President’s Message

My Hope for You

If you’re a student using the print version of this catalog, the book you hold is quite valuable. Think of it as the user’s manual to your degree program.

Despite its plain appearance, the catalog contains the essence of IUP’s academic experience—an overview of what you’ll have to do to graduate, descriptions of the courses you’ll take and opportunities for intense study, some of the resources you can access to help you reach your goals, and the rules.

What it doesn’t tell you is how well prepared for life you’ll be when you graduate.

The professors who will teach your courses will push you to think about new things, to find answers, to solve problems, and to stretch your mind. I won’t try to fool you and say it will be easy. But you’ll find help—lots of it. Those same professors who will push you will also guide you.

The Writing Center, the University College, the Counseling Center and other centers on campus will help you when you have questions, when you aren’t certain, or when you are feeling stressed.

Everyone at IUP will be with you, every step of the way.

So, use this book for the tool that it is, but I urge you to recognize that your education isn’t just about a challenging academic experience. To truly grow into the world of work or graduate study, you need to take advantage of every opportunity at IUP, even if it’s not directly related to your academic progress. By enjoying cultural events or joining clubs and organizations or finding new ways to interact with new people, you’ll grow even more.

It’s the whole experience that will prepare you for life. That’s my hope for you.

Michael A. Driscoll
President
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### University Calendar

For the latest academic calendar information, please visit the website [www.iup.edu/academiccalendar](http://www.iup.edu/academiccalendar).

#### Fall Semester 2019
- Classes begin: August 26
- Labor Day break (no classes): September 2
- Thanksgiving Break: November 25-29
- Classes resume (8:00 a.m.): December 2
- Classes end (end of day): December 10–13
- Final exams: December 14
- Commencement: December 10–13

#### Winter Session 2019–20
- December 19 through January 10
  - (No classes December 25 and January 1)

#### Spring Semester 2020
- Classes begin: January 21
- Spring Break: March 9–13
- Classes resume (8:00 a.m.): March 16
- Classes end (end of day): May 4
- Final exams: May 5–8
- Commencement—Graduate: May 8
- Commencement—Undergraduate: May 9

#### Summer Sessions 2020
- Early Summer Session: May 11
- Summer Session 1: June 1
- Summer Session 2: July 6

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### Chancellor, Pennsylvania’s State System of Higher Education

Daniel Greenstein, Chancellor

### Council of Trustees, Indiana University of Pennsylvania

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- Glenn M. Cannon, Secretary
- Susan S. Delaney
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- Samuel H. Smith, Vice Chair; Chair, Audit and Compliance Committee
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- Pedro A. Rivera, Secretary of Education
- Brad Rose, Representative
- Senator Judith L. Schwank
- Meg Snead, Designee for Gov. Tom Wolf
- Neil R. Weaver, Vice Chair, University Success Committee
- Governor Tom Wolf
- Janet L. Yeomans
- Three Vacancies
Undergraduate Degrees Offered at IUP

Associate Degrees

— Baking and Pastry Arts, Associate in Applied Science *
— Culinary Arts, Associate in Applied Science
— General Studies, Associate of Arts
— Hospitality Management, Associate of Science

Bachelor of Arts

— Anthropology (Tracks available: Applied Anthropology, Archaeology, General Anthropology, Honors)
— Art/History Track
— Art/Studio
— Asian Studies (Honors Track available)
— Biology (Honors Track available)
— Computer Science
— Criminology (Pre-law Track available)
— Economics (Tracks available: Honors and Pre-law)
— English (Tracks available: Literature/Culture, Writing Studies, Honors, Pre-law)
— Geography (Tracks available: Environment/Energy, Geospatial Information Science and Technology, Human Geography, Honors)
— General Studies
— History (Honors Track available)
— Interdisciplinary Fine Arts/Dance Arts Track
— International Studies/Political Science
— Journalism and Public Relations
— Music
— Philosophy (Tracks available: Honors and Pre-law)
— Political Science (Homeland Security, Pre-law Tracks available)
— Psychology (Honors Track available)
— Religious Studies (Honors Track available)
— Sociology (Tracks available: General Sociology, Human Services, Sociology of Disability Services, Honors)
— Spanish (Honors Track available)
— Theater (Musical Theater Track available)

Bachelor of Science in Education*

*An honors track is available for all BSED degree programs.

— Art Education
— Biology Education
— Business Education
— Chemistry Education
— Early Childhood Education
— Early Childhood Education/Special Education (Urban Track available)
— Earth and Space Science Education
— English Education
— Family and Consumer Sciences Education K-12
— Health and Physical Education (Tracks available: K-12 Teacher Education, Community Health Education, Recreation and Leisure Studies)
— Mathematics Education
— Middle-Level Education 4-8 (Tracks available: English/Language Arts, Mathematics, Science, Social Studies)
— Music Education
— Physician Assistant
— Physics Education
— Social Science Education/Sociology
— Social Studies Education (Tracks available: Economics, Geography, History)
— Spanish Education K-12
— Special Education
— Vocational-Technical Education

Bachelor of Science

— Accounting
— Biochemistry
— Biology (Tracks available: Cell and Molecular Biology; Ecology, Conservation, and Environmental Biology; Environmental Health; Pre-medical; Pre-veterinary; Honors)
— Chemistry (Tracks available: Interdisciplinary Chemistry, Pre-medical, and Pre-pharmacy)
— Communications Media (Tracks Available: Media Marketing, Media Production, Media Studies)
— Computer Science (Tracks Available: Cyber Security, Languages and Systems, Software Engineering)
— Disability Services
— Environmental Engineering
— Fashion Merchandising
— Finance
— Geology (Tracks available: Geology, Energy Resources, Environmental)
— Hospitality Management
— Human Development and Family Science
— Human Resource Management
— Interior Design
— International Business
— Management (Tracks available: General Management, Energy Management, Entrepreneurship and Small Business Management, Supply Chain Management)
— Management Information Systems (Tracks available: Information Systems, Information Technology)
— Marketing
— Mathematics (Tracks available: Actuarial, Applied Mathematics)
— Medical Imaging (Diagnostic Medical Sonography/Ultrasound, Echocardiography, Nuclear Medical Technology)
— Medical Technology
— Natural Science (Tracks available: Pre-audiology, Pre-chiropractic, Pre-dentistry, Pre-optometry, Pre-pharmacy, Pre-physical Therapy, Pre-physician Assistant, Pre-podiatry)
— Nursing (Licensed Practical Nurse Track available)
— Nutrition (Tracks available: Culinary Dietetics, Dietetics, Nutrition)
— Physical Education and Sport (Programs available: Exercise Science, Pre-Athletic Training, Sport Administration)
— Physics (Tracks available: Applied Physics, Nanomanufacturing Technology, Pre-engineering)
— Public Health (Tracks available: Behavioral and Mental Health, Environmental and Occupational Health, Epidemiology and Biostatistics, Global and Rural Communities)
— Regional Planning (Tracks available: Community Planning and Development, Environmental Planning, Honors)
— Respiratory Care (Certified Respiratory Therapist Track available)
— Safety, Health, and Environmental Applied Sciences
— Speech-Language Pathology and Audiology

Bachelor of Fine Arts

— Music Performance
— Art Studio

* Pending Final Approval
# Undergraduate Minors and Certificates Offered at IUP

## Minors
- Accounting
- Anthropology
- Applied Statistics
- Art History
- Art Studio
- Asian Studies
- Biochemistry
- Biology
- Biomedical Science
- Business Administration
- Chemistry
- Child and Adult Advocacy Studies
- Child Development and Family Relations
- Communications Media
- Community Health
- Computer Science
- Criminology
- Cyber Security
- Dance
- Deaf Studies
- Economics
- Educational Psychology
- Educational Technology
- Elementary and Middle Level Mathematics
- English
- Entrepreneurship for Fine Arts
- Exercise Science
- Family and Consumer Science
- Finance
- Forensic Biosciences
- French
- Geography
- Geology
- German
- Global Health
- History

## Certificates—undergraduate
- American Language Institute
- Athletic Coaching
- Audio Production
- Behavior Analysis
- Cell and Molecular Biology
- Child and Adult Advocacy
- China Studies
- Cultural Competencies
- Digital History
- Foreign Language/Chinese
- Foreign Language/French
- Foreign Language/German
- Foreign Language/Japanese
- Foreign Language/Spanish
- Geospatial Intelligence
- Gerontology
- Japan Studies
- Living Learning/Global Scholarship
- Living Learning/Scientific Communication
- Middle Eastern Studies
- Military Geographic Competencies
- Non-Credit Certificate Programs
- Photography and Digital Imaging
- Popular Music
- Public History
- Shale, Gas, and Energy
- Unmanned Aerial Systems and Application
- Urban Education
- Homeland Security
- Hospitality Management
- Hotel and Lodge Management
- Human Services
- International Studies/Political Science
- Journalism and Public Relations
- Latin American Studies
- Lesbian, Gay, Bisexual, Transgender, and Queer Studies
- Management
- Management Information Systems
- Marketing
- Mathematics
- Military Leadership
- Music
- Nutrition
- Pan-African Studies
- Philosophy
- Physics
- Political Science
- Pre-Law
- Professional Teamwork and Leadership
- Psychological Science
- Psychology
- Regional Planning
- Religious Studies
- Restaurant and Food Service Management
- Safety, Health, and Environmental Applied Sciences
- Sociology
- Sociology of Disability Services
- Spanish
- Special Education
- Special Event/Tourism Management
- Sport Management
- Sustainability Studies
- Theatre
- Women’s and Gender Studies

## Certificates—clock hour
- Baking and Pastry
- Clinical Medical Assistant
- Criminal Justice Training
- Culinary Arts
- Paramedic
The University

A University Education

Through undergraduate and graduate programs, IUP serves students from across the nation and around the world by introducing them to and sustaining them in a culture of high aspiration and achievement so they may lead productive and meaningful lives. Singly and through collaboration within Pennsylvania’s State System of Higher Education, with other educational institutions, and with business, government, human services, and professional organizations, IUP contributes to the economic and cultural strength of the region, the commonwealth, and the nation through education, scholarship, and service.

Vision for IUP’s Future

Indiana University of Pennsylvania is a community where teaching, research, and service empower students to become innovative leaders while enhancing communities throughout the world. Remaining true to its traditions, IUP assesses society’s needs and opportunities and meets them.

Students are hardworking, ready to learn, and come from diverse cultures, places, and backgrounds. Energetic, dedicated, and diverse staff and faculty members welcome them to a personal, vibrant college home. Students participate in many intentional and interconnected learning experiences in their studies, in their lives, and in the world.

Professors are active scholars and teachers in their disciplines who work together to expand their impact. They engage students in carefully designed open-ended, hands-on experiences to reinforce and enrich what students learn in the classroom. Professors use technology to enhance student learning and augment the face-to-face and peer-learning experiences that are the foundation of excellent education.

Alumni say their student experience was the best preparation for work and life. They continue to find joy in the bonds they built as students and the new connections they make with faculty and staff members, students, and other alumni. They are proud, and they choose to invest in IUP’s future.

IUP Values

• Demonstrating an excellent return on educational investment
• Knowing students as individuals who work closely with faculty and staff members
• Responding to the needs of students and society with a range of innovative programs and scholarship
• Employing evidence in decision making and in demonstrating results
• Drawing on IUP’s tradition in Indiana and western Pennsylvania to serve students worldwide
• Enjoying historic, inspirational, and functional campuses and facilities
• Using technology to reach place-committed students and enhance learning for all
• Celebrating engaged, successful alumni

Mission Statement

IUP is a leading public, doctoral/research university, strongly committed to undergraduate and graduate instruction, scholarship, and public service.

IUP engages students as learners and leaders in an intellectually challenging, culturally enriched, and contemporarily diverse environment.

Inspired by a dedicated faculty and staff, students become productive national and world citizens who exceed expectations personally and professionally.

For more information about IUP’s core values and strategic goals, visit the website www.iup.edu/strategic-planning.

History of the University

IUP has witnessed a history rich in accomplishment. Since 1875, when it served only 225 students in a single building, it has experienced continuous growth, becoming one of Pennsylvania’s largest universities. The fall 2018 enrollment was 11,325, with students from 48 states/territories and more than 50 countries.

The first building, named John Sutton Hall in honor of the first president of the Board of Trustees, was opened for students on May 17, 1875.

In April 1920, control and ownership of the school passed to the Commonwealth of Pennsylvania. In May 1927, by authority of the General Assembly, the State Normal School became a college, with the right to grant degrees. The name was then changed to the State Teachers College at Indiana, Pennsylvania. In 1959, the legislature approved a change of name to Indiana State College; in the 1960s there followed a rapid growth in the liberal arts program. In December 1965, Indiana was redesignated Indiana University of Pennsylvania and given the authority to expand its curriculum and to grant degrees at the master’s level. In 1969, the first doctoral program was initiated.

Current academic offerings include more than 140 undergraduate programs with a variety of internship and study abroad programs, 57 master’s degree programs, and 14 doctoral programs. Unusual opportunities for research at all levels and the Cook Honors College provide special challenges for academic growth. The variety and quality of instruction are characteristic of a big university, yet at IUP, close, one-to-one-relationships develop within the teaching framework, and a strong sense of community prevails.

Points of Pride

There are many good reasons why IUP is consistently ranked among the best institutions in the region by a wide variety of sources, including the Princeton Review’s Best Colleges publications; Donald Asher’s Cool Colleges: For the Hyper-Intelligent, Self-Directed, Late Blooming, and Just Plain Different; Kiplinger’s Personal Finance Magazine, Arco’s Dollarwise Guide to American Colleges; Barron’s Best Buys in College Education; New York Times; Money magazine; and US News and World Report. Here are some of those reasons:

• **Breadth of high-quality programs:** Undergraduates can choose from more than 140 programs. IUP also offers more than 60 graduate programs, including 14 doctoral programs. Students can challenge themselves with honors programs in almost every major or attend the nationally renowned Cook Honors College.

• **Strong graduate programs:** Graduate students at IUP gain the advantages of a nationally recognized university known for its commitment to high-quality research. They work with distinguished faculty members who regularly secure prestigious research grants and make noteworthy contributions to their discipline’s body of knowledge.

• **Faculty:** IUP students enjoy an 17-to-1 student/faculty ratio. Nearly all classes are taught by fully qualified faculty scholars. Some faculty members have won Fulbright Teacher Exchange awards to study/research in other countries. Faculty research wins sponsorship by major institutions such as the National Science Foundation, NASA, Centers for Disease Control and Prevention, and US Department of Education.

• **Campus and location:** The main IUP campus is in the heart of Indiana County, close to recreation of all kinds and only an hour away from Pittsburgh. IUP’s location puts students in a safe, friendly, small-town environment within easy reach of the opportunities a big city offers.

• **Hands-on learning:** An IUP education is rigorous and research based. Every IUP program endeavors to prepare students for the real-world challenges they will face after graduation. Students engage in applied learning through laboratory work, internships, and exchange programs.

• **Transfer-friendly:** Students who want to transfer to IUP from another academic institution will find an admissions staff dedicated to their success.

• **Distance learning:** Undergraduate and graduate courses are available to students who may have work or family schedules that conflict with on-campus classes.

• **A diverse, vibrant, welcoming community:** IUP attracts and sponsors a wide variety of local, national, and international cultural events that make both the campus and the surrounding town a vibrant place for the arts as well as for intellectual pursuits. In addition, more than 250 student clubs and organizations thrive on campus, ensuring that the IUP
• experience is as much about shared activities and memories outside the classroom as it is about collaboration and dialogue within.

• Division II athletics: IUP competes in the Pennsylvania State Athletic Conference and is an NCAA Division II member. The university sponsors eight varsity sports for men and 11 for women, with scholarships available for all of them. IUP students also get involved in a variety of club and intramural sports.

• Excellent value: All of the above add up to one thing: value. That’s why IUP is nationally recognized for offering an education of real value. In addition to keeping tuition costs competitive, IUP disburses substantial financial aid in the form of scholarships, grants, work-study programs, and low-interest loans. In fact, about 82 percent of IUP undergraduate students receive financial assistance in one form or another.

University Governance

Indiana University of Pennsylvania is one of 14 members of the State System of Higher Education in Pennsylvania. Oversight of the System is vested in the Board of Governors, the members of which are appointed by the governor. Each university has its own Council of Trustees, responsible for financial oversight and ensuring compliance of university policies with state law. Responsibility for the day-to-day operations is entrusted to the university president, who is the chief executive officer.

Because of the complexity of the university, the president relies on the University Senate to develop and approve curricula and to advise the president on setting policies that affect and shape the working and learning environment at IUP. The University Senate is composed of faculty members, students, and administrators who are elected and appointed by their peers.

Many of the important policies governing the working and learning environment, such as the policy on sexual harassment and sexual violence, the academic integrity policy, and the policy on nondiscrimination, are given in this catalog and are also available at www.iup.edu. To ensure a nurturing environment where all faculty members, students, and administrators can work together in harmony, it is essential that all members of the university be familiar with these policies, as they set the expectations for civil behavior and academic conduct.

Accreditation

IUP is a state-owned institution for higher education and a member of Pennsylvania’s State System of Higher Education. It holds university-wide regional accreditation through the Middle States Commission on Higher Education, 3624 Market Street, Philadelphia, PA 19104, telephone: 267-284-5000, website: www.msche.org.

In addition, undergraduate programs at IUP have earned specialized accreditation from the following organizations:

• Accreditation Commission for Programs in Hospitality Administration
• Accreditation Council for Education in Nutrition and Dietetics
• American Association for Health Education
• American Council on the Teaching of Foreign Languages
• American Culinary Federation Educational Foundation
• American Psychological Association
• American Speech-Language-Hearing Association
• Applied and Natural Science Accreditation Commission of ABET
• Association to Advance Collegiate Schools of Business
• Association for Middle Level Education
• Commission on Accreditation of Allied Health Education and Programs
• Commission on Accreditation for Respiratory Care
• Commission on Accreditation of Athletic Training Education
• Commission on Collegiate Nursing Education
• Computing Accreditation Commission of ABET
• Council for the Accreditation of Educator Preparation
• Council for Exceptional Children
• Council for Accreditation of Counseling and Related Educational Programs
• Educational Leadership Constituent Council
• International Reading Association
• National Association for the Education of Young Children
• National Association for Sport and Physical Education
• National Association of Schools of Art and Design
• National Association of Schools of Music
• National Association of School Psychologists
• National Association of Teachers of English
• National Association of Schools of Theatre
• National Science Teachers Association
• National Council for Social Sciences
• National Council of Teachers of Mathematics
• Pennsylvania Department of Education-Vocational Division

See the website www.iup.edu/academicaffairs/resources for the most current listing.

Indiana, the County and the Town

Indiana County was formed by act of the state legislature in 1803 and was fully organized in 1806. George Clymer, of Philadelphia, a signer of the Declaration of Independence, owned more than 3,000 acres in the area and presented 250 acres to the new county for a county seat. The town of Indiana was officially founded in 1816.

The county’s first major industry was the manufacture of salt, which began in 1813 about two miles above the town of Saltsburg. As early as 1797, bituminous coal was dug from exposed outcroppings. Mining soon rivaled agriculture as the backbone of the county’s economy. Its influence gradually diminished, though, and today IUP is the county’s largest employer. Indiana County now thrives with an economic base combining education, agriculture, energy production, and commerce into an outstanding quality of life for its nearly 90,000 residents.

Indiana has become known as the birthplace of film star Jimmy Stewart and as the Christmas Tree Capital of the World. Visitors and locals alike can relive Indiana County’s past by visiting its parks, covered bridges, fairs, and even the largest Amish settlement in western Pennsylvania. As one of nine counties represented in America’s Industrial Heritage Project, Indiana County has a number of historical sites that are part of the project’s Path of Progress. The project’s archives are housed in the Special Collections section of IUP’s Stapleton Library.

Alumni

With an alumni base that comprises more than 140,000 individuals, the university has come to rely on the support of its alumni in a variety of areas. These include career networking, student recruitment, speaking to classes, and mentorings, as well as service on the Alumni Association Board of Directors and a number of advisory committees.

Graduates automatically become members of the Alumni Association. They are encouraged to continue their connection with IUP through the Alumni Association and online services at www.alumni.iup.edu and through periodicals like IUP Magazine.

