GRIN) | 451 |
| Graduate Programs | 31 |
| Graphic Design (GRPH) | 310 |
| Graphic Design Minor (Animation & Digital Students) | 579 |
| Graphic Design Minor (Design Majors) | 580 |
| Graphic Design Minor (Non-Design Students) | 580 |
| Green Building Operations (Graduate Certificate) | 54 |
| Green Home Basics (CGHB) | 312 |

H

| | |
|---|-----|
| Hand & Upper Limb Rehabilitation (Advanced-Practice Certificate) | 187 |
| Health Administration (HLAD) | 312 |
| Health Administration (HLAD) | 451 |
| Health & Human Services (AS) | 81 |
| Health & Human Services: Radiologic Technology (AS) | 100 |
| Health Care Administration (HCA) | 312 |
| Health Care Administration ONL (HCAX) | 313 |
| Health Care Education (MSED) | 451 |
| Health Communication Design (HCMD) | 451 |
| Health Communication Design (MS) | 220 |

| | | | |
|---|-----|---|-----|
| Health Data Science (Graduate Certificate) | 162 | Health Studies (Online) (HSTX) | 318 |
| Health Data Science (HDS) | 451 | Healthcare Information Systems (Undergraduate Certificate) | 96 |
| Health Data Science (MS) | 163 | Healthcare Leadership (Graduate Certificate) | 205 |
| Health (HLTH) | 312 | Healthcare Management Info Sys (HMIS) | 318 |
| Health Insurance Management (BS) | 81 | Healthcare Quality & Safety (Advanced Practice Certificate) | 166 |
| Health Policy (Graduate Certificate) | 164 | Healthcare Quality & Safety (Graduate Certificate) | 166 |
| Health Policy (JCPH) (HPL) | 451 | Healthcare Quality & Safety (HQS) | 319 |
| Health Policy (MD) (HPOL) | 313 | Healthcare Quality & Safety (HQS) | 453 |
| Health Policy (MD) (HPOL) | 555 | Healthcare Quality & Safety (MS) | 167 |
| Health Policy (MS) | 164 | Historic Preservation (Graduate Certificate) | 55 |
| Health Professions Education (MS) | 100 | Historic Preservation (MHP) | 454 |
| Health Professions Pathways (Accelerated Pathway) | 81 | Historic Preservation Minor | 580 |
| Health Professions Studies (HPS) | 452 | Historic Preservation (MS) | 55 |
| Health Professions Teaching and Learning (Graduate Certificate) | 101 | History (HIST) | 319 |
| Health Sci Pop Health (JCPH) (DHS) | 453 | History (Online) (HISX) | 319 |
| Health Sciences (BS) | 81 | Home | 11 |
| Health Sciences (BS) | 82 | Honors (HONR) | 319 |
| Health Sciences (BS) & Athletic Training (MS) | 82 | Honors Institute | 23 |
| Health Sciences (BS) & Community & Trauma Counseling (MS) | 83 | Human Clinical Investigation: Theory (Graduate Certificate) | 139 |
| Health Sciences (BS) & Community and Trauma Counseling (MS) | 84 | Human Genetics & Genetic Counseling (MS) | 140 |
| Health Sciences (BS) & Nutrition & Dietetic Practice (MS) | 85 | Human Genetics (HG) | 456 |
| Health Sciences (BS) & Occupational Therapy (OTD) | 86 | Human Resource Leadership (Graduate Certificate) | 206 |
| Health Sciences (BS) & Occupational Therapy (OTD) | 87 | Human Resource Management (BS) | 206 |
| Health Sciences (BS) & Physician Assistant (PA) | 88 | Human Resources (HRM) | 320 |
| Health Sciences (DHSc) | 89 | Human Resources (Online) (HRMX) | 321 |
| Health Sciences (HSC) | 313 | Humanities (HUMN) | 322 |
| Health Sciences (JCHP) (HSCI) | 313 | Humanities (HUMN) | 555 |
| Health Sciences (JCHP) (HSCI) | 453 | Humanities (Online) (HUMX) | 323 |
| Health Sciences (Online) (HSCX) | 316 | | |
| Health Sciences: Pre-Medical Imaging/Radiation Sciences (BS) | 90 | IMBA Online Program Foundation (IMFX) | 457 |
| Health Sciences: Pre-Medical Lab Sci/Biotechnology (BS) | 91 | IMBA Program Foundation Course (IMBF) | 458 |
| Health Sciences: Pre-Nursing (BS) | 92 | Immunohematology (Graduate Certificate) | 97 |
| Health Sciences: Pre-Pharmacy (BS) | 92 | Immunology & Microbial Patho (IMP) | 458 |
| Health Sciences: Pre-Physician Assistant (BS) | 94 | Immunology & Microbial Pathogenesis (PhD) | 141 |
| Health Sciences: Pre-Respiratory Therapy (BS) | 95 | Immunology (IM) | 459 |
| Health Services (HLSV) | 316 | Industrial /Interactive Dsgn Foundation (IDF) | 460 |
| Health Services Management (BS) | 95 | Industrial Design (BS) | 221 |
| Health Services Management (HSM) | 316 | Industrial Design (INDD) | 323 |
| Health Services Mgmt (Online) (HSMX) | 317 | Industrial Design (INDD) | 461 |
| Health Services (Online) (HLSX) | 316 | Industrial Design (MS) | 222 |
| Health Studies (BS) | 96 | Industrial Engineering (IENG) | 326 |
| Health Studies (HST) | 318 | Infectious Disease Control (Graduate Certificate) | 141 |