Buildings and Grounds

In 1875, the main campus consisted of 12 acres and one building, John Sutton Hall. With the addition in 1995 of 137 acres of undeveloped land, the main campus now comprises 374 acres and 65 major buildings with over 4 million square feet of usable space. Two of the buildings, Breezendale and John Sutton Hall, have been entered in the Register of Historic Places.

IUP opened its $30 million Humanities and Social Sciences Building in spring 2016, offering spaces for a variety of learning, both formal and informal. In fall 2017, IUP completed a $37 million renovation of its campus dining program, opening the third of three new facilities. IUP began the spring 2018 semester with the opening of a new Center for Multicultural Student Leadership and Engagement, which joins four other offices within the Division of Student Affairs. A new science building is in the planning stages with construction to begin 2020.

IUP also owns and operates four residential and educational facilities at the Punxsutawney Regional Campus in Jefferson County, where approximately eight acres provide the real estate for the IUP Living and Learning Center.
Connectivity for student computers (wired) in the residence halls is provided through the Office of Housing, Residential Living, and Dining. In addition, wireless connectivity is prominent at IUP. The IUP Wireless Network is available in all classroom buildings, all suite-style residence halls, Stapleton Library, the Hadley Union Building, and the Oak Grove.

IT Services’ enduring mission is to provide a modern, mainstream IT environment to the university community in a manner that is both flexible and versatile while delivering services in a timely, yet cost-effective manner. Guidance in this area is provided by each university division vice president, the Academic Computing and Policy Advisory Committee (ACPAC), and the Technology Operation Team (TOT).

**IT Support Center**

**Website:** www.iup.edu/itsupportcenter; **E-mail:** it-support-center@iup.edu

The IT Support Center provides proactive and reactive measures to assist students of IUP with orientation to and use of computers and other technology at IUP. One of the goals of the IT Support Center is to provide students with a place to go for advice and assistance with issues related to computers and other technology on the campuses of IUP.

The center can address student questions concerning e-mail, web pages, computer account usage, policies, and network services. Students may contact the support center via ihelp at https://ihelp.iup.edu or, for emergency issues, via phone (724-357-4000). The website (above) includes several sections that might help students to answer their own questions. Students are also welcome to visit the IT Support Center at Delaney Hall, Suite G35, for personal assistance with their computing problems.

**The IUP Libraries**

Patrick J. Stapleton Jr. Library, the central library for IUP, was completed and dedicated in 1981. It adjoins Rhodes R. Stabley Library which results in a combined structure of 156,000 square feet. The Orendorff Music Library, located in Cogswell Hall, and the regional campus libraries at Northpointe and Punxsutawney are the other components of the IUP Libraries system. Fourteen library faculty members, 14 staff members, and more than 150 students are employed in the Libraries division of the university.

The IUP Libraries serve the academic and research needs of students and faculty. Library collections and holdings include 526,098 print volumes, 279,110 electronic books, 263 print periodical subscriptions, and over 80,000 full-text electronic professional journals. The library subscribes to 359 full-text electronic databases and has a collection of 146,806 microforms. The Libraries supplement its holdings via Interlibrary loans services.

The Orendorff Music Library, located in Cogswell Hall, contains approximately 12,000 books, 30,000 scores, 10,000 vinyl recordings, and 5,000 CDs. Undergraduate students may borrow non-reference music library materials.

For information about Library hours, please access our website at www.iup.edu/library.

**IUP Centers and Institutes**

The School of Graduate Studies and Research provides coordinating and support functions for campus-based centers and institutes through the Office of the Associate Dean for Research. Each center or institute is unique in its focus and is created to meet a specifically identified need. Centers and institutes provide an opportunity for faculty members to utilize their expertise through consultation, technical assistance, and research-related activities. Centers and institutes provide excellent opportunities for students to learn, to demonstrate their knowledge and skills, and to become involved in meaningful projects in the community. Centers and institutes strengthen the research and public service missions of the university and, therefore, enhance the quality of education.

A current listing of centers and institutes at IUP follows:

- Administration and Leadership Studies Research and Training Center
- American Language Institute
- Archaeological Services
- Center for Applied Psychology
- Center for Career and Technical Personnel Preparation
- Center for Creativity and Change
- Center for Digital Humanities and Culture
- Center for Family Business
- Center for Film Studies
- Center for Health Promotion and Cardiac Disease Prevention
- Center for Media Production and Research
- Center for Northern Appalachian Studies
- Center for Research in Criminology
- Center for Statistics Education in Pennsylvania
- Center for Teaching Excellence
- Child Study Center
- Criminal Justice Training Center
- Excellence in Entrepreneurial Leadership Center
- Frederick Douglass Institute
- Government Contracting Assistance Program
- Institute for Cyber Security
- Institute for Mine Mapping, Archival Procedures, and Safety
- Institute for Rural Health and Safety
- Intercollegiate Athletic Institute for Sports Camps
- IUP Community Music School
- Literacy Center
- Management Services Group
- Mid-Atlantic Research and Training Institute for Community and Behavioral Health
- Pennsylvania/OSHA Consultation Program
- Small Business Development Center
- Small Business Incubator
- Small Business Institute
- Software Development Center
- Speech, Language, and Hearing Clinic
- The Wood Center at IUP
Parking

Website: www.iup.edu/parking; E-mail: parking-services@iup.edu

Three types of parking permits are available to students: (1) Commuter permits are allocated to individuals traveling from outside the set boundaries to class each day, (2) Resident permits are designated for graduate students living on campus, and (3) Robertshaw permits are available for a fee for long-term parking by undergraduate students living in university-owned residence halls. Permits are available at the MyIUP website. Parking regulations and maps can be viewed online at www.iup.edu/parking.

The University Parking and Visitor Center is open Monday through Friday from 7:00 a.m. to 3:00 p.m. and is located at 850 Maple Street, University Towers, Indiana, PA 15705. Questions should be addressed to the Parking Services Department at 724-357-8748 (VSIT).

University Organization

The university’s administration comprises of six divisions: Academic Affairs, Administration and Finance, Enrollment Management, Student Affairs, Marketing and Communications, and University Advancement. Information about Academic Affairs, Enrollment Management and Student Affairs appears in this catalog’s sections called Academic Affairs Division Areas or Student Programs and Services. Information about the other three divisions follows.

Administration and Finance Division

The Division of Administration and Finance provides internal and external constituents of the university with the highest-quality services in the most supportive and cost-effective manner. In contributing toward the fulfillment of IUP’s mission of teaching, research, and public service, the Administration and Finance Division is responsible for the development, stewardship, enhancement, integrity, and stability of the university’s fiscal, human, and physical resources.

Major responsibilities of the division are organized and operated from the departments of Facilities Management, Finance, Human Resources, and Administration, Budget, Procurement Services and Central Stores, Public Safety and University Police.

Marketing and Communications Division

IUP’s Marketing and Communications Division has a simple goal – to shine a light on the quality and scope of IUP’s educational experience to both internal and external audiences. We tell the stories of our faculty and staff, as well as the achievements of our students and alumni, to celebrate their success, promote the value of an IUP education, and enhance the overall reputation of the university.

We work collaboratively with the university community to develop content and deliver a unified story across various platforms: the IUP website, social, digital, video, print, and various advertising and news outlets. The division includes professionals in marketing, communications, brand management, video, photography, design, and media relations. These areas are critical in crafting and communicating IUP’s overall mission and vision to a variety of constituencies.

University Advancement Division

The University Advancement division engages internal and external constituencies in support of the mission and vision of IUP. The division champions a culture of philanthropy that results in volunteerism, advocacy, and private gifts.

The University Advancement division accomplishes this mission through the following functional areas: Vice President, Alumni Relations, Development, Advancement Services, and Constituent and Donor Relations.

The division works closely with the Foundation for IUP and the Alumni Association, both private non-profit 501 (c) (3) affiliated organizations established to support IUP. These organizations are governed by volunteer boards of directors with a specific mission overseeing operations with fiduciary responsibility for programs and assets.
IUP Site Locations

IUP Institute for Rural Health and Safety
2712 West Pike Rd.
Indiana, PA 15701

IUP Academy of Culinary Arts
125 S. Gilpin St.
Punxsutawney, PA 15767

People's Educational Society-School of Management (PES)
100 Feet Ring Road
BSK III Stage
Bangalore – 560085
India

The Arab American University (AAU)
Jenin – Oakestube
240 Jenin, 3 Zababdeh
Israel

Dixon University Center
2986 North 2nd St.
Harrisburg, PA 17110

Gettysburg College
300 N. Washington St.
Gettysburg, PA 17325

Pennsylvania Highlands Community College (Johnstown)
101 Community College Way
Johnstown, PA 15904

Monroeville/Pittsburgh East
Penn Center-East
Building 4
Pittsburgh, PA 15235

Northpointe
167 Northpointe Blvd.
Freeport, PA 16229

Office of Extended Studies
R&P Building
629 Fisher Avenue
Indiana, PA 15705

Punxsutawney Campus
1012 Winslow Street
Punxsutawney, PA 15767

IUP Police Academy
Criminal Justice Training Center
S.W. Jack Bldg., Suite 300
57 South 9th Street
Indiana, PA 15701

IUP Police Academy, CalU
California University of Pennsylvania
California, PA 15419

IUP Police Academy, Robert Morris University (RMU)
6001 University Blvd.
Moon, PA 15108

CCAC Allegheny Campus
808 Ridge Ave.
Pittsburgh, PA 15212

CCAC Boyce Campus
595 Beatty Rd.
Monroeville, PA 15149

Butler County Community College
College Drive-Oak Hills
Butler, PA 16002-1203

Southwestern University of Finance and Economics (SWUFE)
555, Liutai Avenue
Wenjiang District
Chengdu, Sichuan
P.R. China, 611130
The Regional Campuses
Richard J. Muth, Director, Regional Campuses

IUP operates three regional campuses, one in Punxsutawney, one at Northpointe in Freeport, and one at Pittsburgh East in Wilkins Township. The first regional campus was established in 1962 in Punxsutawney. The following year, the Armstrong campus in Kittanning was opened. In the summer of 2005, the Armstrong campus relocated to a new facility in Freeport and became the Northpointe Regional Campus. The Pittsburgh East Campus, formerly named the Monroeville Center, was established in 1996.

Control of the regional campuses is directly vested with the IUP administration and Council of Trustees. Regional campuses carry full accreditation as integral parts of the undergraduate and graduate programs of IUP.

Programs of Study
All three campuses offer courses and programs at the undergraduate level, graduate level, or both. The Punxsutawney campus also hosts certificate programs in Culinary Arts, Baking, and Clinical Medical Assistant. All three locations also host conferences and workshops. Faculty advisors and administrators at the regional campuses are available to advise and support students on their instructional programs.

Admission
Any prospective student who wishes to attend a regional campus may apply for admission by applying online through the IUP Admissions website, www.iup.edu/admissions. Undergraduate students looking to transition to the Indiana campus are expected to complete at least two semesters and be in good academic standing prior to transitioning.

Fees
With the exception of the wellness fee, Punxsutawney Regional Campus students pay the same basic fees as Indiana campus students. Northpointe Regional Campus commuter students are not required to pay the activity fee or wellness fee. Please see the Finances section of this catalog for further information.

Rules and Regulations Concerning Student Behavior
Students at the regional campuses are subject to the same rules and regulations as students at the Indiana campus. More information is available at www.iup.edu/studentconduct/ and in the Undergraduate or Graduate Catalogs.

Northpointe Regional Campus
The Northpointe Regional Campus is a commuter campus located at Exit 18 off Route 28 with the primary mission of providing local access to higher education opportunities. These greater opportunities for residents foster economic and professional growth for the region. Both credit and noncredit programs are offered at the Northpointe campus, with special emphasis on certificate and associate, bachelor’s, and master’s degrees. Required courses for the first year and, in some majors, the second year are also offered for local IUP students.

This campus is also the host for the IUP Respiratory Care program. Junior and Senior students in this program attend the Northpointe Regional Campus to complete degree requirements.

Requests for additional information may be made to the administrative office of the campus. The address follows:

IUP Northpointe Regional Campus
167 Northpointe Boulevard
Freeport, PA 16229
724-294-3300
northpointe-campus@iup.edu
www.iup.edu/northpointe

Punxsutawney Regional Campus
The focus of the Punxsutawney Regional Campus is to offer academic opportunities needed locally, regionally, and across the commonwealth. Students will be able to complete their first year of classes in most degree programs as well as complete a growing number of certificate and associate degree programs. Online and other technology-offered classes will increase opportunities and the option to increase the time enrolled in classes on the Punxsutawney Campus.

The Punxsutawney Regional Campus has a living center supporting a residential college experience. The campus has a full-service dining commons where meals are served seven days a week when the university is in session. The same food service contractors serving the Indiana campus operate the Punxsutawney dining program.

To request additional information about the Punxsutawney Regional Campus, please contact

IUP Punxsutawney Regional Campus
1012 Winslow Street
Punxsutawney, PA 15767
814-938-6711
iup-pxy@iup.edu
www.iup.edu/pxy

Pittsburgh East Campus
The campus is located on the ninth floor of building No. 4 in Penn Center East. The campus offers 11 graduate degrees at both the master’s and doctoral level. The campus also supports noncredit programs and workshops.

Requests for additional information may be made to the administrative office of the campus. The address is:

IUP Pittsburgh East Campus
400 Penn Center Boulevard
Building 4, Suite 900
Pittsburgh, PA 15235
412-824-1999
Pittsburgh-East@iup.edu
www.iup.edu/pittsburgh-east
Student Rights

Students Rights under the Family Educational Rights and Privacy Act (FERPA)

FERPA affords students certain rights with respect to their education records. These rights are:
1. The right to inspect and review the student’s education records within 45 days of the university receiving a request for access. Students should submit their request in writing to the appropriate university official. The written request must clearly identify the part of the record the student wants to be changed and must specify why it is inaccurate or misleading. If the university decides not to amend the record as requested, the student will be notified of the decision by a university official who will advise the student of his/her right to a hearing regarding the requested amendment. Additional information regarding hearing procedures will be provided to the student when he or she is notified of the right to a hearing.
2. The right to request amendment of the student’s education records that he/she believes are inaccurate or misleading. Students should submit such requests in writing to the appropriate university official. The written request must clearly identify the part of the record the student wants to be changed and must specify why it is inaccurate or misleading. If the university decides not to amend the record as requested, the student will be notified of the decision by a university official who will advise the student of his/her right to a hearing regarding the requested amendment. Additional information regarding hearing procedures will be provided to the student when he or she is notified of the right to a hearing.
3. The right to consent to disclosures of personally identifiable information in the student’s education records, except to the extent that FERPA authorizes disclosure without consent. One exception that permits disclosure without consent is to school officials with legitimate educational interests. A school official is a person employed by the university in an administrative, supervisory, academic, or research, or support staff position (including law enforcement unit personnel and health staff); a person with whom the university has contracted (such as an attorney, auditor, or collection agent); a person serving on the council of trustees, or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his/her tasks. A school official has a legitimate educational interest if the official needs to review an education record to fulfill his/her professional responsibility. This includes school officials in other institutions to which a student is seeking admission or intends to enroll.
4. The right to file a complaint with the US Department of Education concerning alleged failures by IUP to comply with the requirements of FERPA. The name and address of the office that administers FERPA follows: Family Policy Compliance Office, US Department of Education, 400 Maryland Avenue, SW, Washington, DC 20202-4605.

Student Rights/Directory Information

The following information is considered directory information under the Family Educational Rights and Privacy Act and may be released without the student’s permission: name, address, telephone number, dates and status of attendance (enrolled, part-time/full-time) and previous institutions attended, degrees conferred, major field of study and class, awards and honors, past and present participation in officially recognized sports and activities as well as physical factors of athletes (such as height and weight), and e-mail username.

Students may request that directory information not be publicly released by completing a nondisclosure request, available in the Office of the Registrar, Clark Hall. This will result in the student’s directory information being removed from the “Find People” on-line directory on the IUP website. Upon receipt of this signed form in the Office of the Registrar, all information will be withheld, even beyond graduation, unless the student requests in writing that this nondisclosure request be rescinded.

Student Conduct Policies and Procedures

As a community, the university has developed a code of standards and expectations that are consistent with its purpose as an educational institution.

The Student Conduct Policies and Procedures articulate these standards, and can be found at www.iup.edu/student conduct. The Office of Student Conduct supports the academic mission of the university by promoting the development of a campus community characterized by reasonable safety and security, responsible behavior, civility, and respect.

Through enforcement of university policies and regulations, the office challenges students to take responsibility for their action; demonstrate respect for themselves, property, and other individuals; and develop skills that will enhance lifelong problem solving, communication, and decision-making abilities. The Office of Student Conduct can be reached at 724-357-1264, and is located in Suite G-11 Ruddock Hall.

Anti-Hazing Policy

The university prohibits hazing. The Anti-hazing Policy applies to acts conducted on or off campus if such acts are deemed to constitute hazing under the policy or Pennsylvania law. Hazing is dangerous and detrimental to the self-esteem and well-being of students, degrades the values of the involved organization, and creates an environment of disrespect that contradicts the university’s commitment to, and statement of, civility. To read the policy in its entirety, visit www.iup.edu/leadership/resources/policies/anti-hazing-policy. The policy is housed under the Center for Multicultural Student Leadership and Engagement, 128 Elkin Hall, 724-357-2598.

Sexual Discrimination/Misconduct Policy and Resources

The university is committed to providing a safe and positive living, learning, and working environment that is free from sexual discrimination and other prohibited sexual misconduct. Students, employees, and university affiliates are expected to conduct themselves in a manner that does not infringe upon the rights of others. The Sexual Discrimination/Misconduct Policy provides detailed definitions, reporting guidelines, and complaint resolution procedures. It can be found at www.iup.edu/social equity/policies/sexual-misconduct. The policy is applicable to all students and employees of the university, as well as designated volunteers, contractors, and vendors. Sexual discrimination and misconduct includes: sexual harassment, non-consensual sexual contact, non-consensual sexual intercourse, sexual exploitation, and retaliation. Resources and support services are available to the university community. Visit www.iup.edu/social equity/resources/title-ix. The Social Equity and Title IX Office can be reached at 724-357-3402, social-equity@iup.edu, title-ix@iup.edu, or in B-17 Delaney Hall.

Retaliation

Retaliation against individuals reporting violations of any university policy, or participating in an investigative or administrative process, will not be tolerated and will be addressed through the appropriate university process.
Admissions and Registration

Undergraduate Admissions Policy

Graduates of an accredited four-year high school or holders of a GED equivalency diploma are qualified to apply for admission to IUP. Students who have completed the junior year of high school may file an application any time after July 1.

Requests for applications should be addressed to
Office of Admissions
Indiana University of Pennsylvania
Sutton Hall, Suite 120
1011 South Drive
Indiana, PA 15705
724-357-2230

An online application for admission is available at www.iup.edu/admissions/undergraduate/applynow.

The Admissions Committee, giving equal opportunity to all students, will take the following criteria into consideration when reviewing each application: grades and courses taken, SAT or ACT scores, high school counselor recommendations, personal essays, and other pertinent information that would be helpful to the Admissions Committee in making decisions. SAT or ACT scores are not required for transfer applicants, veterans, or applicants who have graduated from high school more than one year before applying. However, transcripts from high school and all colleges previously attended are required of all applicants. Students who have not been enrolled in high school for a semester or more must submit a personal statement.

Applicants are strongly urged to take the usual college preparatory program in high school. Applicants should also take any available high school courses in the field of their intended major. Certain majors at IUP require completion of a foreign language at the intermediate level to earn a bachelor’s degree. The Admissions Committee does not require an applicant to take a foreign language in high school for admission to these majors; however, it is in the student’s best interest to do so.

It is possible for some students with outstanding grades to receive an offer of admission based on their strong high school transcript before SAT or ACT scores are submitted. We still require SAT/ACT scores for scholarship consideration and strongly urge all students to submit them as soon as possible to fully complete their IUP application.

Applications are considered by the Admissions Committee on a rolling basis. Under a rolling admissions policy, applications are reviewed as they become complete. Decisions can range from automatic acceptance, to requests for additional information, to other alternatives, with a May 1 deadline to submit the nonrefundable tuition deposit. After May 1, tuition deposits will be accepted based upon availability.

Academically qualified applicants to the departments of Art, Music, and Theater and Dance will be admitted to the university by the Admissions Committee. However, admission to the requested major will be subject to the acceptance by the Department of Art after a portfolio review and by the departments of Music, and Theater and Dance after an audition. Students will receive information from the Art, Music, and Theater and Dance departments concerning auditions and portfolio reviews once they have been accepted to IUP.

Freshman Applications

All people expecting to apply for freshman admission to IUP should plan to take the SAT or ACT test during their junior and/or early part of their senior year. The Admissions Committee recommends that students take the tests more than once. The committee considers the highest scores from all tests taken.

Arrangements to take the SAT can be made online at www.collegeboard.com and sent to IUP using the code 2652. Arrangements to take the ACT can be made online at www.act.org and sent to IUP using the code 3704.

SAT/ACT scores on the student’s official high school transcript are considered official scores.

Transfer Admissions

A student who has been attending another institution of higher education and wishes to transfer to IUP must submit an application, official transcripts of all postsecondary educational work, and an official high school transcript. Students who have not been enrolled in college for a semester or more must submit a personal statement.

All admissions decisions are made on a rolling basis by the Admissions Committee. Under a rolling admissions policy, applications are reviewed as they become complete. Decisions can range from automatic acceptance, to requests for additional information, to other alternatives, with a May 1 deadline to submit the nonrefundable tuition deposit. After May 1, tuition deposits will be accepted based upon availability.

Transfer applications are reviewed on the basis of academic college course work attempted or completed. This course work should be nondevelopmental and nontechnical in nature and be taken from an institution that is accredited by one of the six regional accrediting agencies. Transfers are required to have at least a cumulative 2.0 GPA on a 4.0 scale (C average) from all schools previously attended and to have met the minimum requirements established by the academic department to which the student is applying. Some majors require increased standards for admission and additional information. Contact the Office of Admissions for specifics. In addition, the admissions decision considers other evidence of students’ performance and ability to be a successful college student.

The evaluation of credits from other institutions of higher education is the responsibility of the Office of Admissions and the application of the credits is at the discretion of the academic dean who has jurisdiction over the student’s desired major. Normally, courses considered for transfer are only those taken from institutions that are accredited by the six regional accrediting agencies. Each course is evaluated separately. The evaluation includes a review of the description, credits, and grade of each course along with the applicability of the course to the student’s major at IUP. However, only credits transfer, not grade point average. It has been the policy of the university that only courses with a grade of “C” or better will be accepted, except for two-year associate degree graduates of state-supported community colleges in Pennsylvania. No matter how many credits are transferable, the student must satisfy all of the degree requirements falling into the categories of (1) university requirements, (2) college requirements, and (3) department requirements.

University Requirements: Since all students are obliged to fulfill a basic program in Liberal Studies consisting of a minimum of 40-48 credits and there is a reasonable degree of flexibility in the Liberal Studies requirements, the transfer evaluator will look to this area first for applicable credits for transfer. Most introductory courses are generally equivalent.

Placement Test Policy

Entering students are required to complete placement tests before course registration. Based on their placement results, students may be required by departments to take one or more additional courses in preparation for their courses. These courses may be in addition to course prerequisites and the minimum requirements for the students’ program of study. Students who have prepared as directed, taken testing seriously, and still believe their test scores do not accurately reflect their abilities should appeal their placement by contacting the Office of New Student Orientation.

IUP Residency Requirement for Awarding of Degrees

All students receiving their first baccalaureate degree are required to complete 30 of their last 60 credits in courses at IUP. All students receiving their first associate degree are required to complete 15 of their last 30 credits in courses at IUP.

For an IUP major, minor, or undergraduate certificate, students are required to complete at least 50 percent of required credits in courses at IUP or
another State System institution. Junior/Senior year Study Abroad semesters or other formal Articulation agreements in which State System students may reverse-transfer credits back to IUP are exceptions to this policy.

For undergraduate active-duty service members, IUP applies a more military-friendly set of residency requirements, and these students should consult the Military and Veterans Resource Center for more information.

IUP courses include all courses listed in the Undergraduate Catalog and Graduate Catalog.

Second Baccalaureate Degree

A student with an earned baccalaureate degree who wishes to complete the requirements for a second or subsequent bachelor’s degree must make application and submit official transcripts indicating degree(s) awarded. The student must complete a minimum of 30 additional IUP credits beyond those earned in his/her initial bachelor’s degree and meet the requirements for graduation established by the academic department and college in which the new degree is to be earned. Students apply as undergraduate transfer students through the Office of Admissions.

Teacher Certification

A college graduate with an earned nonteaching baccalaureate degree who wishes to complete the requirements for Instructional Level I Certification must apply as a second bachelor’s degree student. A minimum 3.0 cumulative GPA and successful PAPA scores are required for consideration for admission. Following admission to the program, applicants will be required to meet all requirements of the 3-Step Process for Teacher Education as they proceed. This document can be found in the College of Education and Communications section of this catalog or at the website www.iup.edu/teachereducation

A Pennsylvania-certified teacher who wishes to add a new area of certification may apply to the Office of Extended Studies for admission as a postbaccalaureate student.

Act 101 Program

Students identified as eligible for Act 101 support may be admitted to the Act 101 Program through the Department of Developmental Studies in the College of Education and Communications. Please see detailed information in the Department of Developmental Studies description in the College of Education and Communications section of this catalog.

Program for Visiting High School Students (Dual Enrollment)

IUP permits exceptional high school student to preview university life and earn regular college credit on a limited nondegree basis. Students should contact the Office of Admissions to inquire about the Dual Enrollment Program.

Immunization Requirements

Students are required to complete a Student Health form documenting immunization status. See Health Services information in section “Student Programs and Services.”

Reenrollment/Readmission Policy for Students Who Withdraw from the University

To return to the university, log into MyIUP and select “Academics.” You will find “Apply for Reenrollment to IUP” in the “Academic Record” portlet. Complete and submit the form. If you don’t have a MyIUP accounts, claim your account to get MyIUP access. (Note: If you last attended prior to fall 2000, complete a paper application for re-enrollment: www.iup.edu/registrar/forms.) For more information on IUP’s re-enrollment/readmission procedures, please access the Registrar’s website at: www.iup.edu/registrar/policies/readmission-procedures.

For Students in Good Academic Standing

a. Previously matriculated undergraduate students who have registered for classes in at least one of the two previous regular academic semesters can re-enroll for courses by contacting their department for advising and an alternate PIN number.

b. Undergraduate students who have withdrawn from the university voluntarily or who have not been enrolled in the previous two or more regular academic semesters must submit an online application for re-enrollment through the Office of the Registrar. Applications may be submitted up to one week prior to the start of the semester for which the student wishes to return. After processing the application, the student will be sent information regarding registration.

For Students Not in Good Academic Standing

Students not in academic good standing (regardless of whether the student was dismissed by the university or voluntarily withdrew) must submit an online application for re-enrollment consideration through the Office of the Registrar. Applications may be submitted up to two weeks prior to the start of the semester for which the student wishes to return. An Academic Standards Officer will review the application and make a decision on the student’s eligibility to return. If approved, the student will be sent information regarding registration.

If the student is seeking admission to a new college, the Academic Standards Officer of the new college will consult the Academic Standards Officer of the former college before making a decision.

For Students Who Have Been Involuntarily Withdrawn from the University

Please see IUP’s Involuntary Withdrawal Policy and its readmission process for information.

a. Separate from the re-enrollment/readmission process, a returning student may be required to address outstanding holds of any kind before being allowed to register for classes.

b. Some programs may have enrollment restrictions that affect re-entry. Check with the dean’s office of the college housing the major.

c. Applications for students seeking to change their major will be forwarded to the Academic Standards Officer of the college of the requested major. A change of major request will be initiated on the student’s behalf. If approved, the Office of the Registrar will officially change the major while reactivating the student account for registration.

d. Students who want to be considered for financial aid must complete the Free Application for Federal Student Aid (FAFSA) to determine their financial aid eligibility. Eligibility will be based on financial need, as determined by the FAFSA, and on prior academic record.

e. Returning students who have not been enrolled for two years or more may petition their college dean for application of the Canceled Semester Policy, which provides for cancellation from the cumulative record of the effects of one semester below a GPA of 2.0. Students who have been separated from the university for two consecutive calendar years may petition their college dean to return under the Fresh Start Policy. Students must pay fees and attend classes before a designated semester will be cancelled or the Fresh Start Policy will take effect. Details regarding these policies can also be found in the Academic Policies section in the Undergraduate Catalog.

The Summer and Winter Sessions

The Summer and Winter Sessions at IUP are designed to meet the needs of many students. Courses, workshops, and seminars are offered in the liberal arts, teacher education, and other fields of study.

Continuing university students, including newly admitted freshmen, who wish to accelerate their program of studies will find both Liberal Studies and special courses in all fields of study. Students from other colleges and universities may take courses at IUP; however, they are advised to first ensure that their home institution will transfer such credits earned at IUP.
Teachers-in-service will find courses in the summer program to serve a variety of needs. They may enroll to qualify for permanent certification, satisfy Act 48 requirements, take refresher courses in their field of specialization, or take courses for the purpose of extending their certification to a new field.

The Summer Sessions schedule can be viewed at the website www.iup.edu/summer. The Winter Session schedule can be viewed at the website www.iup.edu/winter.

Attendance at Summer and Winter Sessions undergraduate courses is open to all students but does not constitute admission or reenrollment for continuing registration in the fall and/or spring semesters. IUP students with less than a 2.0 cumulative GPA must receive approval from their dean’s office before attending Summer or Winter courses. Non-IUP students (graduate and undergraduate) can submit an electronic form that can be accessed at the website www.iup.edu/summer or www.iup.edu/winter. Students who desire reenrollment should apply to the Office of the Registrar at least one week before the start of the semester for which a student is applying.

There is a one-class limit for IUP students for Winter session unless permission is granted by the assistant/associate dean of the student’s college.
**Finances**

**Institutional Fees**

*The university reserves the right to change its fees without notice. The fee schedule is subject to change; these figures are to be considered simply as an estimate. The most current fee schedule can be obtained by writing to the IUP Office of Admissions, by phoning 724-357-2230, or by visiting the website [www.iup.edu/bursar](http://www.iup.edu/bursar).

**Tuition**

Tuition covers the keeping of student records, use of the library, student welfare, and laboratory facilities. The most current fee schedule for in-state and out-of-state students can be obtained by visiting the website [www.iup.edu/bursar](http://www.iup.edu/bursar).

An in-state student is one who has been domiciled in Pennsylvania for at least one year preceding attendance at any institution of higher education in the state of Pennsylvania. A minor is presumed to have the domicile of his/her parents or legal guardian. Students who have any questions concerning their domicile should read the official text of the rules, as published in Volume 22, Pennsylvania Code, Section 507.1 through 507.11.

**Dining Plan Fee**

Current dining plans and rates can be found at: [www.iup.edu/housing](http://www.iup.edu/housing). Residential students are required to have a dining plan and can select from six plans. Meals provided through these plans are for the use of the contract holder only. Flex money can be carried from fall to spring semester; however, any portion not used by the end of the spring semester will be forfeited. Flex may be used for guests.

**Wellness Fees**

All students enrolled on the Indiana campus pay a Wellness Fee. Students enrolled on other campuses are not assessed this fee. The services of the Center for Health and Well-Being are supported by student wellness fees. These services include the Health Service; Counseling Center; Alcohol, Tobacco, and Other Drugs; Fitness and Recreation; Health AWAREness; Haven Project; Nutrition Connection programs; Disability Services; and Athletics.

The Wellness Fee will be based upon the number of credits taken. Students will be charged $20.00 per credit, with a cap of 15 credits. Students from other campuses may choose to pay this fee and receive care on the main campus.

Additional charges may be necessary depending on the service provided. The Wellness Fee may be reduced or waived in certain circumstances. By reducing or waiving the fee, students are no longer able to access all services at the Center for Health and Well-Being. For detailed information about available services or fee waivers, visit [www.iup.edu/chwb](http://www.iup.edu/chwb).

To request an exemption from this fee, students must complete the Activity and Wellness Fee Exemption Request form and e-mail it to [bursars-office@iup.edu](mailto:bursars-office@iup.edu). Forms are also available for completion in the Office of the Bursar in Clark Hall.

**Instructional Fee**

All students are charged an instructional fee to support academic equipment, library resources, maintenance and repair projects, recreational facilities, and the advancement of technologies. The fee is $34.20 per credit for resident students with a max of $410.40. The fee is $83.40 per credit for nonresident students with a max of $1000.80 per credit.

**Registration Fee**

All students are charged a registration fee of $32 per semester.

**Late Registration Fees**

Late registration fees are assessed to students whose initial semester registration for the following term (fall or spring) occurs during the following timeframe:

- $100 will **NOT** be assessed during the fall 2019 or spring 2020 semesters.
- $200 will **NOT** be assessed during the fall 2019 or spring 2020 semesters.

The fee does not apply to adding or dropping classes to an existing schedule.

**Tobacco, and Other Drugs; Fitness and Recreation; Health AWAREness; These services include the Health Service; Counseling Center; Alcohol, Trustees. This fee covers the cost of student activities in recreation, athletics, lectures, entertainment, student organizations, student publications, etc. and is payable in one lump sum for the semester. The Student Activity Fee is assessed each semester on a per-credit basis as follows: $42 per credit for all students, capped at 15 credits ($630) for undergraduate students and 12 credits ($504) for graduate students. This fee is assessed only to students attending the Indiana and Punxsutawney campuses.

To request an exemption from this fee, students must complete the Activity and Wellness Fee Exemption Request form and e-mail it to [bursars-office@iup.edu](mailto:bursars-office@iup.edu). Forms are also available for completion in the Office of the Bursar in Clark Hall.

**Student Activity Fee**

This fee is collected from all students and administered through the Student Cooperative Association under regulations approved by the Council of Trustees. This fee covers the cost of student activities in recreation, athletics, lectures, entertainment, student organizations, student publications, etc. and is payable in one lump sum for the semester. The Student Activity Fee is assessed each semester on a per-credit basis as follows: $42 per credit for all students, capped at 15 credits ($630) for undergraduate students and 12 credits ($504) for graduate students. This fee is assessed only to students attending the Indiana and Punxsutawney campuses.

**Student Service Fee**

This fee is assessed for the purpose of acquiring, installing, and maintaining up-to-date and emerging technologies to enhance student learning outcomes. The fee will be assessed to all students per semester as follows:

- **Pennsylvania residents:** $20 to a maximum of $252
- **Nonresident students:** $30 to a maximum of $372

**Transportation Fee**

This fee of $18 is assessed to students to address issues related to parking and to improve the transportation system available to students, including increased bus service.

**Technology Tuition Fee**

In some courses, students are required to provide supplies and materials to complete course projects. In many courses, a student may make a voluntary contribution to a cooperative fund established for the purpose of obtaining these supplies and/or services at a lower cost. Examples are art courses, field trips, etc.

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- $200 will **NOT** be assessed during the fall 2019 or spring 2020 semesters.

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**Other Costs**

In addition to the listed fees, the average student will require $500-$1,200 per semester for books, gymnastic costume, student organization dues, personal expenses, etc. These charges are not direct university charges.

**Residence Hall Fee**

Current housing rates can be found at [www.iup.edu/housing](http://www.iup.edu/housing). Resident students are required to have a dining plan and can select from six plans (see Dining Plan Fee).

**Miscellaneous Costs**

In some courses, students are required to provide supplies and materials to complete course projects. In many courses, a student may make a voluntary contribution to a cooperative fund established for the purpose of obtaining these supplies and/or services at a lower cost. Examples are art courses, field trips, etc.

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## Summer Sessions Fees

### Basic Tuition Fee
The most current fee schedule can be obtained by writing to the IUP Office of Admissions, by phoning 724-357-2230, or by visiting the website [www.iup.edu/bursar](http://www.iup.edu/bursar).

### Summer Dining Plan Fees
Current summer dining fees can be found at [www.iup.edu/housing](http://www.iup.edu/housing). Students are charged for each session according to the number of weeks they require housing. Resident students can select from two dining plans, 19 meals per week or 14 meals per week.

### Summer Instructional Fee
All students are charged an instructional fee to support academic equipment, library resources, maintenance and repair projects, recreational facilities, and the advancement of technologies. This fee is $33.20 per credit for in-state students and $34.00 per credit for out-of-state students.

### Summer Registration Fee
All students are charged a registration fee of $32 for the summer.

### Summer Residence Hall Fee
Current summer housing fees can be found at [www.iup.edu/housing](http://www.iup.edu/housing). Students are charged for each session according to the number of weeks they require housing. Resident students can select from two dining plans, 19 meals per week or 14 meals per week.

### Summer Student Activity Fee
This fee in the summer is $42 per credit for undergraduate students.

### Summer Student Services Fee
This fee in the summer is $17 per credit for undergraduate students.

### Summer Student Wellness Fee
There is no mandatory wellness fee in the summer. All summer student health fees are optional. For further information, contact the Center for Health and Well-Being at 724-357-9355.

### Summer Technology Tuition Fee
This fee is assessed to all students per summer session as follows:
- **In-state:** $20/credit
- **Out-of-state:** $30/credit

## Winter Session and Distance Education Only Technology Tuition Fee
This fee is assessed to all students per winter session or distance education-only as follows:
- **In-state:** $20/credit
- **Out-of-state:** $30/credit

## Special Fees

### Additional Course Fees
Additional fees may be attached to some courses; standard tuition fees are also charged. Courses currently carrying additional fees follow.
- **Applied Music Fee:** $100 per credit—Students enrolled in applied music (APMU) courses will be assessed this fee.

### Application Fee
A nonrefundable $25 application fee must accompany the application for admission to the university.

### Advance Deposit Fee
An advance deposit—tuition fee of $150 is required of all incoming freshmen to reserve a space in the freshman class and a dormitory room if applicable. All students desiring a residence hall room are also required to place an advance deposit housing fee of $80 (fall semester only). These deposits are nonrefundable.

### Audit Fee
Full instructional fees are assessed for each course audited, with the exception that people on Social Security or equivalent retirement benefits are given remission of basic fees for such classes where space is available.

### Bad Check Charge
A fee of up to $34 for handling charges will be assessed for each check or draft not honored by the bank upon which the check or draft was drawn for any reason, except in the event of a verifiable bank error.

### Clinical Laboratory Registration Fee
A registration fee of $32 will be paid to IUP. This fee is for students enrolled at IUP but attending classes at a designated clinical facility. Tuition, room, and board charged for these students are to be paid by the student directly to the hospital or institution.

### Damage Fee
Students are responsible for damage, breakage, loss, or delayed return of university property.

### Disney International Program Fee
International students participating in the five- to seven-month Disney Reciprocal Exchange Program through the Office of International Education are assessed a fee of $2,000.

### Evacuation and Repatriation Fee
All registered international students will be charged this fee of $40 per fall semester, $55 for spring, and $25 for summer.

### Examination for Credit Fee
A fee of $40 will be assessed for each examination taken for credit.

### I-Card Production Fee
A nonrefundable $15 fee is charged to all incoming students for production of their I-Card. There is also a $15 I-Card replacement fee for all replacement I-Cards.

### Immigration Fee
All registered international students will be charged a nonrefundable immigration fee of $75 per semester.

## Installment Payment Fee
A nonrefundable fee per semester is charged to students participating in the
monthly installment payment plan. $50 for 4 payments, $45 for 3 payments, and $40 for 2 payments.

**International Student Orientation Fee**
This fee of $125 is charged to all international students who register for the IUP orientation program to support associated costs.

**International Student Placement Testing Fee**
This fee of $45 is charged to all international students who test.

**Student Conduct Fines and Fees for Service**
Based on student conduct sanctions, the following fees will be assessed:
- BASICS-Alcohol/Marijuana: $35
- Alcohol/Chemical Health Assessment: $45
- Disciplinary Probation: $100
- Stayed Removal from residential building: $150
- Removal from halls: $150
- Ban from halls: $150
- Stayed Suspension: $200
- Suspension (must be paid to re-enroll): $300
- Failure to Appear–administrative hearing: $100
- Failure to Appear–Conduct Board hearing: $200

**Late Payment Fee**
A fee of $30 will be assessed on each monthly payment received five days after the due date, with a maximum of $120 per semester.