| | |
|---|-----|
| Information Systems (INFO) | 327 |
| Information Technology (BS) | 207 |
| Information Technology (IT) | 327 |
| Information Technology-Online (ITX) | 329 |
| Innovator MBA (IMBA) | 462 |
| Innovator MBA Online (IMBX) | 466 |
| Institute of Emerging Health Professions | 97 |
| Integrative Health Education & Leadership (Advanced-Practice Certificate) | 101 |
| Integrative Health Education (IHE) | 470 |
| Integrative Health Sciences (MS) | 101 |
| Integrative Medicine (INT) | 555 |
| Integrative Nutrition (Advanced-Practice Certificate) | 102 |
| Integrative Nutrition (IN) | 470 |
| Integrative Physiology (PhD) | 142 |
| Integrative Seminar (ISEM) | 330 |
| Interactive Digital Design (IDD) | 470 |
| Interdepartmental (MD) (IDPT) | 333 |
| Interdepartmental (MD) (IDPT) | 472 |
| Interdepartmental (MD) (IDPT) | 555 |
| Interdisciplinary (IDSC) | 333 |
| Interdisciplinary (IDSC) | 472 |
| Interdisciplinary Studies (BS) | 127 |
| Interdisciplinary Studies (INDS) | 334 |
| Interior Architecture (IARC) | 472 |
| Interior Architecture (MS) | 56 |
| Interior Architecture Prep (IARP) | 474 |
| Interior Decorating (CIND) | 334 |
| Interior Design (BS) | 57 |
| Interior Design (BS) & Architecture (MArch) Accelerated, 4+2 | 58 |
| Interior Design (BS) & Historic Preservation (MS) 4+1 | 59 |
| Interior Design (BS) & Real Estate Development (MS) 4+1 | 59 |
| Interior Design (BS) & Sustainable Design (MS), Accelerated 4+1 | 59 |
| Interior Design (INTD) | 334 |
| Interior Design Minor | 581 |
| International Business (BS) | 208 |
| International Business Minor | 581 |
| International Fashion Design Management (MS) | 222 |
| Internship | 24 |
| Internship (INTN) | 337 |
| Interprofessional Education (IPE) | 475 |
| Intl Textual Analysis (TXIS) | 338 |
| Italian (ITAL) | 338 |

J

| | |
|---|-----|
| Japanese (JAPN) | 338 |
| Jefferson Institute for Bioprocessing | 196 |
| Jefferson Interprof. Education (CIPE) | 475 |
| JeffMD (JMD) | 475 |
| JeffMD (JMD) | 557 |
| Jr Sem (Integrative Prof Sem) (JINT) | 339 |
| Jr. Sem. Liberal Arts (JSLA) | 339 |