**National Student Exchange Program Fee**
A one-time $250 nonrefundable fee is charged to IUP students participating in the National Student Exchange Program. Students attending IUP under the National Student Exchange Program will be charged the Pennsylvania resident basic fee and have the application fee waived.

**Off-Campus Instructional Fee**
A fee of 10 percent of the undergraduate in-state tuition rate will be charged to students taking courses at an off-campus site and/or using distance education technology to cover operating costs for services and instructional support at off-campus sites.

**Portfolio Application/Assessment Fee**
A nonrefundable $15 fee will be charged to a student for each portfolio application per course. Before the assessment, a nonrefundable fee of one-half the current tuition per credit is required.

**Teacher Certification Fee**
A fee of $60 payable to the Commonwealth of Pennsylvania is charged to cover the administrative and recording costs for the issuance of a teaching certificate by the Department of Education. A $35 fee is charged for students applying for out-of-state certification.

**Testing Fee**
All entering freshmen must participate in orientation and placement testing during the summer immediately preceding the student’s matriculation on campus. Fees (assessed by type of admit) of $155 for the one-day testing program and $255 for the two-day program are charged. The placement restesting fee is $30. Please see the catalog section on New Student Orientation for further information about the orientation programs for new freshman and transfer students.

**Transcript Fees**
Printed and electronic transcripts ordered online cost $10/copy and are processed the same business day. All details and complete instructions are found on the Office of the Registrar’s website, www.iup.edu/registrar.

Transcripts will be withheld by IUP if a student has an outstanding financial account with the university. Payment of the bill or establishment of a payment plan satisfactory to the university will be required for release of transcripts.

**Billing and Payments**
All bills are available online through IUP EasyPay, which can be accessed through MyIUP. Students may choose from two different payment plans; otherwise, it is recommended that payment be made in full. Payment by American Express, MasterCard, Discover, VISA, and ACH e-checks is available online. Payment can also be made by mail to the Office of the Bursar.

**Financial Delinquency Policy**
Registration is not complete until a student pays the fee for registration, and the university reserves for itself the right to bar a nonpaying student from classes. When it has been determined during the course of a semester that a student’s account has become delinquent from accrued charges, the Office of the Registrar will be notified of this delinquency and advised to refrain from allowing the student to make further registration transactions, from reporting the student’s grades, and from issuing any transcripts for that student’s work until the delinquent account has been satisfied. Faculty members will submit a grade for the financially delinquent student; however, requests from the student will not be honored, and official reports will be released by the Office of the Registrar only after the student has cleared his or her account or has established a payment plan satisfactory to the Office of the Bursar.

**Delinquent Accounts**
Students are not permitted to enroll for any semester, receive transcripts, or graduate until all account balances have been paid in full. Also, credit will not be certified to any other institution until all overdue accounts have been paid. A late payment fee of $30 will be assessed each month on accounts that are not paid within five days of the due date with a maximum of $120 per semester. The same regulations will also be applied to inter-semester payments.

Undergraduate students desiring to leave school before the close of a semester must report to the Department for Disability Access and Advising and to the Office of the Bursar to settle all unpaid accounts.

**Payment of Financial Aid**
Financial aid programs that can be deducted from a student’s university bill include Federal Direct Loan, Federal Direct PLUS Loan, Federal Perkins Loan, Federal Pell Grant, Federal Supplemental Educational Opportunity Grant, Pennsylvania State Grant, and IUP scholarships.

Federal Work Study earnings are paid directly to the student every other week and thus are not used for billing purposes. All other financial aid is paid directly to the student’s account. If a credit balance exists after satisfying all IUP charges, excess funds will be refunded to the student for other educational expenses.

**IUP Refund Policy**
For a copy of IUP’s Refund Policy or a sample refund calculation, please contact the Office of the Bursar at 724-357-2207. The Refund Policy is also available at www.iup.edu/bursar.

**Financial Aid**
The Financial Aid office, located in Clark Hall, offers financial information and counseling to all students attending IUP. The types of financial assistance offered by the Financial Aid office include student employment, educational loans, scholarships, and grants. Counseling on debt management and loan repayment options is also available.

**Eligibility Requirements**
The general requirements for financial aid eligibility include the following:
1. Be enrolled on at least a half-time basis (6 credits per semester) except for the Federal Pell Grant program and Federal Work Study program.
2. Be a US citizen, national or permanent resident, or other eligible noncitizen.
3. Maintain satisfactory academic progress in your course of study.
4. Be enrolled or accepted for enrollment in an associate degree,
bachelor’s degree, postbaccalaureate teacher’s certification, postbaccalaureate second undergraduate degree program, or eligible certificate program.
5. Not be in default and not have failed to make satisfactory arrangements to repay any federal student loans.
6. Not owe a repayment on a Federal Pell Grant or Federal Supplemental Educational Opportunity Grant.
7. Resolve unusual enrollment history (if required).
8. Not have borrowed in excess of any federal loan limits.
9. Be registered with the Selective Service Administration, if required.
10. Have a valid Social Security number.

Students must submit a Free Application for Federal Student Aid (FAFSA) as soon as possible after October 1st to receive maximum consideration for need-based financial aid administered through the university. The Title IV school code for IUP is 003277. Additional forms or applications may be required, depending on which student aid programs are being sought. Financial aid is available for both the regular academic year and the summer sessions. Separate applications for summer aid must be submitted by the student/parent for some aid programs.

Student Responsibilities—Students who apply for financial aid have certain responsibilities, which are listed below:
1. Accurately complete and submit the appropriate applications/forms by the published deadlines dates.
2. Submit requested materials, corrections, or new information on a timely basis.
3. Meet the regulations and repayment schedules of student loans.
4. Inform the Financial Aid office of any grants, scholarships, or loans received from outside organizations.
5. Inform the Financial Aid office of any information that has changed since applying for aid.
6. Understand the satisfactory academic progress requirements for maintaining financial aid eligibility.
7. Use financial aid funds for educational purposes only.

Financial Aid Programs Available
Financial assistance is available in the form of grants and scholarships, student employment, and educational loans. Each of these funding sources has unique characteristics explained in more detail below.

Employment
The Student Employment Program is available to assist students in finding job opportunities on or off campus. Students may gain access to a listing of available positions by accessing the online job listing at www.iup.edu/studentemployment.

The Student Employment Program assists students in finding part-time employment. During the spring semester, a Spring Career Fair is conducted, providing IUP students the opportunity to meet with representatives from a variety of organizations (i.e., camps, amusement parks, resorts, recreation areas, and restaurants). Representatives from local and out-of-state organizations attend the fair. Students may view a listing of seasonal job opportunities by visiting the website www.iup.edu/studentemployment.

Students may be employed on campus for up to 25 hours per week when classes are in session and up to 40 hours per week during breaks, including summer.* When classes are in session, most students work an average of 10 to 12 hours per week. Students are paid every two weeks for the hours they have worked. Generally, undergraduate students are paid at the minimum wage rate.

All students are eligible to work on campus.* There are two basic types of funding sources: (1) Federal Work Study Program (FWSP) and (2) University Employment (UE). Eligibility for FWSP is based on demonstrated financial need as determined from the Free Application for Federal Student Aid (FAFSA), which must be completed every year. Inquiries about eligibility for FWSP should be directed to the Financial Aid office. Students who do not demonstrate financial need may seek UE opportunities. No financial aid application is required.

An FWSP award may affect eligibility for student loans. For more specific information on how an FWSP award could impact loan eligibility, students should inquire at the Financial Aid counter in the lobby of Clark Hall or by e-mail at financial-aid@iup.edu.

Off-campus employment opportunities vary by organization, as do the hourly wages and hours worked per week.

*International students’ circumstances may vary. For more information, please consult Student Payroll Services (724-357-2510, G-8 Sutton Hall).

Service Learning Work Study Program—This employment program places FWSP-eligible students in community service positions available off campus. In addition to earning money, students gain practical work experience related to their academic major. The Service Learning Center, which assists students in obtaining these opportunities, is part of the Career and Professional Development Center, located in 302 Pratt Hall.

PHEAA State Work Study—This employment program provides Pennsylvanian students with employment opportunities in high technology and community service fields. Students can gain career-related, on-the-job work experience. Applications are available through the PHEAA website at www.pheaa.org and must be completed by both the student and the organization with which the student would like to be employed.

Important Disclaimer: The IUP Career and Professional Development Center serves only as a clearinghouse of information regarding job and internship opportunities. The listing of a position should not be interpreted as an endorsement. Students and alumni should personally research openings and agencies prior to entering into any contractual agreements. Accordingly, IUP expressly disclaims any liability in connection with potential or actual employment which results from any applicant’s response to any job posted on the website.

Educational Loans
Loan programs offer repayable assistance to students who apply and qualify for them. Repayment terms, interest rates, and borrowing limits vary from program to program. Educational loans are a serious and important obligation. Receipt of funds means that the student assumes the legal responsibility for repayment of the loan at a future date. The promissory note for the loan specifies the terms and conditions under which the student is borrowing and the repayment provisions that are in effect. Participation in community service positions after leaving school may provide for repayment of certain student loans.

Federal Direct Subsidized and Unsubsidized Loan—The application for the Federal Direct Loan is the Free Application for Federal Student Aid (FAFSA). First-time borrowers will also need to complete a Federal Direct Loan Master Promissory Note (MPN) and entrance counseling to finalize the approval process. Both the MPN and entrance counseling can be completed at https://studentloans.gov.

Through this program, freshmen may borrow up to $5,500 per academic year, sophomores may borrow up to $6,500 per academic year, and juniors and seniors may borrow up to $7,500 per academic year. An academic year at IUP is defined as the fall, spring, and summer. Subsidized Federal Direct Loans are awarded on the basis of financial need as determined by the FAFSA and require no payment of principal or interest until six months after the student ceases half-time enrollment (6 credits per semester). Unsubsidized Federal Direct Loans require payment or capitalization of interest only during periods of enrollment and the six-month grace period. Following the grace period, both types of Federal Direct Loans are repayable to the US Department of Education, which can also provide current interest rate information.

Additional Unsubsidized Federal Direct Loan funds are available to independent undergraduate students. Freshmen and sophomores may receive up to $4,000; juniors and seniors may receive up to $5,000. Dependent students whose parents cannot obtain a Federal Direct PLUS Loan may also be eligible for these additional unsubsidized funds. As of July 1, 2013, a first-time Federal Direct Student Loan borrower is no longer eligible for...
the subsidized direct loan if he or she exceeds 150 percent of the program’s published length. In addition, a borrower exceeding the 150 percent of the program length will lose the interest subsidy on his or her subsidized direct loans.

**Federal Direct PLUS Loan**—Parents interested in obtaining the Federal Direct PLUS Loan must establish their eligibility for the loan through a preapproval process at [https://studentloans.gov](https://studentloans.gov). Parents may borrow for their dependent children up to the cost of education minus other financial aid. The loans are repaid starting 60 days after the final disbursement for the loan period is issued, however, in-school deferment provisions are available. The US Department of Education can provide current interest rate and deferment information.

**Alternative Loans**—A wide variety of privately financed educational loan programs are available. Each of these programs offers unique terms and conditions that affect its availability in particular circumstances. Check the ElmSelect web page at [www.elmselect.com](http://www.elmselect.com) for a list of those alternative loans borrowed by IUP students in the last five years, if the lender is still participating.

**Grants**

Grants are funds that carry no obligation for repayment. These funds are awarded to the student on the basis of financial need.

**Federal Pell Grant**—The Federal Pell Grant program provides funds to eligible undergraduate students who have not earned a first bachelor’s degree or who have not used their lifetime limit. A Free Application for Federal Student Aid (FAFSA) must be filed annually to apply for this grant. Awards are based on the number of credits for which a student is enrolled on the 15th day of the term for the Fall and Spring. Students may be eligible for a Pell Grant for fall/spring and summer. A maximum of 12 full-time semesters (or its equivalent) of eligibility is permitted.

**Federal Supplemental Educational Opportunity Grant (FSEOG)**—Federal Pell Grant-eligible students are considered for FSEOG. Grants are awarded based on a combination of financial need and the receipt date of the annual FAFSA application. Students who receive FSEOG must be enrolled for at least 6 credits each semester.

**Pennsylvania State Grant (PHEAA Grant)**—PHEAA Grants are available to eligible part-time and full-time undergraduate students who are Pennsylvania state residents. You must complete a Free Application for Federal Student Aid (FAFSA) by May 1 to be considered. First-time applicants are also required to complete a PHEAA information form. Academic progress guidelines require that a student earn 12 new non-remedial credits (or its equivalent for part-time students) for each full-time semester for continued eligibility of grant funds. A maximum of 8 full-time or 16 part-time semesters of eligibility is permitted. During summer sessions, students must be enrolled for a minimum of five weeks.

**State Grants**—Some state educational agencies offer grant assistance to students who study outside of their state of residency. Out-of-state students are encouraged to investigate opportunities for grant funding from their home state.

**Scholarships**

**IUP Scholarships**—Departments, colleges, and the University Scholarship Committee administer various scholarship programs that have been established by alumni and friends of the university. These scholarships provide gift assistance to academically talented students and assist them in financing their educational expenses. In addition to the admission application, a general scholarship application is available at [https://iap.scholarships.nyeboxsolutions.com](https://iap.scholarships.nyeboxsolutions.com). Eligible students are automatically considered for scholarship opportunities. See the website [www.iup.edu/scholarships](http://www.iup.edu/scholarships) for further information, including contacts for each scholarship. General questions may be directed to the scholarship coordinator in the Financial Aid office, 200 Clark Hall, 1090 South Drive, Indiana, PA 15705; telephone: 724-357-2218; e-mail: financial-aid@iup.edu.

**PASSHE Foundation Scholarships**—Students who attend a Pennsylvania State System of Higher Education University (PASSHE) can apply for scholarships from the PASSHE Foundation. These scholarships have been established to assist both undergraduate- and graduate-level students. For more information and applications, students should visit [www.thepafoundation.org](http://www.thepafoundation.org).

**PHEAA-Administered Scholarships and Special Programs**—Pennsylvania resident have financial aid available in the form of grants, scholarships, special programs, work-study opportunities, or loan forgiveness. Different types of aid are available for both undergraduate and graduate study. To apply for any of these programs, students will need to complete and submit the Free Application for Federal Student Aid (FAFSA). Some of these programs have submission deadlines that differ from federal programs. For complete information, Pennsylvania students can visit [www.pheaa.org/specialprograms](http://www.pheaa.org/specialprograms).

**Private Scholarships**—Various service clubs, organizations, churches, schools, and industries offer scholarships to students. High school guidance offices, libraries, and hometown newspapers are often excellent sources for information concerning private scholarships. The Financial Aid office website provides a listing of various scholarship websites that will enable students to conduct searches on their own and to apply for these scholarships online. For complete information, students can visit [www.iup.edu/scholarships](http://www.iup.edu/scholarships).

**ROTC Scholarships**—The Reserve Officers’ Training Corps (ROTC) offers many different types of scholarships. High school students can apply for the ROTC four-year or three-year Advanced Designee scholarships before attending college. College students can apply for a 3.5-year, 3-year, 2.5-year, or 2-year scholarship. ROTC scholarships pay for tuition and fees, a book allowance, and a monthly stipend (while school is in session). Scholarships are competitive and depend on the students’ academic major. Interested and eligible high school students may apply online at [www.goarmy.com/rotc](http://www.goarmy.com/rotc). College students may obtain additional information and eligibility criteria by contacting the ROTC staff members in Pierce Hall at IUP or by calling 800-ROTC.

**Other Resources**

**Athletic Grants-in-Aid**—IUP is an NCAA Division II institution. Athletic Grants-in-Aid awards are available in accordance with NCAA rules and regulations at the discretion of the respective head coach. Please see [www.iupathletics.com](http://www.iupathletics.com) for more information regarding sports that are offered.

**Community Assistants**—Upperclass students and freshmen at the end of their first year may apply to become community assistants at IUP. Students earn a room and board waiver, as well as a small stipend, by working as community assistants in IUP residence halls. Application timelines and deadlines are advertised in the [Penn](http://www.penn) and posted in the residence halls and other locations around campus, including the Office of Housing, Residential Living, and Dining website. Community assistants are selected on the basis of leadership, interpersonal skills, and willingness and ability to serve as role models. Community assistants must have and maintain a 2.5 GPA. For further information, please contact the Office of Housing, Residential Living, and Dining, G37 Ruddock Hall, 1099 Maple Street, IUP, Indiana, PA 15705, 724-357-2696.

**Office of Vocational Rehabilitation Assistance (OVR)**—Students who have physical or learning disabilities may receive educational benefits through the OVR. To be eligible, students must satisfy the physical and financial requirements of the agency. For further information, students should contact their county offices of vocational rehabilitation.

**Pennsylvania National Guard Educational Assistance Program (EAP)**—Together with the Pennsylvania Department of Military and Veterans Affairs, PHEAA administers this tuition assistance program for students who enter into a service commitment with the Pennsylvania National Guard for a period of six years. Eligible students who join the Pennsylvania Army/Air National Guard may be eligible for a state EAP grant up to the amount of the PASSHE full-time tuition rate. This award may be reduced for students who also are receiving Federal Tuition Assistance benefits and/ or benefits from Chapter 33 of the GI Bill. Currently eligible students may receive ten semesters of EAP. To apply for EPA and/or receive the most cur
rent information regarding this benefit, the military member should contact
the readiness noncommissioned officer at his/her unit. Additional informa-
tion may also be obtained by calling 717-861-8626 or 800-GO-GUARD.

University Refund Advance

The Financial Aid office, in conjunction with the Student Cooperative
Association, administers the University Refund Advance on behalf of IUP
students. Funds are available only to students who are expecting a financial
aid refund that is yet to be disbursed. The maximum award is $500, with
repayment to be made in 60 days. No interest will be charged for these
advances. Awards will be made to meet educational expenses only. See the
Financial Aid office for the University Refund Advance application and
additional information.

The University Refund Advance encompasses the following individual loan
accounts:

• Jennie E. Ackerman Loan Fund
• Robert Bellis Loan Fund
• Mary Edna Flegel Loan Fund
• Colette Cromer Gershman Loan Fund
• Margaret Flegel Harte Loan Fund
• Suzanne Marshall Hartman Loan Fund
• John Hays Memorial Fund
• Oliver W. Helmrich Memorial Loan Fund
• William Henzelmann Memorial Fund
• Mary Anne Kollessar Loan Fund
• Jane E. Leonard Memorial Loan Fund
• Mack Loan Fund
• Rusty Preissenderfer Memorial Loan Fund
• Flossie Wagner Sanford Student Loan Fund
• Varsity I Loan Fund
• Norah Zink Loan Fund

Military and Veterans Resource Center (MVRC)

E-Mail: iup-mrc@iup.edu; Telephone: 724-357-3008

The Military and Veterans Resource Center (MVRC) certifies enrollment
for undergraduate and graduate students who are eligible for veterans'
education benefits. Veterans, reservists, spouses, and children of deceased
or disabled veterans should contact the MVRC before enrollment. Veteran
dependents and reservists must submit the following:

1. Certificate of Eligibility
2. Certification Request Form

Twelve credits are required to be considered a full-time undergraduate by
the Veterans Administration. The minimum full-time requirement for a
graduate student is nine credits. In addition to regular sources of financial
aid, veterans and dependents of veterans may be eligible for VA education
benefits. Benefit programs may be reviewed at www.gibill.va.gov.

Out-of-state students may qualify for in-state tuition rates if they meet the
criteria defined in the Choice Act of 2014. If you have questions about your
eligibility, contact the Military and Veterans Resource Center (MVRC).

The MVRC serves as a one-stop information and referral site to help stu-
dents transition to college life and achieve their academic goals by provid-
ing military-friendly programs and services to IUP’s veteran and military-
affiliated students. The MVRC is designed to serve student veterans by
helping them to find the guidance and information they need to complete
their educational goals and by enhancing the sense of community they share
with other students in similar circumstances.

For further information, veterans should contact the Director, MVRC, 101
Pratt Hall, Indiana, PA 15705, 724-357-3008. Email may be sent to veter-
ans-affairs@iup.edu. Veterans may also review the IUP veterans website at
www.iup.edu/veterans.

Title IV Satisfactory Academic Progress Policy

“To in order to receive Student Financial Aid under the programs authorized
by Title IV of the Higher Education Act, as amended, a student must be main-
taining satisfactory academic progress in the course of study that he/she
is pursuing.” (Federal Register/Volume 48, No. 195/Thursday, October 6,
1983.) Students must be in compliance with both the university’s Academic
Standards Policy and the Financial Aid Sufficient Progress Policy (SAP) to
demonstrate satisfactory progress.

These Title IV programs include Federal Pell Grant, Federal Work Study
Program, Federal Supplemental Educational Opportunity Grant (FSEOG),
Federal Direct Loans, and Federal Parent PLUS Loan.

A student who meets the university’s Academic Standards Policy, but who
does not meet the Financial Aid SAP qualitative and quantitative standards,
may continue in university registration, but will not be eligible to participate
in the Federal Title IV aid programs. This happens because the Financial
Aid SAP Policy is stricter than the university’s Academic Standards Policy
A full statement of requirements for Satisfactory Academic Progress for
Title IV Federal Student Aid is available at the Financial Aid office and on
the website.

Title IV Financial Aid Satisfactory Academic Progress Policy

The Financial Aid Sufficient Progress Policy applies to undergraduate and
graduate students enrolled in the university.

A. Financial Aid Satisfactory Academic Progress (SAP): To be consid-
ered in good financial aid SAP standing, undergraduate students must main-
tain a 2.0 CGPA, must successfully complete (pass) at least 67 percent of
the cumulative number of their registered credits at IUP, and must complete
depth’s degree requirements within an established time frame of no longer
150 percent of the published length of the program.

Students’ SAP is measured for each academic year at the end of the spring
semester (corresponding with the end of the spring payment period), after
grade processing has been completed. This measurement determines if
students have met the required CGPA, have passed a sufficient percentage
of credits, and time frame completion in order to be eligible for Title IV
funding in future terms.

Students are notified of their financial aid suspension status via USPS direct
mail when a completed Free Application for Federal Student Aid (FAFSA)
for the upcoming academic year is on file in the Financial Aid office. Stu-
dents are also able to review their SAP status on their MyIUP account.

B. Financial Aid Suspension: When students who do not meet CGPA and
have not successfully passed the sufficient number of credits, all Title IV
aid for that student will be suspended beginning with the next semester of
attendance.

A student who is in this financial aid suspension status, however, will be
reviewed at the end of the next semester of attendance (payment period)
to evaluate if the percent of progress and CGPA are met. If the percent of
progress and CGPA are achieved, then the student’s Title IV financial aid
suspension will be rescinded beginning with the next semester of enroll-
ment.

C. Time Frame for Degree Completion: In addition to meeting the 67
percent of progress and CGPA requirements, students must complete their
degree requirements within an established time frame of no longer
150 percent of the published length of the program. Since enrollment status
may vary from term to term, the maximum period for degree completion
is measured in terms of credits attempted at IUP plus any transfer credits.
Part-time and full-time students are treated equally under this policy. For
example, undergraduates should complete the requirements for a bachelor’s
degree at the point of having 180 attempted credits at IUP (150 percent of
the published length of the program).

D. Appeal Process: Students who have special circumstances, beyond their
control (such as medical emergencies or death of a family member), which
cause them to not make SAP, may submit a written appeal to the Financial
Aid Appeals Committee for consideration of reinstatement of Title IV aid
eligibility. However, a special circumstance does not guarantee an exception
to the financial aid SAP regulations. Students who exceed the 150 percent
credit guidelines due to change of major or double majors may also submit
a written appeal.
The written appeal must specifically outline the reason(s) for the progress deficiency and identify what has changed to allow the student to make SAP by the next evaluation. The appeal must contain sufficient documentation to substantiate the reason cited for lack of progress for instance, supporting documentation from a healthcare provider that clarifies the student’s health situation, an obituary, and/or letters of support from relevant professional individuals (not related to the student) are all acceptable forms of documentation. Letters from third party individuals must be on letterhead and contain a hand-written signature. Electronic signatures are not accepted.

For students who do not appeal or who are denied an appeal for a semester, an appeal for reinstatement of Title IV aid for a subsequent semester will be accepted for review.

After reviewing the written appeal of a student in financial aid suspension, the Financial Aid Appeals Committee may decide to reinstate Title IV financial aid eligibility for specific periods of the next financial aid award year.

E. Reinstatement of Title IV Aid Eligibility: In order for students to reestablish eligibility to receive Title IV financial aid, one of the following must occur:

1. Students must meet the minimum requirements for SAP (at least 67 percent cumulative percent of progress, meet the CGPA requirement (2.0 UG or 3.0 GR), and the time frame for degree completion). OR
2. The Financial Aid Appeals Committee must approve the student’s written appeal (based on documented circumstances).

F. Treatment of Transfer Credits, Audits, Incompletes, and Other Grades:

1. Transfer Credits: All transfer credits that students transfer into IUP are taken into consideration as part of their attempted and passed credits for purposes of measuring SAP percent of progress as well as time frame for degree completion. Non-accepted transfer credits will not count towards measuring pace nor timeframe for degree completion.
2. Audits, “S,” and “U” Grades: Because course audits, “S,” and “U” grades carry no credits, they are not reviewed or counted for SAP progress purposes.
3. Incompletes: Designations of “I,” “L,” “R,” and “*” are treated as credits attempted/zero credits passed, thus have no effect on CGPA. However, these designations are treated as non-completed (attempted) credits and have an impact in the calculation of the percent of progress measure and time frame for degree completion. (Note: The “*” is an administrative symbol indicating that a grade was not submitted at the time of grade processing.)
4. “F” Repeat with Replacement: An “F” repeat with replacement is treated as credits attempted/credits passed/with the quality points (QP) of the new grade replacing the 0.00 QP of the original “F” grade. An “F” repeat has a positive effect on the CGPA, but represents an additional number of credits attempted in regard to the percent of progress and time frame for degree completion measurements.
5. “D” Repeat with Replacement: Repeated classes that are “D” replacements to a student’s record are treated as credits attempted/zero credits passed/with the quality points (QP) of the new grade replacing the 1.00 QP of the “D” grade. A “D” repeat with replacement may improve a student’s CGPA, but represents an additional number of credits attempted in regard to the percent of progress and time frame for degree completion measurements.
6. Repeats with Averaging: Courses that are repeated with averaging count as credits attempted/credits passed with the quality points for the class averaged into the CGPA. The maximum time frame for degree completion may be impacted by repeat with averaging classes.
7. Withdrawals: Designations of “W,” “Q,” “WP,” or “WF” are treated as registered credits/zero credits passed/no effect on CGPA. Any type of “W” designation is treated as noncompleted (attempted) credits in the calculation of percent of progress and time frame for degree completion measurements.
8. “N” Grades: An “N” grade represents a non-participation failing grade. This counts as credits attempted/zero passed and zero QP will be averaged into determine GPA. This grade is treated the same as an “F” grade.
9. Pass/Fail Grades: Pass grades are treated as registered credits/credits passed/no effect on GPA. Fail grades are treated as registered credits/zero credits passed/with zero QP averaged into the calculation of GPA.
10. Noncredit Courses: Noncredit classes, such as those with Continuing Education Units (CEUs), are not used in measuring sufficient progress, since these classes cannot be applied toward degree requirements and no financial aid may be received for enrollment.
11. Institutional Credits: Institutional credits are counted as registered credits/credits completed. The QP for the course is not averaged into the student’s overall GPA.
12. Fresh Start Program/Canceled Semester: Students readmitted under the Fresh Start Program, or who have had a canceled semester, must still meet the financial aid qualitative and quantitative SAP requirements (using all previously enrolled semester data). Federal regulations do not permit the financial aid office staff to remove or ignore any academic statistics.

Unofficial Withdrawal

Federal Title IV student aid recipients who earn a 0.00 GPA at the end of a semester in which they receive federal student aid will be reviewed to determine whether they actually completed the semester. Faculty members will be required to provide information to the Financial Aid Office regarding the students’ last date of academically related activity. Based on that date, federal student aid may need to be adjusted.
Student Programs and Services

The services and programs listed in this section are the result of collaborative efforts by student affairs professionals and faculty members to offer the IUP student a unique and fulfilling undergraduate and graduate student experience.

Student Affairs Division Areas
Website: www.iup.edu/studentaffairs; E-mail: iup-hawks@iup.edu

Through collaboration focused on student learning and success, IUP’s Student Affairs Division offers student-centered services, programs, and experiences which promote excellence, stimulate discovery, celebrate diversity, and motivate students’ development, involvement, and personal and professional achievement.

Vice President for Student Affairs: Thomas C. Segar
Associate Vice President for Student Affairs for Living-Learning and Well-Being: John G. Makara
Associate Vice President for Student Affairs for University and Community Engagement: Kathleen R. Linder
Department for Disability Access and Advising/Disability Support/General Advising: Robert W. Kanick, Suzanne Jeffries, and Marian Stockdale
Activity Fee and Student Organization Funding: Robert W. Kanick, Suzanne Jeffries, and Marian Stockdale
Alcohol, Tobacco, Other Drugs: Ann E. Sesti
Assessment: Catherine M. Dugan, Kathleen R. Linder
Campus Recreation and Intramurals: Brandyn P. Ott
Club Sports: Emily A. Briggs
Communications: Caitlin Aiello
Communications and Program Coordination: Brianna N. Drylie
Co-op Store: Timothy L. Sharbaugh
Counseling Center: Jessica E. Miller
Dining Services: Valerie Baroni
Greek Life and Student Engagement: Elizabeth E. Sarneso
Haven Project: Jessica E. Miller
Health and Wellness Promotion: Sara C. Dillon
Health Service: Melissa L. Dick
Housing Auxiliary Services: Valerie Baroni
Housing, Residential Living, and Dining: Sondra Dennison
HUB Complex: Michael J. Carnovale
HUB Room Reservations: Robert J. Smith
Intercollegiate Athletics: Stephen P. Roach
Intramurals: Michael J. Carnovale
LGBTQIA: Theodore M. Cogar
Military and Veterans Resource Center: Cory Shay
Multicultural Affairs and Student Success: Leslie L. Coates
Multicultural Student Leadership and Engagement: Theodore G. Turner
Penn, The: Joseph J. Lawley
Residential Living: Malaika M. Turner
Sexual Violence Prevention: Susan Graham
STATIC and Break Buses: Zachary N. Clark
Student Conduct: Theodore M. Cogar, Adam M. Jones
Student Cooperative Association: Louis F. Garzarelli
Student Leadership and New Student Success: Kevin Foster
Technology: Patrick J. McDevitt

Alcohol, Tobacco, Other Drugs
Website: www.iup.edu/atod; Telephone: 724-357-1265

The Alcohol, Tobacco, Other Drugs (ATOD) Program provides leadership to the university community in reducing alcohol, tobacco, and other drug use and related negative consequences. The program administers and supports prevention and intervention services that encourage students to make healthy lifestyle decisions to improve their overall well-being and enhance their academic and personal success. ATOD is located in the Suites on Maple East.

Athletics
Website: www.iupathletics.com

Varsity Sports: The university offers 19 varsity sports for men and women. It competes at the NCAA Division II level in the Pennsylvania State Athletic Conference.

Fall sports include men’s golf, men’s and women’s cross country, field hockey, football, women’s soccer, women’s tennis, and women’s volleyball. Winter sports include men’s and women’s basketball, men’s and women’s swimming, and men’s and women’s indoor track. Spring sports include baseball, men’s golf, women’s lacrosse, softball, women’s tennis, and men’s and women’s track and field.

Club Sports: Club Sports offers students a unique opportunity to engage in a pleasurable, competitive athletic endeavor by taking part in the leadership, responsibility, and decision-making process of club activities. The Athletic Department provides the professional guidance, facility support, and administrative framework under which the clubs function. Each club is a recognized organization.

The Counseling Center
Website: www.iup.edu/counselingcenter; Telephone: 724-357-2621
Website: www.iup.edu/haven; Prevention/Education: 724-357-3947

The Counseling Center facilitates personal and emotional growth of students by offering confidential short-term counseling and consultation on individual and small-group bases. It operates the Haven Project (see below) addressing sexual violence education, prevention, and intervention.

The center also provides educational programs and workshops on a variety of topics, including stress management, eating disorders, grief, and healthy relationships.

The center serves as a resource to the university for mental health and psycho-educational concerns. Individual consultation to faculty, staff, families, and friends of students who may have concerns about a student is an integral part of the Counseling Center’s mission.

In addition to helping students deal with adjustment, anxiety, stress, depression, and other common concerns, the Counseling Center provides specialty counseling in two identified areas. The center provides short-term treatment and assessment for students dealing with substance use and abuse as well as counseling and support for students who have experienced interpersonal violence (the Haven Project). Walk-in hours are available:

Haven Project: The Haven Project provides counseling services and assists with accommodations for students who experience sexual violence, as well as prevention intervention. It is a service within the Counseling Center.

Counseling Center services are provided by faculty members who are licensed psychologists and by clinical associates/clinical trainees who are advanced graduate students in clinical psychology doctoral program and the clinical mental health counseling program. Graduate clinical trainees work under the supervision of the licensed psychologists.

Services at the center are paid for through the Wellness Fee. For more information, contact the center at the telephone number or website listed above and view the video, or visit the Suites on Maple East, G31.

Department for Disability Access and Advising
Website: www.iup.edu/disabilitysupport
E-mail: disability-access@iup.edu
Phone: 724-357-4067

Disability Access and Advising (D2A2) is the primary agent for the provision of access for IUP students with disabilities (including physical, psychological, emotional, learning, and other disabilities.) Faculty and staff members within the office serve to ensure IUP’s program access compliance with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA). Students with disabilities who seek disability-relat
ed accommodations and services must register with the D2A2 office. With the proper documentation and requests, accommodations and services provided may include, but are not limited to, assistance with notifying faculty of approved accommodations; testing accommodations; notetaking; alternate text; early registration; assistance in locating accessible housing; limited adapted equipment loan; liaison with faculty, OVR, and BVS, or other service agencies; advising, consultation and academic and career counseling related to students’ disabilities; assistance with seeking supports such as tutoring or financial aid; and referrals to related services departments or agencies. Further information may be obtained in 216 Pratt Hall, or www.iup.edu/disabilitysupport.

**Health and Well-Being (Rhonda H. Luckey Center for)**

**Website:** www.iup.edu/chwb; **Telephone:** 724-357-WELL (1358)

IUP’s Rhonda H. Luckey Center for Health and Well-Being provides wellness-related student services. The Health Service, Counseling Center; Haven; Health Wellness Promotion, Nutrition Connection; and the Alcohol, Tobacco, and Other Drugs program are located in the center in the Suites on Maple East. Most services within the center are funded by the Indiana campus students’ wellness fees. Some services may have an additional fee.

**Health and Wellness Promotion**

**Website:** www.iup.edu/health-wellness; **Telephone:** 724-357-4799

**E-Mail:** Health-Wellness@iup.edu

Health and Wellness Promotion provides educational programs and services that encourage students to make healthy lifestyle choices. Common issues addressed through this program include sexual health, HIV/AIDS, and body image. Health and Wellness Promotion provides presentations in classrooms, residence halls, and student organization meetings. Students who need assistance in accessing health and human services can receive help by contacting Health and Wellness Promotion at the telephone number or website listed above.

**Health Service**

**Website:** www.iup.edu/healthservice; **Telephone:** 724-357-2550

**E-Mail:** health-inquiry@iup.edu

Health Service provides routine health care to students on days that classes are in session. Health Service is staffed by physicians, nurse practitioners, nurses, and clerical staff. It operates on an appointment system with walk-in service available. For emergency care, the local hospital emergency room is available 24/7. (Hospital services are not covered by the Wellness Fee.)

Health Service provides some minor surgical procedures, some laboratory testing, allergy/medication, injections, suturing, IV hydration, physicals, wound care, gynecological exams, contraceptive consults, as well as basic illness and injury care. Health Service has a self-care cold and wound center that provides over-the-counter medication and wound supplies for students. Flu shots, Tb test clinics, and Meningitis vaccines are offered at no cost to students. The Health Service van provides transportation to pharmacies and local medical facilities for scheduled appointments during regular office hours.

IUP requires documentation of the following vaccines: measles, mumps, rubella (MMR), tetanus-toxoid, diphtheria and pertussis (Tdap), polio, and meningitis. Recommended vaccines include varicella, Gardasil, Hepatitis A, and Hepatitis B. Tetanus-toxoid diphtheria should be updated every ten years. Students living in university-owned residence halls and apartments are required to have the vaccine for meningococcal meningitis or to sign a waiver stating that they do not wish to have the vaccination.

The Health Service does not bill insurance companies for services; however, a student can receive a receipt for each visit that can be used to submit the bill to his/her insurance company. It is highly recommended that students who do not have an insurance plan consider purchasing coverage before arriving at IUP. Please visit the website www.healthcare.gov for more information on insurance coverage.

**Nutrition Connection**

**Website:** www.iup.edu/foodnutrition/nutritionconnection

**Telephone:** 724-357-4797

Nutrition Connection services are sponsored by the Department of Food and Nutrition with support from the Center for Health and Well-Being in the Suites on Maple East and the Student Cooperative Association.

The purpose of Nutrition Connection is to provide preprofessional training in nutrition intervention to junior and senior dietetics majors and to provide IUP students with information about nutrition for a variety of personal concerns. The overall goal of Nutrition Connection is to promote healthy eating and body weight with nutrition recommendations tailored to meet individual needs, preferences, and goals.

Nutrition Connection offers nutrition assessment and intervention through individual counseling. Services are provided by students who have completed course work in wellness and clinical nutrition and who are currently enrolled in FDNT 463 Nutrition Counseling. A registered dietitian and IUP faculty member supervise all of the services. Services are also monitored by graduate students majoring in nutrition. This service is available in the fall and spring semesters.

**Housing, Residential Living, and Dining Information**

**Website:** www.iup.edu/housing;
**E-mail:** iup-housing@iup.edu or iup-dining@iup.edu

**Residential Living:** IUP is a residential campus. On-campus housing is supervised by professional residence directors educated in student development or counseling or by graduate assistants enrolled in the Student Affairs in Higher Education graduate program.

It is the policy of IUP to offer full, equal, and nondiscriminatory assistance to all students without regard to their race, color, religion, national origin, gender, ancestry, sexual orientation, or physical ability in both the placement in university housing and the furnishing of facilities and services in relation to that housing.

Specific programs and services offered within the residence halls provide a residential program that supports the academic mission of the university and fosters the development of a community in which the rights and responsibilities of each person are clearly defined and respected.

Rooms are available to both undergraduate and graduate students enrolled at IUP. Each year the university reviews its housing policies and revises them according to needs for the following year. The Office of Housing, Residential Living, and Dining is located in Ruddock Hall, 724-357-2696.

In an effort to make residence hall living more responsive to individual needs, the university offers a variety of living arrangements. Students should consider these options carefully and select the one with which they would feel most comfortable.

**Residency Requirement:** A two-semester residency requirement was implemented beginning in fall 2006 to support student academic success, enhance student development, and assist students in making a smooth transition to university life. Residency requirement: All full-time, first-time freshmen attending the Indiana campus are required to reside on campus for two semesters. Students transferring from an IUP regional campus and attending the Indiana campus for the first time are required to live on campus for at least two semesters. After at least one semester and attainment of 60 or more credits, regional campus transfer students will have fulfilled the Indiana campus residency requirement. Students transferring to the IUP Indiana campus from other colleges or universities and international students with fewer than 60 credits are required to live on campus until they attain 60 credits. Exceptions to this requirement include students who (a) commute no more than 35 miles from the home of their parents or guardian, (b) are married, (c) have dependent children living with them, (d) are veterans of military service, or (e) are 21 years of age or older. Students requesting an exemption to IUP’s residency requirement must complete a Residency Requirement Exemption Request form, available from the Office of Housing, Residential Living, and Dining, Ruddock Hall.

**Residence Hall Application:** First-year and transfer students will be offered residence hall license agreements soon after they remit the $150
tuition prepayment required to secure a place in the incoming class. The Online Housing Agreement should be submitted as soon as possible. Rooms will be assigned on a first-come, first-served basis, and students will be sent an e-mail confirmation immediately after submitting the agreement.