K

| | |
|---|-----|
| Kanbar College of Design, Engineering & Commerce (KANBAR) | 195 |
| Knitting (KNIT) | 340 |

L

| | |
|--|-----|
| Laboratory Sciences (LS) | 341 |
| Laboratory Sciences (LS) | 475 |
| Landscape Architecture (BLA) | 59 |
| Landscape Architecture (BLA) & Sustainable Design (MS) Accelerated 4 + 1 | 60 |
| Landscape Architecture Minor | 581 |
| Landscape Design Minor | 582 |
| Landscape Planning Minor | 582 |
| Language (LANG) | 342 |
| Law & Society (BS) | 128 |
| Law and Society Minor | 582 |
| Law Enforcement (LAWE) | 344 |
| Law Enforcement (Online) (LAWX) | 344 |
| Law (JD) & Public Health (MPH) | 169 |
| Law (LAW) | 342 |
| Leadership & Homeland Security (LHS) | 344 |
| Leadership (LDSP) | 345 |
| Leadership (LDSP) | 477 |
| Leadership (Online) (LDSX) | 346 |
| Legal Studies (Online) (LCSX) | 346 |
| Life Care Planning (Graduate Certificate) | 187 |
| Literature (LIT) | 346 |

M

| | |
|--|-----|
| Management (BS) | 208 |
| Management (MGMT) | 346 |
| Management (MGMT) | 478 |
| Management Minor | 583 |
| Management Of Info Systems (MIS) | 351 |
| Management (Online) (MGTX) | 350 |
| Marketing (BS) | 209 |

| | | | |
|---|-----|--|-----|
| Marketing Minor | 583 | Midwifery (MIDW) | 484 |
| Marketing (MKTG) | 351 | Midwifery (MS) | 114 |
| Marketing (Online) (MKTX) | 353 | Midwifery (MS) Completion Program | 115 |
| Math (Online) (MATX) | 353 | Midwifery (MS/DM) | 115 |
| Mathematics (MATH) | 353 | Midwifery (Re-entry to Practice Process) | 116 |
| MBA (Business Administration) | 210 | Mind-Body Medicine (Advanced-Practice Certificate) | 104 |
| Mechanical Engineering (BS) | 223 | Mind-Body Medicine (MBM) | 490 |
| Mechanical Engineering (MENG) | 355 | Minor Course (MINR) | 362 |
| Medical | 550 | Minors | 573 |
| Medical Assistant (MA) | 356 | Molecular Biology (Graduate Certificate) | 116 |
| Medical Cannabis Science and Business (MS) | 102 | Molecular Biology (MB) | 362 |
| Medical Coding & Data Quality (Undergraduate Certificate) | 103 | Multimedia & Visualization Minor | 584 |
| Medical Coding (CODP) | 356 | Music (MUSC) | 362 |
| Medical Imaging & Radiation Sciences (BS) | 104 | Music (Online) (MUSX) | 362 |
| Medical Imaging & Radiation Sciences (MS) | 107 | N | |
| Medical Lab Science (Online) (MLSO) | 357 | National Student Exchange (NSE) | 362 |
| Medical Lab Science (Online) (MLSO) | 478 | National Student Exchange (NSE) | 490 |
| Medical Laboratory Leadership (MS) | 108 | Neurology (NEUR) | 562 |
| Medical Laboratory Science (MLT to MLS Pathway) | 109 | Neuroscience (NS) | 362 |
| Medical Laboratory Science (BS) | 110 | Neuroscience (NS) | 490 |
| Medical Laboratory Science (MLS) | 358 | Neuroscience (PhD) | 143 |
| Medical Laboratory Science (MLS) | 480 | Neuroscience: Advanced Concepts for Evidence Based Practice (Graduate Certificate) | 187 |
| Medical Laboratory Sciences (BS/MS) | 110 | Neurosurgery (NSRG) | 563 |
| Medical Laboratory Sciences (MS) | 112 | Nurse Anesthesia (DNP) | 148 |
| Medical Physics (MEDP) | 481 | Nurse Practitioners(Post-Graduate Certificate) | 148 |
| Medical Practice Management (Undergraduate Certificate) | 103 | Nursing (BSN) | 148 |
| Medical Spanish Minor | 583 | Nursing (DNP) | 150 |
| Medical Technology Adv Plc (MTAP) | 362 | Nursing Education: Academic Nursing (Advanced Certificate) | 154 |
| Medical Technology (MT) | 360 | Nursing (MSN) | 151 |
| Medical Technology (MT) | 482 | Nursing (NU) | 363 |
| Medicine (MD) | 231 | Nursing (NU) | 491 |
| Medicine (MD) & Public Health (MPH) & (DO/MPH) | 169 | Nursing (PhD) | 153 |
| Medicine (MED) | 482 | Nursing (PhD) & Public Health (MPH) | 170 |
| Medicine (MED) | 561 | Nutrition & Dietetic Practice (MS) | 116 |
| Mgmt of Info Systems (Online) (MISX) | 362 | Nutrition (NUTR) | 365 |
| Microbiology & Immunology (MS) | 143 | Nutrition (NUTR) | 496 |
| Microbiology (JCLS) (MI) | 482 | Nutrition (Online) (NUTX) | 365 |
| Microbiology (MD) (MICR) | 484 | O | |
| Microbiology (MD) (MICR) | 562 | Obstetrics-Gynecology (OBGY) | 563 |
| Midwifery (Advanced-Practice Certificate) | 113 | Occupational Therapy (PPOTD) | 188 |
| Midwifery (DM) | 113 | Occupational Therapy - Center City (OTD) | 189 |
| Midwifery (MIDW) | 362 | | |