Continuing students may contract for university housing for the following academic year according to the process published and posted in October. Students being readmitted or returning from student teaching or study abroad programs should contact the office.

Dining Services: IUP offers seven meal plans, six of which are available to residence hall students. See the Finance section of this catalog for meal plans and fees. For more information, contact iup-dining@iup.edu or go online to www.iup.edu/dining.

Residence Hall Association (RHA): The RHA represents all students living in university housing. The executive body of RHA is composed of elected representatives from each residence hall. The purpose of RHA is to provide educational, social, and community service programs for residents; to collect information on various aspects of residence hall life; and to assist in formulating housing policies and procedures. All residence hall students are encouraged to participate in RHA and may inquire at their residence hall office for involvement opportunities.

LGBTQIA Support
E-Mail: LGBTQIA-Support@iup.edu; Telephone: 724-357-1264

LGBTQIA Support provides leadership through Ally Trainings for the university community in support of all students, faculty, and staff. The area works to create a welcoming and supportive campus climate for all LGBTQIA individuals. Lavender Graduation is held annually each spring for recognition of student accomplishments and presentation of lavender colored cords to wear in the official university graduation ceremonies. Consultation is available for classes, organizations, and when looking for additional information related to LGBTQIA identity, tools for involvement in diversity advocacy work, or developing global awareness.

Military and Veterans Resource Center (MVRC)
Website: www.iup.edu/veterans/resource-center
E-Mail: iup-mvrc@iup.edu; Telephone: 724-357-3008

The Military and Veterans Resource Center (MVRC) serves as a one-stop information and referral site to help students transition to college life and achieve their academic goals by providing military-friendly programs and services to IUP’s veteran and military-affiliated students. The MVRC is designed to serve student veterans by helping them to find the guidance and information they need to complete their educational goals and by enhancing the sense of community they share with other students in similar circumstances.

The MVRC Office certifies enrollment for undergraduate and graduate students who are eligible for veterans’ education benefits. Veterans, reservists, spouses, and children of deceased or disabled veterans should contact the MVRC before enrollment. Veteran dependents and reservists must submit the following: (1) Certificate of Eligibility, and (2) Certification Request Form.

Twelve credits are required to be considered a full-time undergraduate by the Veterans Administration. The minimum full-time requirement for a graduate student is nine credits. In addition to regular sources of financial aid, veterans and dependents of veterans may be eligible for VA education benefits. Benefit programs may be reviewed at www.gibill.va.gov.

Out-of-state students may qualify for in-state tuition rates if they meet the criteria defined in the Choice Act of 2014. If you have questions about your eligibility, contact the MVRC.

For further information, veterans should contact the Director, MVRC, 101 Pratt Hall, Indiana, PA 15705, 724-357-3008. Email may be sent to veterans-affairs@iup.edu. Veterans may also review the IUP veterans website at www.iup.edu/veterans.

Indiana University of Pennsylvania is dedicated to engaging students in an intellectually challenging, culturally enriching, and contemporary diverse environment. The Office of Student Conduct believes that an important part of that engagement comes when a student is faced with the potential consequences of their behavior. As an office, we strive to serve the whole student by holding them accountable for their choices, encouraging them to take ownership for their role in our processes, assisting them in discovering potentially harmful behaviors, determining an appropriate response to the alleged incident, and connecting the student to constructive resources promoting future development. The goal of the office is to empower every student to work toward a successful completion to their time at Indiana University of Pennsylvania. The Office of Student Conduct maintains the ability to remain student-centered in its approach by not being compelled to specific outcomes of adjudication. Conduct hearings shall be conducted in such a manner to ensure the accused student has had a fair and reasonable opportunity to answer, explain, and defend against the charges.

Indiana University of Pennsylvania represents an academic community that is part of the larger global community. As such, the Office of Student Conduct facilitates the enforcement of university policy in order to protect individual students, the residential and academic community, and the community at large. While the office is primarily concerned with addressing behavior that takes place on campus, the office reserves the right to address any behavior which is considered to have, or potentially has, a direct detrimental impact on the university’s educational functions, its community members, or the local municipalities whether that behavior takes place on or off campus.

The University fully recognizes the right of all students to seek knowledge, debate, and freely express their ideas. Discourse and disagreement are fundamental components of any academic endeavor, and students will not be subject to disciplinary action for their lawful expression of ideas. A student retains the rights, protection, guarantees, and responsibilities which are held by all citizens. The University conduct system does not eclipse, in intention or application, the constitutional rights and guarantees of students.

Students may be adjudicated for engaging in conduct that violates federal, state, or local law whether such conduct takes place on campus or off campus or whether or not civil or criminal penalties may also be imposed for such conduct. A violation of this policy is not predicated upon a final determination by a court of law. In other words, it is not necessary for a student to have been actually found to have violated a federal, state, or local law by a court of law in order to be disciplined under the Student Code of Conduct. It is only necessary that a student be found to have engaged in such prohibited acts by processes under the Student Code of Conduct. It is specifically noted here that the standard of proof in the Student Code of Conduct process is distinct and different from what is applied in criminal federal, state, and local law violations. Any decision issued must be based upon evidence sufficient to make a reasonable person believe that a fact sought to be proved is more likely true than not. A charge alleging a violation of a federal, state, or local law shall identify the federal, state, or local law violated.

University-issued electronic mail email is the official means of communication between the Office of Student Conduct and students on all matters pertaining to the Student Conduct System.

Student Cooperative Association
Website: www.coop.iup.edu

The Student Co-op has played an extremely valuable and significant role in the co-curricular life of the university since its founding in 1933. All students are members, and IUP faculty, staff, and IUP alumni who pay the student activity fee become members of the association. Virtually all campus-wide activities, outside the instructional program, are sponsored entirely or in-part by the Student Co-op. The student’s I-Card will admit them or her, free of charge, or at a reduced fee, to university social, cultural, and athletic events, as well as each IndiGO bus routes.
The Student Co-op operates the Hadley Union Building (HUB) complex on behalf of the university community. Inside the HUB complex, you will find the Co-op Store (IUP’s official campus bookstore), the HUB Fitness Center and Gymnasium, the HUB Computer Lab, Group Study Room, Hawk HUB Food Court, Fast Times Screen Printing, and PNC Bank. In addition, students and visitors can visit the HUB Information Desk to learn more about the IUP campus, relax, study, or socialize in one of the many lounge areas, or attend a meeting or event in the reservable spaces.

The Co-op Store: The Co-op Store is a not-for-profit entity that provides financial support to the Student Cooperative Association. Textbooks for IUP courses are available in many different options including new & used textbooks, rental book options, course packets, loose-leaf textbooks, e-Books and passcodes. The store has partnered with the university to provide students with their own individual booklist through their MyIUP page. The store has invested in comparison software to help provide students with low-cost options for course materials from a number of additional vendor partners. The Co-op Store has continued their partnership with the university in providing a Financial Aid module to allow for students to purchase their course requirements to coincide with the beginning of each semester. The Supply and Art Departments provide additional value in partnering with the faculty for required course materials, as well as, everyday classroom needs. Indiana University of Pennsylvania memorabilia and Crimson Hawk gear is available throughout the year at the store and online to help support collegiate spirit. Other categories available at The Co-op Store include: stationery, sundries, electronics, computers, luggage, backpacks, a copy center, dorm supplies, and other needs for campus life. Please feel free to visit us online at www.iupstore.com or call us at 1-800-537-7916 with any questions.

The Co-op Recreational Park: The Co-op Recreational Park is comprised of 270 beautiful acres in White Township. Included are a lodge building that will accommodate groups of up to 200 people, a ski hut, a nationally-ranked disc golf course, a 5K par course, hiking and biking trails, a picnic shelter, an archery range, two softball fields, and a catch-and-release fishing pond. The Co-op Recreational Park is comprised of 270 beautiful acres in White Township. Included are a lodge building that will accommodate groups of up to 200 people, a ski hut, a nationally-ranked disc golf course, a 5K par course, hiking and biking trails, a picnic shelter, an archery range, two softball fields, and a catch-and-release fishing pond.

Campus Recreation: Additionally, the Student Co-op is the home of the university’s Campus Recreation program, with its state-of-the-art Fitness Center, featuring both cardiovascular and strength-training equipment, and Gymnasium, featuring three full-sized multi-use courts and an elevated running track. The Campus Recreation program also provides open recreation, intramural sports, and Les Mills group fitness classes.

STATIC: The Student Co-op also sponsors the Student Activity Committee (STATIC), which is IUP’s official student-led, student-centered campus programming organization. STATIC brings the very best entertainment to campus, including concerts, comedians, speakers, films, trips, novelty and cultural events, and much more. Any student can get involved with STATIC or attend a STATIC event by visiting static.coop.iup.edu, STATIC’s social media pages (@STATICatIUP), or its office in the HUB, room 215-216, in the Student Office Suite between the HUB Computer Lab and Fast Times Screen Printing. STATIC also sponsors the university’s break bus service, which provides students a low-cost option to return home in central and eastern Pennsylvania during Thanksgiving, Winter, and Spring breaks. For more information, visit www.coop.iup.edu/student-services/break-buses/.

The Penn: The Penn, IUP’s campus newspaper, is electronically published twice per week at www.thepenn.org, during the fall and spring semesters. The Penn is published by students wishing to gain practical experience in journalism and public relations, business, advertising and marketing, and graphic design. Student are encouraged to join the staff of The Penn, regardless of their chosen majors.

Multicultural Student Leadership and Engagement (Center for) (MCSLE)

Website: www.iup.edu/mcsle

MCSLE provides inclusive student services and programs that maximize potential collaboration between diverse student populations and recognized student organizations. The center coordinates and supports programming that is wide-ranging and capitalizes on shared resources for the benefit of serving all students. MCSLE encourages mindful collaboration with an emphasis on the importance of inclusion in multicultural programs, allowing for more purposeful planning of events through a unified calendar.

MCSLE provides opportunities for students to develop skills that enhance lifelong problem-solving, relationship-building, communication, and decision-making abilities in our complex, diverse society. Staff members encourage students to forge positive relationships with their peers, develop and enhance an appreciation for diversity, and to participate in values-based recognized student organizations, university traditions, and fraternal experiences. The center is located at 128 Pratt Hall.

Multicultural Affairs & Student Success (MASS): The MASS office supports the mission of IUP by providing leadership development opportunities for students and recognized student organizations. These opportunities include co-curricular activities, student engagement experience, leadership workshops, and more. Student Leadership also creates an environment that promotes positive growth and development of students. This is done by facilitating a productive learning experience that challenges students to think outside the box and examine their environment.

Student Engagement: Through involvement in campus programs and activities, recognized student organizations, service, and philanthropic experiences, students have the opportunity to contribute positively to the university and Indiana communities. These engagement experiences provide meaning and value, promote resilience and understanding beyond self, and create a sense of belonging or “home.”

Fraternity and Sorority Life: IUP recognizes over 30 fraternities and sororities, including eight culturally based Greek letter organizations. IUP Fraternity and Sorority Life provides a quality undergraduate opportunity that supports academic engagement, cognitive and intellectual development, ethical leadership, cross-cultural competency, civic responsibility, and accountability among all. We encourage students to forge positive relationships with their peers and alumni, cultivate responsibility among the campus and local community, and advance their commitment to the mission and vision of the university and their organization.

Recognized Student Organizations: There are currently almost 300 recognized student organizations, including fraternity and sorority life, academic clubs, social and honorary fraternities and sororities, club sports, and many others. All student organizations are advised by IUP faculty or staff members. Students can go to Crimson Connect to learn about different recognized student organizations, campus programs, events, and other opportunities to get involved at IUP. Crimson Connect helps recognized student organizations and university programs promote their organizations, events, and involvement. In the event that students do not find a club or organization of interest, they are encouraged to initiate and support new groups that reflect interests not currently represented by existing organizations. This process is coordinated by the Student Government Association. Under the direction of MCSLE, and funded in part by the Student Co-op, many activities are orchestrated by recognized student organizations. These activities provide a significant opportunity for students to become more involved with their campus as well as to experience the growth and personal development that involvement provides.

Six O’Clock Series: The Six O’Clock Series is a series of lectures and presentations held on most Monday evenings at 6:00 pm during the academic year that are designed to address current issues and approach topics.
from varying perspectives. The series strives to encourage critical thinking and understanding of multiple perspectives. Approximately 3,500 students participate in the series each year.

**Student Government Association (SGA):** The SGA is the representative and recognized voice of IUP’s student body. The SGA president and executive board officer are elected at large in a general election by undergraduate students each spring. A primary responsibility of the SGA lies with the student members of various university advisory bodies, including the Student Cooperative Association Finance Committee, which allocates funds in support of university activities. Each SGA senator is a representative on the University Senate, the institution’s chief governing body. The SGA meets weekly. Every student enrolled at IUP is considered a member of the SGA, and input is always sought and welcome. For more information, visit SGA at 128 Elkin Hall or contact SGA through CrimsonConnect at https://iup.collegiatelink.net/organization/studentgovernmentassociation.

**Welcome Weekend:** Welcome Weekend occurs as students move onto campus immediately before the beginning of fall classes. Thursday, Friday, Saturday, and Sunday include programs and activities designed to ensure a smooth transition from the home (or other college) environment to IUP’s campus community. The events of Welcome Weekend are open to all incoming students. The Official Welcome to IUP is on Saturday with academic meetings on Sunday.

### Enrollment Management Division

**Website:** www.iup.edu/enrollment

Maintaining a steady enrollment is crucial to the financial health of the university and to maintaining our historic status among the largest universities in Pennsylvania. The Division represent the full continuum of enrollment management, from recruitment, matriculation, retention, and graduation through the pursuit of professional goals.

**Patricia C. McCarthy,** Vice President for Enrollment Management

**Graduate Admissions:** Paula L. Stossel, Assistant Vice President for Enrollment Management and Processing

**Undergraduate Admissions:** Stacy L. Hopkins, Executive Director

**Culinary Admissions:** Enid E. Resenic, Director, Administrative Services

**Career and Professional Development Center:** Tammy P. Manko, Director

**Financial Aid:** Ragan Griffin, Director

#### Admissions

**Website:** www.iup.edu/admissions; **E-mail:** admissions-inquiry@iup.edu

See the Admissions and Registration section of this catalog for information.

#### Financial Aid

**Website:** www.iup.edu/financialaid; **E-mail:** financial-aid@iup.edu

See the Financial Aid section of this catalog for information.

#### Career and Professional Development Center

**Website:** www.iup.edu/career; **E-mail:** career-development@iup.edu

Career services are available to students and alumni. In addition to career education, the primary functions of the office are to arrange for campus interviews, build and maintain a current online database of job and internship opportunities, maintain extensive online resources with employment information, conduct follow-up studies of graduates, and provide general assistance in the career-planning and job-seeking processes. The center provides multiple opportunities for networking and career fair participation, while maintaining an active social media presence with students, alumni, employers, and other stakeholders.

Service Learning offers IUP students curriculum-based, wage-supported, and volunteer opportunities to explore, expand, and fulfill their altruistic interests. The office works closely with nearly 60 Indiana County human service, federal, state, and local government agencies and the Indiana Area School District to place students in volunteer host sites. Visit the office website at www.iup.edu/servicelearning.

**Internships/Cooperative Learning:** Many departments of the university have developed internship/cooperative education programs that allow a student to participate in university-supervised work experiences for variable academic credit. Internships/co-ops are viewed as an integral part of a student’s academic preparation. An internship/co-op gives the student an opportunity to apply theoretical and philosophical tenets of a discipline in a practical job experience related to the student’s academic program.

For general information about university internships and co-ops, consult the experiential learning liaison in the Career and Professional Development Center, 302 Pratt Hall, the student’s department internship/co-op coordinator, or the website www.iup.edu/internships.

#### The following services and policies do not fall under the divisions of Student Affairs or Enrollment Management

### Unmanned Aerial Systems Policy

**Unmanned Aerial Systems (UAS):** Any remotely operated or controlled model aircraft intended to fly within the UAS operated without the possibility of direct human intervention from within or on the aircraft. Includes devices commonly referred to as “drones,” and may also include communications, support, and navigational equipment. FAA regulations apply to all types of UAS regardless of weight or size.

**Definitions**

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**University Property:** Any land, grounds, buildings, or facilities owned, leased, managed or controlled by the university per formal contract or legal agreements. Also included are university owned streets, sidewalks, and bike paths.
**Academic Policies**

**Classification of Students**

To be classified as full-time for the fall, spring, or summer, undergraduate students must be currently enrolled in at least 12 credits. Full-time classification for students enrolled in instructional periods that do not conform to the regularly scheduled academic sessions will be based on the number of enrolled credits during that period of enrollment (e.g., one credit in one week of instruction would equal the minimum full-time certification standard).

For purposes of designating students by class, the following credit classification ranges are used:

- **Freshmen**: Fewer than 30 credits
- **Sophomores**: 30-59 credits
- **Juniors**: 60-89 credits
- **Seniors**: 90 credits or more

Class designations are based on credits earned rather than credits attempted. People holding a degree and working toward a second baccalaureate degree may be classified as seniors.

**Excess Credit Load**

A student who wishes to schedule 18 or more credits must obtain approval from the dean of the college of the student’s major; approval will be predicated on various criteria, such as the student’s demonstrated competencies, total courses, and specific conditions. If approval is granted, the dean will set the credit limit and make the appropriate computer entry.

**Schedule Changes (Drop/Add)**

From the student’s initial registration time for a given semester through the end of the drop/add period, as defined by the academic calendar (www.iup.edu/academiccalendar), a student may modify his/her schedule to the extent that classes are available or permission to register for a closed or restricted section has been granted and entered into MyIUP. Each student is responsible for completing all appropriate transactions in MyIUP to ensure schedule accuracy. Note that, while the department may enter permission to register for a section, the student must complete the actual registration transaction in MyIUP.

**Experiential Learning**

**Internship Experiences**

University-sponsored internships are often an important part of an academic program. Students may apply for an internship if they have completed 60 credits and have at least a 2.0 GPA. Forty hours of supervised internship is equivalent to one academic credit hour. A maximum of 12 credits is applicable to an undergraduate degree program from internship experiences. Internships are available at a variety of venues, such as governmental agencies, businesses, foundations, and other organizations.

Students who are interested in internships must consult with their program’s academic advisor, since they may need to meet additional internship requirements specific to their program, department, or college.

In all cases, an approved agreement between the university and the external organization at which the internship will be performed must be in place before the student can be enrolled for internship credit.

**Cooperative Education (Co-ops)**

Some departments allow students to participate in cooperative education experiences. These experiences provide students with opportunities to gain practical work experiences related to their academic programs. These experiences may be the first contact students have working in their profession. They are often offered for zero credit and are typically unpaid.

Students may apply for co-ops if they have completed 30 credits and have at least a 2.0 GPA. They typically participate in these programs during their sophomore or junior years, often during the summer. Interested students need to consult with their academic advisors concerning the availability and requirements of co-ops within their department.

In all cases, if students decide to register for a co-op course, an approved agreement between the university and the external organization at which the co-op experience will be performed must be in place before the student can enroll in the course.

**Prior Learning and Credit/Exemption Examinations**

There are a variety of examinations through which students may earn college credit or exemptions. Courses for which credits or exemptions are awarded by examination will not be used in the determination of GPAs.

When a student receives credit for a course by examination, the credit will be applied to graduation requirements just as though the course had been taken. A student who passes an examination will be exempt from taking that course in his/her academic program. If a student is granted exemption only (no credits) from a course, he/she may need to take another course to fulfill degree requirements.

Where examinations are not available, portfolio assessment may provide a student with the opportunity to earn university credit for college-level learning gained through work and life experience. Each department will determine the maximum number of credits to be awarded for portfolio assessment for its majors.

No more than one-half of the credits required for a student’s major may be earned through any combination of examinations or portfolio assessment, nor can these credits be applied toward university residency requirements for awarding of degrees.

**Advanced Placement Examinations**

Courses taken by students before college admission under the Advanced Placement Program of the College Entrance Examination Board may be recognized by the award of college credit. Those who earn a score of 3, 4, or 5 in the Advanced Placement Examination may be granted credit toward the number of credits required for graduation. For questions regarding the granting of Advanced Placement Examination credits, consult with Transfer Services in the Admissions office.