| | | | |
|---|-----|---|-----|
| Occupational Therapy (ASOT) | 188 | Philosophy (PHIL) | 368 |
| Occupational Therapy Assistant (OTA) | 366 | Photography Minor | 584 |
| Occupational Therapy Certifica (OTC) | 367 | Photography (POTO) | 369 |
| Occupational Therapy (GR) (OCC) | 496 | Physical Therapy (DPT) | 192 |
| Occupational Therapy (OT) | 365 | Physical Therapy (PT) | 370 |
| Occupational Therapy (OT) | 500 | Physical Therapy (PT) | 513 |
| Occupational Therapy- Center City (MSOT) | 190 | Physician Assistant (PAST) | 371 |
| Occupational Therapy- East Falls (BS/MSOT) | 190 | Physician Assistant (PAST) | 517 |
| Occupational Therapy-East Falls (MSOT) | 191 | Physician Assistant Studies – East Falls (MS) | 119 |
| Operational Excellence (Advanced-Practice Certificate) | 170 | Physician Assistant Studies - Center City (MS) | 118 |
| Operational Excellence (Graduate Certificate) | 171 | Physician Assistant Studies (MS) & Health Sciences (DHSc) | 117 |
| Operational Excellence (MS) | 171 | Physics (Online) (PHYX) | 372 |
| Operational Excellence (OPX) | 368 | Physics (P4) (PHY) | 372 |
| Operational Excellence (OPX) | 505 | Physics (PHYC) | 372 |
| Ophthalmology (OPHT) | 564 | Physiology (JCLS) (PS) | 524 |
| Oral & Maxillofacial Surgery (OMFS) | 564 | Physiology (MD) (PHYS) | 373 |
| Organizational Change Management (Graduate Certificate) | 212 | Physiology (MD) (PHYS) | 567 |
| Organizational Leadership (BS) | 212 | Placement Math (PLMA) | 373 |
| Organizational Leadership (BS) | 213 | Placement Writing (PLWR) | 373 |
| Organizational Leadership (MS) | 213 | Political Science (POSC) | 373 |
| Orthopedic Surgery (ORTH) | 564 | Population Health (Advanced -Practice Certificate) | 172 |
| Ota Fieldwork Workshop (COTF) | 368 | Population Health (DHSc) | 173 |
| Otolaryngology (OTOL) | 565 | Population Health (Graduate Certificate) | 173 |
| P | | Population Health Intelligence (PHI) | 526 |
| PA Studies Foundation (PASF) | 506 | Population Health (MS) | 174 |
| Pathology & Cell Biol (JCLS) (PA) | 506 | Population Health Pharmacy (Graduate Certificate) | 157 |
| Pathology (MD) (PATH) | 565 | Population Health Pharmacy (MS) | 158 |
| Patient-Centered Research (Graduate Certificate) | 144 | Population Health Pharmacy (PHP) | 526 |
| Pediatrics (PED) | 566 | Population Health (POP) | 525 |
| Perfusion (PER) | 507 | Population Health Science (PhD) | 176 |
| Pharmaceutical Science (PharmD) & Public Health (MPH) | 172 | Population Health Sciences (PHS) | 527 |
| Pharmaceutical Sciences (MS) | 155 | Pre-MBA Minor (For Business Students) | 584 |
| Pharmaceutical Sciences (PSCI) | 507 | Pre-MBA Minor (Non-Business) | 584 |
| Pharmacology (JCLS) (PR) | 508 | Pre-Medical Studies (BS) | 145 |
| Pharmacology (MD) (PHAR) | 368 | Print Design (PRNT) | 373 |
| Pharmacology (MD) (PHAR) | 509 | Prior Learning Assessment (PLA) | 374 |
| Pharmacology (MD) (PHAR) | 567 | Professional and Strategic Writing | 585 |
| Pharmacology (MS) | 144 | Professional Coursework (PROF) | 374 |
| Pharmacy (JCP) (PHRM) | 509 | Psychiatry & Human Behavior (PSYH) | 568 |
| Pharmacy (PharmD) | 156 | Psychology (BS) | 129 |
| Pharmacy (PharmD) & Public Health (MPH) | 157 | Psychology (BS) & Community & Trauma Counseling (MS) | 120 |
| Philosophy (Online) (PHLX) | 368 | Psychology Minor | 585 |

Psychology (Online) (PSYX) 374
 Psychology (PSYC) 374
 Psychology (PSYC) 527
 Public Health 585
 Public Health (Graduate Certificate) 177
 Public Health (JCLS) (PH) 527
 Public Health (JCPH) (PBH) 528
 Public Health (MPH) 178
 Public Health (MPH) 179
 Public Health (PUBH) 379

R

Rad Sci Cardiac Sonography (RSCS) 379
 Rad Sci Cardiac Sonography (RSCS) 530
 Rad Sci Computed Tomography (RSC) 380
 Rad Sci Computed Tomography (RSC) 530
 Rad Sci CT Certificate (RSCC) 380
 Rad Sci CT Certificate (RSCC) 531
 Rad Sci General Sonography (RSS) 381
 Rad Sci Inv Cardiovasc Tech (RSI) 382
 Rad Sci Inv Cardiovasc Tech (RSI) 531
 Rad Sci Magnetic Resonance (RSM) 382
 Rad Sci Medical Dosimetry (RSD) 383
 Rad Sci Medical Dosimetry (RSD) 532
 Rad Sci Nuclear Medicine (RSN) 384
 Rad Sci Nuclear Medicine (RSN) 532
 Rad Sci PET/CT (RSPC) 385
 Rad Sci PET/CT (RSPC) 532
 Rad Sci Radiation Therapy (RST) 385
 Rad Sci Radiography (RSR) 386
 Rad Sci Vascular Technology (RSV) 387
 Rad Sci Vascular Technology (RSV) 532
 Radiation,Oncology,Nuclear Med (RONM) 569
 Radiologic Science (RS) 389
 Radiologic Science (RS) 532
 Radiology (RAD) 569
 Real Estate Development (Graduate Certificate) 61
 Real Estate Development Minor 585
 Real Estate Development (MS) 61
 Real Estate (MRE) 533
 Reg Dietitian Nutritionist (RDN) 535
 Rehabilitation (RHAB) 570
 Rehabilitation Sciences (JCRS) 536