**CLEP/DSST Examinations**

Students who have had other opportunities for instruction or who have advanced in a given field may gain credit for a course through the College Level Examination Program (CLEP) offered through University Testing Services. For questions regarding the granting of CLEP examination credits, consult with Transfer Services in the Admissions office.

**International Baccalaureate Examinations**

Courses taken by students before college admission under the International Baccalaureate Program may be recognized by the award of college credit. Those who take and pass the Higher Level examination with a 4 or higher may be granted credit toward the number of credits required for graduation. For questions regarding the granting of International Baccalaureate examination credits, consult with Transfer Services in the Admissions office.

**Departmental Examinations**

In some departments, students have an opportunity to gain exemption or credit through successful completion of comprehensive examinations by requesting from the academic department an exam as a substitute for completing all the usual requirements of the course.

**Portfolio Assessment**

Portfolio assessment may provide some students with the opportunity to present evidence of learning for evaluation by a faculty member. It is designed for those with extensive documentable knowledge from work experience, travel, independent study, or other out-of-class experiences. Through portfolio assessment, these experiences are evaluated to determine their appropriateness and applicability for university credit.

Credit awarded through portfolio assessment must conform to specific
course titles in the Undergraduate Catalog (i.e., no credits will be awarded for general areas of knowledge) and will only be awarded for undergraduate courses. Only currently enrolled students are eligible to request portfolio assessment, and any credits awarded must be intended for use as part of a degree or certificate program.

Before portfolio assessment credits can be awarded, approval must be obtained from the chair of the department offering the course, the dean of the appropriate IUP college, and the director of the Office of Extended Studies. Once approved, the title of the course, the credits, and indication that credit was earned through portfolio assessment will be recorded on a student’s academic record.

If a related examination is available through the College Level Examination Program (CLEP) or if a departmental examination has previously been established for the course, a portfolio assessment of those credits will not be accepted.

For information about portfolio assessment fees and instructions on how to apply for portfolio assessment, consult with the Office of Extended Studies.

### Change of Major

To qualify for a change of major, a student must be in academic good standing (2.00 cumulative GPA). This requirement does not apply to students in their first semester at IUP without a GPA. All students must meet any other requirements specific to the new major. All teacher certification programs have requirements beyond a 2.00 GPA. Please refer to the individual college sections in this catalog for change of major policies

#### Students with One Major

A student who has one primary major must apply for a change of major online through MyIUP under Academics/Academic Record, Change of Primary Major. Before seeking a change of major, the student should consult with the departmental chair (or chair’s designee) of the new major.

#### Student with Secondary or Tertiary Major

A student wanting to add or change a secondary or tertiary major must obtain and complete the appropriate paper application from the department of the new major. Note: the online application is for a student who has one primary major only.

### Additional Information

When a student changes colleges, the dean (or dean’s designee) of the college of the new major will evaluate the student’s credits before approving the change. A copy of the evaluation will be made available to the student and their new advisor if a change of major occurs.

In cases involving students who are veterans, the dean (or dean’s designee) of the new major shall give the veteran a statement of prospective approval and the effective date of the proposed changes. This statement shall also indicate the amount of extended time the change of major will entail, if any. The veteran shall take this statement to the Military and Veterans Resource Center at least one month before the effective date of change. No change of major shall be made by veterans until VA approval has been assured.

### Academic Advising

All students are assigned academic advisors. In some curricula, the advisors continue with the same group of advisees from year to year. In other curricula, the freshman advisors remain with their advisee groups only for the students’ first year. The student is then assigned an academic advisor for the remaining years to his/her degree in a chosen field. Faculty members advise students on academic achievement, dropping courses, changing curriculum, student activities, study schedules, and career options. Students may identify advisors by signing in to MyIUP (my.iup.edu), selecting the “Academics” page, and then under the “Advising” section, selecting “Advisor contact information.” Students should then contact their advisors. Should a student fail to identify an advisor, he/she may contact the chair of the department for an advisor assignment.

While a faculty member serves to advise the students as they progress to graduation, students are ultimately responsible for knowing and fulfilling the requirements for graduation in their degree program.

### Dual Baccalaureate Degrees

A student who has earned a minimum of 28 undergraduate credits from IUP and is in good academic standing may apply to pursue a second baccalaureate degree concurrently with the first. This application must be submitted to the dean of the college in which the major program of study for the second baccalaureate degree is housed. If admitted to a second baccalaureate degree program, the student must designate one of the two degree programs to be primary. To receive both degrees at graduation, the student must earn at least 30 credits beyond the requirements of the designated primary program of study. The student must earn a minimum of 150 credits to receive both degrees concurrently. Furthermore:

- a. The student may not be graduated until both the degrees are completed.
- b. All requirements for the curriculum of each degree must be satisfied.
- c. A course required in both degree programs does not have to be repeated for the second degree, but exceptions might apply at the departmental level.
- d. All university requirements, such as a minimum GPA and number of residency credits taken at IUP in the major, must be met for each degree separately.
- e. Should a student elect to discontinue the pursuit of receiving two baccalaureate degrees simultaneously and decide to apply for graduation with one degree, the student will be bound to the Postbaccalaureate Studies requirements if a later return to IUP is desired.

### Undergraduate Course Attendance Policy

The university expects all students to attend class.

Individual faculty members may define attendance standards appropriate to each course and the consequences of not meeting those standards, within the following guidelines:

1. Each policy must be distributed in writing during the first week of the course. Normally, it is expected that the information dealing with class attendance standards will be distributed with the course syllabus.
2. Each policy must define some limited level of allowable absence.
3. Each policy must recognize students’ need to miss class because of illness, personal emergency, university-sponsored activities, bereavement, or active military duty.
4. Each policy must not penalize students who add the class during the regular or specified university drop-add period and must allow those students to make up work missed before adding the class.

### Bereavement-related Class Absences

The university community recognizes the impact that the loss of a family member or loved one may have on the emotional and academic wellbeing of a student. In such circumstances, a student may request that a bereavement absence notification be sent to their faculty by contacting either the Office of the Student Advocate at the Academic Success Center or the dean’s office of the college of their major, who will send an e-mail to the student’s faculty stating that the student is away from the university due to the death of a family member or loved one. Documentation that verifies the death (e.g., a funeral program, death notice, obituary, etc.) and the nature of the student’s relationship to the deceased may be requested.

The university encourages allowances for the grieving process, while acknowledging the faculty member’s right to determine the terms of variance from the course syllabus. The student is expected to take the initiative to make all arrangements for meeting academic requirements. The university community also encourages students affected by a loss to contact the IUP Counseling Center or other university and community resources, as appropriate, if they are in need of ongoing emotional support.

### Anticipated Class Absence for University Representation and Participation

The university community recognizes the value of student participation in cocurricular and extracurricular activities of the university, while acknowledging the faculty member’s right to determine the terms of variance from
the course syllabus. Ideally, the student is expected to notify the professor as soon as the student knows that a class will be missed due to a university sponsored event. The faculty may request documentation signed by the activity director, coach, or advisor detailing the specifics of the event in advance.

The student must take the initiative to make all arrangements for meeting academic requirements before the anticipated class absence. Excused absences for participation in university-sponsored events will not result in a penalty to the student, provided that the student makes up missed work as required by the professor.

**Evaluation of Student Progress by Level or Standing**

Each college shall determine a scheme for evaluating the development and progress of its major students.

A college may use a screening procedure that requires all students enrolled in a specific semester or who will complete a specified number of credits attempted by the end of the current semester to apply for approval for advancement.

All students should check with their faculty advisors to determine if their college uses a screening procedure and, if one is used, what the criteria for that procedure are. Students should also refer to their college’s section of the Undergraduate Catalog.

**University Policy on Semester Course Syllabi**

Each faculty member shall prepare and distribute a course syllabus, without charge, to each student within one week of the start of the course. The syllabus will be consistent with the course content and catalog description that was approved by the Curriculum Committee of the University Senate for the initial course offering or revision. Course syllabi may be distributed in hard copy or electronic versions. The course syllabus is a vehicle of communication to promote student academic planning and to avoid misunderstandings of the course plan and requirements.

It is recommended that each syllabus include:

- a. the faculty member’s name, office location, telephone number, IUP e-mail address, and office hours,
- b. an outline of the course content, objectives, and prerequisites, as appropriate,
- c. information about any required textbook(s) with title, author, and edition, as well as any other required materials,
- d. information on the determination of grades, including the weight, types, and scheduling of evaluations, other planned requirements, academic integrity, expectations for class participation, and attendance,
- e. a statement of policies and/or penalties for make-up exams and late submission of assignments,
- f. a statement addressing accommodations for students with disabilities.

**Inclement Weather Policy and Procedures**

IUP is committed to the safety and security of its students, faculty, staff, and visitors. Therefore, the decision as to whether university classes or programs and events will be held during periods of adverse weather conditions is based on the overall concern for the university community.

There is an important distinction between the decision to cancel classes and the decision to close the university. When classes are canceled, staff, managers, administrators, and faculty members whose responsibilities lie outside the classroom are expected to report to work. Employees choosing not to report to work when classes are canceled will be charged paid leave time—either annual, personal leave, or leave without pay—and must submit leave.

The president has the authority to cancel classes and events or to close the university. The decision to close the university will be made only under the most extreme circumstances. If the decision is made to close the university, only essential employees, as notified by their supervisor, will be required to report to work.

Information about the status of the university is always available on the IUP website, and a link to the Emergency Information page is located at the bottom of every page.

The university’s Inclement Weather Policy and Procedures are available under Human Resources Policies. Questions regarding the university’s Inclement Weather Policy may be directed to the Office of Human Resources, 724-357-2431.

The president has the authority to cancel or postpone IUP-sponsored or hosted activities or events due to inclement weather conditions or other environmental factors that may jeopardize the safety of patrons traveling to or from the event. If a decision is made to cancel or postpone the activity or event, the vice president of the sponsoring division will assume responsibility for notifying activity or event participants of the cancellation or postponement in an appropriate and timely manner.

**Grading Policies**

After each semester or session, a grade report will be available to each student by signing in to MyIUP (my.iup.edu).

**Grades and Quality Points**

In the grading system, the following grades are used in reporting the standing of students at the end of each semester or session:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Description</th>
<th>Quality Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Excellent</td>
<td>4 quality points/credit</td>
</tr>
<tr>
<td>B</td>
<td>Good</td>
<td>3 quality points/credit</td>
</tr>
<tr>
<td>C</td>
<td>Average</td>
<td>2 quality points/credit</td>
</tr>
<tr>
<td>D</td>
<td>Pass</td>
<td>1 quality point/credit</td>
</tr>
<tr>
<td>F</td>
<td>Fail</td>
<td>0 quality points/credit</td>
</tr>
<tr>
<td>N</td>
<td>Non-Participation</td>
<td>0 quality points/credit</td>
</tr>
<tr>
<td>P</td>
<td>Pass</td>
<td>0 quality points/credit for (credit courses only)</td>
</tr>
<tr>
<td>S</td>
<td>Satisfactory</td>
<td>0 quality points for (0-credit courses only)</td>
</tr>
<tr>
<td>U</td>
<td>Unsatisfactory</td>
<td>0 quality points for (0-credit courses only)</td>
</tr>
</tbody>
</table>

**Other Designations (carrying no quality points):**

- **AUD** Audited Course
- **EXM** Examination
- **FOL** Portfolio Assessment
- **I** Incomplete—For more information, see policy explanation.
- **L** Late Grade/Continuing Course—For more information, see policy explanation.
- **OL** Other Location
- **Q** Total Semester Withdrawal—Used before 2002 when a student had totally and officially withdrawn from the university for a given semester
- **R** Research in progress (graduate thesis/dissertation only)
- **TR** Transfer
- **XMT** Exemption
- **W** Withdrawal—For more information, see policy explanation.
- **GNI** Grade not reported by instructor. No grade information was reported by the end of the normal grading period.

**Grades followed by the following designations indicate the application of a policy that has amended the student’s cumulative grade point average:**

- **IC** Institutional Credit (credit counts toward enrollment status but does not count toward graduation or in GPA calculation)
- **CS** Canceled Semester (see policy explanation)
* Fresh Start (see policy explanation)  
: Extended Credit (graduate thesis/dissertation only)

**Determining GPA**
Cumulative grade point average (CGPA) is determined by multiplying the credits for a course by the quality points received for that course. Then, the total number of semester quality points for all courses is divided by the total number of credits attempted.

Quality points are not calculated for credits from other schools (i.e., a student transferring from another school earns quality points only on work taken at this university).

Institutional credits are associated with courses numbered below 100. Institutional credits do not apply to degree requirements for graduation but are used to determine enrollment status (full- or part-time), including financial aid and athletic (NCAA) eligibility.

**Audit Policy**
All audited courses will be identified as such on the student’s grade report and transcript. Work taken on an audit basis will not be graded and will not count toward the fulfillment of requirements for a degree to be awarded by IUP. Since credits attempted and quality points will not be awarded for audited courses, they will not affect the student’s grade-point average in any way. Auditors will pay normal tuition and such other fees as may be required for the course.

To audit an undergraduate course, a person must be admitted to the university and have met course prerequisites. Students wishing to audit a course for which they registered should obtain a Course Audit form from the office of the department offering the course. Students must first register for the course before filing a course audit form. All audit processing, including revocation of previously requested audit classification, must be completed during the regular drop/add period. Copies of the completed form are returned to the Office of the Registrar, to the department chair, and to the student. Audit students have the same privileges as other students in all course work. There is no limit on the number of courses which may be audited.

**Midterm Grade Report Policy**
Students are advised to be in contact with instructors throughout the semester to remain current on their course status and progress. To help students monitor their academic performance, instructors will post midterm grades for all undergraduate students. Each semester, the registrar will establish and announce the dates for instructors to enter midterm grades in MyIUP and for students and advisors to access them.

The midterm grade is an advisory grade and is not a permanent part of a student’s academic history. It is not used to determine enrollment status, dismissal, or eligibility for financial aid, housing, or athletics.

**Pass-Fail Policy**
A student may take courses on a pass-fail basis to a total of 15 credits throughout his/her university career. The student is limited to one pass-fail course in any given semester during the sophomore, junior, and senior years. All courses in the student’s Liberal Studies program and courses that meet major and minor requirements are excluded from this prerogative. When scheduled, such a course shall be included in the student’s normal course load for the semester.

The student must declare his/her intent to choose pass-fail in a specific course no later than six weeks after the beginning of the semester or the equivalent time span in a summer session. Once declared, this pass-fail option may not be revoked. Instructors will not be notified of the identity of pass-fail students in their courses. The grade given by the instructor will be translated to a “P” or “F” during grade processing.

A student shall be given academic credit without quality points for a course taken pass-fail upon receiving a passing mark in the course. The credits successfully completed under pass-fail (“passed”), within the overall 15-credit limitation, shall be recorded as counting toward the total credits earned for graduation but not toward the credit-attempted data used in the calculation of the cumulative grade point average. However, if a student fails a pass-fail course, he/she will receive an “F” or “N” (non-participation failure) grade and the corresponding grade point average. An “F” or “N” earned under the pass/fail option may be repeated only under the graded option. (Currently, one course is an exception to the Pass-Fail Course Policy. NMDT 434 is offered only on a pass-fail basis.)

The summer sessions, collectively or in any combination, shall be considered a unit similar to a spring or fall semester for pass-fail purposes. Hence, a student is permitted to take only one course during the summer on a pass-fail basis.

**I (Incomplete) Policy**
The designation of “I” is used to record work, which so far as covered, is of passing grade but is incomplete because of personal illness or other unavoidable reason. Changes of grade to convert designations of “I” must be received in the Office of the Registrar no later than the final day of classes in the next regular (fall/spring) semester after the designation was assigned. If the faculty member does not change the “I” designation using a Change of Grade Form, it will be converted to an F.

In rare circumstances, the student and/or faculty member may ask for an extension of the deadline. In this event, the dean of the college in which the course is taught may approve the extension, providing the faculty member concurs. To monitor designations, the registrar shall submit to department chairs routine semester reports of outstanding “I” designations.

**Procedure**
A faculty member assigning the “I” designation must complete an IncomA faculty member assigning the “I” designation must complete an Incomplete Grade form with the dean’s office indicating the work to be completed, deadlines for completion (it is not necessary to permit the maximum allowable time), and guidelines to establish a final grade. Copies of the completed form will be sent to the department chair, the dean of the college in which the course was taught, and the student receiving the “I” designation.

Upon completion of the course work, or notification by the student that the course work will not be completed, the faculty member must submit a Change of Grade form to indicate the final course grade.

Receiving an “I” designation in a course means that the course DOES NOT satisfy prerequisites.

**L (Late Grade, Continuing Course) Policy**
The designation of “L” (Late grade, continuing course) is appropriate for cases in which student work is expected to extend beyond a given semester/session. The designation of “L” is not to be confused with a designation of “I,” which is only appropriate for individual students unable to complete their course work because of unexpected illness or personal emergency. “L” designations are appropriate for: a. internships, practicums, field experience courses, workshops, and independent studies that, by design, extend beyond the normal end of the grading period, b. others as approved by the department chair and the dean of the college in which the course is taught. If a specific course is always eligible for “L” designations, the dean may grant standing approval for “L” designations every time the course is offered.

Faculty members wanting to use the “L” option for eligible courses must notify the registrar two weeks before the end of classes so that the grades can be pre-entered. “L” designations that are not precoded may be given only with the permission of the department chair and the dean of the college in which the designation is awarded.

Instructors will convert “L” designations to letter grades at the end of the course. Unless an extension is obtained from the dean of the college in which the course was taught, an “L” designation unresolved at the end of one year will be converted to an F.

To monitor “L” designations, the registrar shall submit to each faculty
member routine semester reports of all outstanding “L” designations awarded by that faculty member. The purpose of these reports is to help inform faculty members as they help students complete their course work.

The “L” designation is considered as having MET the prerequisite for subsequent course enrollments.

Grade Change Policy

Once earned grades have been recorded, they may be changed only in the case of clerical and/or calculation error or in the event of a successful grade appeal. It is not appropriate to change a grade based on options, such as supplemental assignments, that are not equally available to all students. The deadline for corrections of clerical and/or calculation errors is the end of the next regular (fall/spring) semester after the grade has been awarded.

Course Repeat Policy

A student may not normally repeat an academic course. Exceptions to this policy are

1. Repeatable courses: Certain courses are eligible for repeat for credit and grade. These courses are advanced art studio courses, music ensembles, special topics courses (281, 481) if the topic is different, and other specifically designated courses.

2. D, F, and N grades:
   a. Repeat with replacement: Undergraduate students are permitted to replace the grades and quality points in the GPA calculation for courses in which they receive a “D,” “F,” or “N” grade by repeating that course at IUP. No more than six repeat-with-replacement attempts are permitted for undergraduate students. A single course can be repeated a maximum of two times. The most recent grade (regardless of whether it is higher or lower) will be the grade used in the GPA calculation. However, the transcript continues to document all academic work, and repeated courses are not deleted from the visual record.
   b. Course transfers: Students seeking to replace or average “D,” “F,” or “N” grades must repeat these courses at IUP. If an IUP course in which a student received an “F” or “N” is repeated at another institution, the credit will transfer to IUP if the course grade is “C” or better, but the original “F” or “N” will continue to count toward the IUP GPA. If an IUP course in which a student received a “D” is repeated at another university, neither the grade nor the credit will transfer.
   c. Postbaccalaureate students (Undergraduate): Students seeking to replace or average “D,” “F,” or “N” grades must repeat these courses at IUP. If an IUP course in which a student received an “F” or “N” is repeated at another institution, the credit will transfer to IUP if the course grade is “C” or better, but the original “F” or “N” will continue to count toward the IUP GPA. If an IUP course in which a student received a “D” is repeated at another university, neither the grade nor the credit will transfer.

3. Other grades: Courses in which students earned a grade of “A,” “B,” “C,” or “P” may be repeated only on an audit basis. New grades will not be assigned, and additional credit will not be awarded.

Canceled Semester Policy

The Canceled Semester Policy provides for cancellation from the cumulative record of the effects of one semester below a GPA of 2.00 for the purpose of helping a student improve academic standing. The student must have been separated from the university for two calendar years (24 consecutive months).