Respiratory Therapy (BS) 121
 Respiratory Therapy (RESP) 389

S

School of Business 199
 School of Design & Engineering 216
 Science (SCI) 390
 SDE Interdisciplinary Courses (SDE) 392
 SDE Interdisciplinary Courses (SDE) 536
 Search Courses 233
 Service (SERV) 393
 Sidney Kimmel Medical College (SKMC) 230
 SKMC - Away Rotation (AWAY) 570
 SKMC LIC (LIC) 570
 Smart Cities & Urban Analytics (Graduate Certificate) 62
 Social Justice (SCJU) 537
 Social Sciences (SOSC) 393
 Social Work (MSS) & Public Health (MPH) 179
 Sociology (Online) (SOCX) 393
 Sociology (SOC) 393
 Spanish Minor 586
 Spanish (SPAN) 394
 Special Topics in Design (DSGN) 394
 Special Topics in Design (DSGN) 537
 Speech-Language Pathology (MS-SLP) 193
 Speech-Language Pathology (SLP) 537
 Sports Management Minor 586
 Stat Analysis Software (CSAS) 538
 Statistics (Online) (STAX) 394
 Statistics (STAT) 394
 Strategic Leadership (DMgt) 214
 Student Support Offices & Contacts 24
 Surface Imaging (Advanced-Practice Certificate) 224
 Surface Imaging (MSSI) 539
 Surgery (SURG) 570
 Sustainability (SUST) 395
 Sustainable Design - in Partnership with Brick (MS) 63
 Sustainable Design Minor 586
 Sustainable Design (MS) 62
 Sustainable Design (SDN) 540
 Sustainable Leadership (Graduate Certificate) 64

T

Tax (TAX) 542

| | | | |
|--|-----|--|-----|
| Taxation (MS) | 215 | Visual Studies Design (VDES) | 400 |
| Teaching in the Digital Age (Advanced-Practice Certificate) | 193 | Visual Studies Drawing (VDRW) | 400 |
| Telehealth (TELH) | 397 | W | |
| Test Subject Title (TEST) | 397 | Weaving (WEAV) | 401 |
| Textile Chemistry (TEXC) | 400 | Web Design Minor (For Non-Visual Communication Students) | 587 |
| Textile Design (BS) | 224 | Web Design Minor (For Visual Studies Students) | 588 |
| Textile Design Minor | 586 | Welcome to Thomas Jefferson University | 12 |
| Textile Design (MS) | 225 | Writing (WRIT) | 401 |
| Textile Design (TXD) | 545 | | |
| Textile Design- Accelerated (BS/MS) | 226 | | |
| Textile Engineering & Sciences (PhD) | 226 | | |
| Textile Engineering (TENG) | 400 | | |
| Textile Foundation (TXF) | 547 | | |
| Textile Product Science (BS) | 227 | | |
| Textile Product Science Minor | 587 | | |
| Textile Technology (MS) | 228 | | |
| Textile (TEXT) | 397 | | |
| Textile (TEXT) | 543 | | |
| Textual Analysis (ITXA) | 400 | | |
| Title IX | 12 | | |
| Transformational Leadership (Graduate Certificate) | 215 | | |
| Transformative Systems Leadership (Advanced Certificate) | 154 | | |
| Transformative Systems Leadership (MSN) | 155 | | |
| Trauma, Addiction & Recovery Advanced Studies (Graduate Certificate) | 122 | | |
| Tuition & Fees | 17 | | |
| U | | | |
| Undergraduate | 234 | | |
| Undergraduate Degree Components | 21 | | |
| Undergraduate Programs | 35 | | |
| University Mission | 12 | | |
| University Structure & Leadership | 12 | | |
| Urban Design (GR) (MUD) | 548 | | |
| Urban Design Minor | 587 | | |
| Urban Design- Future Cities (MUD) (MS) | 64 | | |
| Urology (UROL) | 571 | | |
| User Experience & Interaction Design (MS) | 228 | | |
| V | | | |
| Vacation (VACA) | 572 | | |
| Veterans' Administration | 20 | | |
| Visual Communication Design (BS) | 229 | | |
| Visual Studies | 587 | | |