Semester to be canceled refers to any semester of enrollment, whether full- or part-time. Students may elect to use an enrolled summer as their “semester” to be canceled. The entire summer of any given year will be treated as a semester for the purpose of cancellation of grades. Cancellation removes the mathematic effect of all grades (passing, failing, withdrawals) from the semester, but there is no abridgement of the transcript. All courses and original grades remain visible on the official transcript; credit toward graduation remains for those credits associated with passing grades.

A student readmitted under this policy must meet current degree require-
Dean’s List
Undergraduate students receive recognition on the Dean’s List for each semester (or summer session cumulatively) in which they earn at least a 3.25 GPA based on at least 12 credits of graded (not P/F) undergraduate course work, or a combination of graded undergraduate course work and graded graduate course work applying to the baccalaureate degree.

Graduation Honors
Traditional Latin honors are awarded at graduation to first bachelor’s degree candidates with appropriate academic records. Calculation is based on all undergraduate credits and quality points earned at IUP. Graduation honors are not granted for second (subsequent) degrees. The distinctions are: 
Cum laude—3.25 to 3.49 cumulative GPA
Magna cum laude—3.50 to 3.74 cumulative GPA
Summa cum laude—3.75 to 4.00 cumulative GPA

Withdrawal Policies

Individual Course Withdrawal Policy
The Individual Course Withdrawal Policy provides students who are unable to complete a course with the option of withdrawing from that course. This option should be taken only after other options have been discussed with the instructor and/or the student’s advisor.

Individual Course Withdrawals may be processed by signing in to MyIUP (my.iup.edu) between the day after the conclusion of the drop/add period and the end of the first two-thirds of the course. After the two-thirds point of a course, students may no longer process Individual Course Withdrawals.

A student needing to withdraw from a course after the deadline must process a request through the office of the dean of his or her college. Approval of the late withdrawal is contingent on documentation of catastrophic circumstances preventing the student from completing the course. If approved, the college office will arrange for recording the “W” designation.

Since instructors inform students of their unsatisfactory performance in class before the withdrawal deadline (Midterm Grade Report Policy), students will be able to discuss course withdrawals with instructors and/or academic advisors to assess alternatives. Students should be aware of the potential impact of course withdrawal on activities that require full-time status, such as financial aid eligibility (percent of completion and eligibility to move to the next class level), athletic eligibility, and health insurance. Students are also cautioned to consider the detrimental impact of “Ws” in a transcript review by a prospective employer or graduate school.

Total University Withdrawal Policy
The Total University Withdrawal Policy provides students who are unable to complete a term with the option of withdrawing from all classes, and thus from the university, for that term. During the fall and spring semesters, Total University Withdrawals may be processed between the first day of classes and the end of the 11th week of the term. During summer and winter terms, the deadline is the two-thirds point of each course for which the student is registered. Questions about academic impact of withdrawal should be directed to the Department for Disability Access and Advising (see “Process” below). Questions about the financial impact of withdrawal should be addressed to the Office of the Bursar and/or the Office of Financial Aid.

Late Withdrawal: Any undergraduate student who needs to withdraw from the university after the deadline must process a waiver through the office of the dean of his or her college. Approval of the waiver is contingent on documentation of catastrophic circumstances preventing the student from completing the term. Approved waivers must be submitted to the Department for Disability Access and Advising and attached to the Total University Withdrawal form for processing as below.

Involuntary Withdrawal: Any undergraduate student involuntarily withdrawing from the university as a result of suspension or expulsion unrelated to violations of the Academic Integrity Policy will automatically have the designation of “W” assigned to each registered course as a result of such judicial action.

Process: Undergraduate students voluntarily withdrawing from the university should first review information on withdrawals on the Academic Success Center website (www.iup.edu/success) and confirm the financial impact of withdrawal by meeting with a representative from Financial Aid. Then they must process a Total University Withdrawal Form either via MyIUP (my.iup.edu) or by form completion with the Office of Student Advocate. Once the Total University Withdrawal has been processed, a withdrawal designation (“W”) will be assigned to all registered courses from which the student is withdrawing. There are no financial leniencies for withdrawals caused by medical situations. IUP’s percentage of forfeiture rates follow state and federal dictates, which do not address medical situations.

Readmission: Students should refer to the Readmission Policy in the Admissions section of this catalog for further information about returning to IUP.

Involuntary Withdrawal Policy

Purpose: The purpose of this policy is to provide a procedure for determining whether an identified student’s behavior poses a direct threat (as defined herein) and for responding to such behavior. Rarely does student behavior pose a direct threat. However, involuntary withdrawal may be appropriate when:

• the student displays behavior that is not prohibited by and/or could not be adjudicated by the Student Behavior Regulations or the Academic Integrity Policy, but that nonetheless poses a direct threat; and
• the student demonstrates a risk of repeated display of such behavior.

Policy: In the absence of other reasonable means or university procedures available for addressing a student’s behavior that poses a direct threat, the university will conduct an individualized assessment of the student behavior and circumstances related to the observed behavior of concern and, if appropriate, implement the involuntary, total withdrawal of the identified student from the university.

The student may appeal an involuntary withdrawal decision or may seek re-enrollment to the university at a later time, in accordance with the guidelines and procedures articulated below. The decision regarding an appeal or re-enrollment request will be considered on the basis of whether the student continues to pose a direct threat.

The policy will be applied in a nondiscriminatory manner, and decisions will be based on consideration of the student’s conduct, actions, and statements, not on knowledge or belief that the student has a disability.

Definitions:
A. Direct Threat: behavior that poses
• significant risk to the health or safety of others, or
• significant risk of damage to university property, or
• substantial disruption to the activities or education of other students

B. Significant Risk: behavior that has a high probability (not just a slightly increased, speculative, or remote risk) of substantial harm to the university community, given information concerning the behavior that is available at the time of consideration

C. Substantial Disruption: behavior that continually and considerably interferes with other students’ participation in academic, work, extra-curricular, housing/residence life, or other university-related activities

Procedures:
A. Review Process
1. When made aware of an identified student whose behavior could warrant involuntary withdrawal, the vice president for Student Affairs (or designee) will convene and oversee an Involuntary Withdrawal Review Team to conduct an individualized assessment of the student behavior and circumstances related to the observed behavior of concern and advise him/her whether a direct threat exists. Members of this team will include a representative from the Health Service, the Counseling Center, Disability Support Services, and the student’s academic dean (or designee). Depending on the nature of a particular case, and in accordance with FERPA and other relevant laws, other individuals who can assist in evaluating the potential risk posed by the student’s behavior, including professionals
qualified to interpret the information available for consideration, may be identified to advise the vice president and review team.

The goal of the vice president and review team will be to ascertain whether the student’s behavior poses a direct threat. Factors to consider may include

- the nature, duration, and severity of the risk of harm;
- the likelihood that the potential harm will occur;
- if the student asserts to have a legally protected disability entitled to reasonable accommodation, whether reasonable modification of university policies, practices, and procedures would sufficiently mitigate the risk.

2. The vice president and review team may request to review educational records and/or to consult with various university community members or others who may be knowledgeable of the student and/or the behavior of concern.

3. The vice president and review team may request that the student take part in a medical/psychological evaluation. In such a case, the vice president and review team will identify a qualified and licensed health professional who is independent from the university to conduct the evaluation. The university will be responsible for the fees associated with this evaluation.

4. The vice president and review team will request a personal meeting(s) with the student. Although it is highly desirable that the student choose to attend such a meeting(s), the review process may proceed if he/she does not attend. Furthermore, the direct threat review process will proceed regardless of the student’s ongoing university status. At the meeting(s), the vice president and review team will present and discuss the information that is available for consideration. The student may choose to have an advocate accompany and take part with him/her in the meeting(s).

5. Based on the review team’s assessment, including consultation with professionals qualified to interpret the information available for consideration, the vice president may conclude that a direct threat exists and, if so, will determine an appropriate next step, which may entail involuntary, total withdrawal of the student from the university but would not preclude other actions depending on the particular situation.

6. The review decision will be communicated by the vice president to the student and will provide the primary information that led to the decision. Any conditions for later re-enrollment will also be communicated at that time. The decision and related information will be communicated in writing to the student and may be additionally communicated in other forms if the situation permits.

7. At any time before conclusion of the review process, the student may withdraw voluntarily.

B. Appeal Process

1. The decision of the vice president may be appealed in writing by the student to the IUP president.
2. An appeal must be filed within 90 calendar days after the decision of the vice president is communicated in writing to the student.
3. The president’s decision on the appeal will be final and conclusive.
4. During the appeal process, the student will remain totally withdrawn from the university.

C. Re-enrollment Process

1. A student for whom the vice president for Student Affairs concluded a direct threat exists may later request re-enrollment to the university. A request must be made to the vice president for Student Affairs. In his/her request, the student should provide evidence that he/she would no longer pose a direct threat and that any conditions for re-enrollment have been met. Such student is responsible for any fees associated with treatment, activities, and/or evaluations that he/she has taken part in or obtained in an attempt to demonstrate appropriateness for re-enrollment.
2. The vice president will convene and oversee the Involuntary Withdrawal Review Team regarding the re-enrollment of the student.
3. The vice president and review team may request an updated, independent, university-obtained medical/psychological evaluation and/or request to meet with the student. The university will be responsible for the fees associated with this evaluation.

4. The decision of the vice president will be based on a determination of whether the student can return safely to the university community and no longer pose a direct threat.

D. Emergency Situation

At any time before the initiation or conclusion of the review process, the vice president may implement an interim involuntary withdrawal of the student from the university, should immediate action appear warranted. A review process, as outlined above, will occur as soon as reasonably possible to consider the interim decision.

Recision: This policy will not be rescinded or modified except by action of the IUP president, following consultation with the University Senate, and in accordance with University Senate Bylaws and Constitution.

Publications Statement: The IUP Office of the Vice President for Student Affairs will publicize and transmit this policy to all members of the university community.

Withdrawal from IUP and Its Impact on Student Financial Aid

Students taking a total university withdrawal from all of their courses at IUP may find their financial aid for that particular semester affected. The 1998 Reauthorization of the Higher Education Act requires educational institutions to calculate a Return of Federal Student Aid Funds (Title IV aid) for students who withdraw from all classes on or before the 60 percent attendance point in the semester. A pro-rata schedule is used to determine the percentage of the semester attended; that percentage determines the amount of federal funds earned. The Office of the Bursar applies the federal guidelines and returns the unearned portion to the federal programs in the following order: (1) Unsubsidized Federal Direct Loan, (2) Subsidized Federal Direct Loan, (3) Federal Perkins Loan, (4) Federal Direct PLUS Loan, (5) Federal Pell Grant, and (6) Federal Supplemental Educational Opportunity Grant.

Example: If a student withdrew on the 32nd calendar day of a semester that encompassed 106 calendar days (not including breaks of five or more days), the student would have attended 30 percent of the semester. Therefore, the student would have earned 30 percent of his or her federal aid.

In addition to affecting current eligibility, a total withdrawal can affect future eligibility for financial aid. Please refer to the section regarding satisfactory academic progress.

IUP Policy for Enrolled Students Called to Active Military Service

IUP provides two options for students who are currently enrolled but called to active military duty before the end of the semester:

Option 1
The student may choose to do a total semester withdrawal from all his/her classes and, under a State System of Higher Education policy, receive a full refund for tuition and fees; any university room and dining hall contract fees would be refunded on a prorated basis for the actual services the student has received up to the date of the withdrawal. This option requires that the student withdraw from every course and receive no grade for any course taken in that semester.

To process a total semester withdrawal, undergraduate students must contact the Office of the Student Advocate at the Student Success Center to complete the necessary paperwork to assign the course withdrawal designations and to start the process for refunds; graduate students must notify the School of Graduate Studies and Research, 101 Stright Hall, (www.iup.edu/graduate).

Any student who has elected to use this option shall be granted re-enrollment for the next semester in which the student wishes to return to IUP. The student’s academic standing at the time of re-enrollment shall remain as it was before the call to active military duty.

For federal student aid recipients, the return of Title IV student aid will be applicable. Students who previously received a refund from their Title IV
federal aid awards, may have to return these funds to the university so that federal aid programs can be credited appropriately.

**Option 2**

If a substantial part of the semester (typically two-thirds to three-quarters of the semester) has been completed by the time the student is called for active military duty, he/she may meet with each instructor to determine an appropriate grade. Since assignment of grades is the responsibility of the instructor, he/she may assign whatever grade is appropriate. If the appropriate grade is an “incomplete,” IUP will extend the deadline by which the incomplete must be removed to 180 days from the time the student returns from active duty. Any university room and dining hall contract fees would be refunded on a prorated basis for the actual services the student has received up to the date of leaving the university for active duty.

Undergraduate students must contact the Office of the Student Advocate at the Academic Success Center to complete the necessary paperwork to start the process for refunds; graduate students must notify the School of Graduate Studies and Research.

Any student who has elected to use Option 2 who wishes to return to IUP must apply for re-enrollment, which will be granted under this policy. Questions may be addressed to the Office of the Registrar, 300 Clark Hall, (www.iup.edu/registrar).

**Academic Standards Policy**

**A. Purpose:** The university establishes minimum standards for cumulative grade point average (CGPA) to encourage academic accomplishment and timely progress toward graduation. This policy applies to all undergraduate students.

**B. Terminology**

1. **Academic Good Standing:** Students maintaining a CGPA of at least 2.00 are in Academic Good Standing.
2. **Probation:** Students whose CGPA falls below the 2.00 standard are on Probation during the next semester for which they are registered.
3. **Extended Probation:** Students who have been authorized to continue, even though they have not achieved a 2.00 CGPA after one semester of probation, are on Extended Probation during the next semester for which they are registered.
4. **Academic Recovery Plan:** Students whose CGPA falls below the 2.00 standard must develop an Academic Recovery Plan for achieving Academic Good Standing.
5. **Academic Recovery Hold:** An Academic Recovery Hold is placed on the records of students who fail to submit an Academic Recovery Plan, preventing them from processing any registration transaction.

**C. Administrative Review and Enforcement of Standards**

1. Each college, regional campus, and the Department of Developmental Studies will designate an Academic Standards officer who will be responsible for academic review and enforcement of standards.
2. An academic review is conducted at the end of each semester.
   a. Students earning a 0.00 CGPA at the end of their first semester of enrollment will be dismissed from the university, except for students enrolled in only one course (up to 4 credits), who may be placed on probation at the discretion of the appropriate Academic Standards officer.
   b. Other students falling below the 2.00 CGPA standard will be placed on probation at the end of the semester. They may continue on probation for one semester. They will be required to develop and implement an Academic Recovery Plan.
   c. Students still below the 2.00 CGPA standard after a semester of probation are subject to dismissal. The Academic Standards officer may grant one semester of extended probation to those who (1) made progress toward Academic Good Standing while on probation or followed their approved Academic Recovery Plan and (2) have a reasonable mathematical chance of achieving a 2.00 CGPA after one additional semester. Other probation students will be dismissed.
   d. Students still below the 2.00 CGPA standard after a semester of extended probation will be dismissed.
   e. Students who regain Academic Good Standing but again fall below the 2.00 CGPA standard in a subsequent semester are permitted another semester of probation and, where appropriate, extended probation.
   f. Students who fail to establish an Academic Recovery Plan before the beginning of registration for the next semester will incur an Academic Recovery Hold preventing registration.
   g. Students referred by the Office of Admissions for first-year study at a regional campus may transition to the Indiana campus upon achieving 24 credits through two regular academic semesters at a 2.00 CGPA.
   h. Students admitted through the Department of Developmental Studies remain under the direction of the department for at least an academic year after initial enrollment and until reaching the 2.00 CGPA standard.

**D. Academic Recovery Plan:** Students not meeting the 2.00 CGPA standard must design and implement a comprehensive plan leading to Academic Good Standing. The plan must be developed with and approved by the appropriate Academic Standards officer (or designee).

1. **Analysis:** Students must identify the factors contributing to their unsatisfactory achievement.
2. **Planning:** Plans must include a schedule of minimum grades needed to achieve Academic Good Standing.
3. **Commitment:** Students must commit to changes in behavior necessary to achieve academic success. This might include better time management, career exploration, and the use of such support services as academic advisors, tutoring, the Writing Center, the Counseling Center, the Department of Developmental Studies workshops on study skills and related activities, and any other opportunities deemed important by the Academic Standards officer (or designee).
4. **Documentation:** Each plan must include an explanation of satisfactory methods of documentation. It is the student’s responsibility to provide documentation supporting compliance with the agreed upon plan, if requested.

**E. Reenrollment**

1. Students dismissed under this policy may not be reenrolled for at least one calendar year.
2. Dismissed students may, after one calendar year, apply for reenrollment through the Office of the Registrar.
   a. A decision for reenrollment of a student in probationary or dismissed status, regardless of whether the student was dismissed by the university or the student voluntarily withdrew, is the responsibility of the Academic Standards officer of the college the student wishes to enter. If the student is seeking admission to a new college, the officer of the new college will consult with the officer of the former college before making a decision. The Office of the Registrar will officially change the major based on the Academic Standards officer’s reenrollment letter to the student.
   b. A decision for reenrollment of a student enrolled at a regional campus at the time of dismissal or voluntary withdrawal, regardless of whether the student was dismissed by the university or the student voluntarily withdrew, is the responsibility of the Academic Standards officer of the regional campus.
   c. A decision for reenrollment of a student enrolled in the Department of Developmental Studies/Act 101 at the time of dismissal or voluntary withdrawal is the responsibility of the Developmental Studies Academic Standards officer.
3. Those students who, in the opinion of the appropriate Academic Standards officer, are likely to achieve academic success may be reenrolled.
4. Students may be reenrolled only once under this policy. Subsequent reenrollment may be available under the Canceled Semester Policy or the Fresh Start Policy.
IUP Student Grade Appeal Policy

Purpose

Grade Review and Grade Appeal are designed as means to resolve differences between students and faculty members related to grading.

Grade Review

A student may disagree with the instructor’s professional evaluation of his or her work but have no grounds for making an appeal based on a claim of discrimination, capriciousness, and/or error as defined below. In these cases, the student should discuss the matter directly with the instructor and, if unsatisfied, with the chair of the department in which the course was offered and, if still unsatisfied, with the dean of the college in which the course was offered. If resolution does not occur during grade review, the decision of the instructor shall be final. If there is basis for claiming discrimination, capriciousness, and/or error, the student may proceed with a grade appeal.

Grade Appeal

If a student believes that an improper grade has been assigned, an appeal may be filed only on the following grounds:

1. **Discrimination:** On the basis of race, ethnicity, color, religion, national origin, sex, age, ancestry, disability, gender identity, sexual orientation, veteran status, or political affiliation.

2. **Capricious Evaluation:** Significant and unwarranted deviation from grading procedures and course outlines set at the beginning of the course (ordinarily in a written statement during the first week of the course) or grade assigned arbitrarily on the basis of whim or impulse. Disagreement with the instructor’s professional evaluation is not sufficient by itself for a claim of capriciousness.

3. **Error:** Demonstrable, objective determination that a mathematical or clerical error resulted in the entry of an incorrect grade.

Procedures of Appeal

Level I: Informal Resolution

Every effort should be made to resolve the disagreement at Level I. Once a student has determined the proper grounds for appeal, he or she must first seek a resolution to the disagreement with the instructor either in person or in writing. If the student is not satisfied with the results, the student must then speak with the chair of the department that offers the course. If still unsatisfied, the student must discuss the matter with the dean of the college that offers the course. A Student Government Association member may accompany and advise the student during the Level I procedures. Only after all attempts for resolution at Level I have been exhausted may the student initiate Level II.

Level II: Appeal Screening

A. **Composition:** Each year there shall be appointed a Grade Appeals Committee to determine the existence of the substantive basis for appeal. The committee will be composed of seven voting members: three faculty members appointed by APSCUF, three members elected by and from the Senate Academic Committee (one faculty, one administrator, one student), and one student appointed by the Student Government Association. A quorum consists of a majority of the committee. To take action, a majority of those present must be faculty members. If a quorum of the Level II committee is not available to meet within the designated time limits, the Office of the Provost will seek additional members from the appointing bodies. If these bodies are unable to respond in a timely manner, the Office of the Provost may select additional members from the appropriate groups.

B. **Procedure to Initiate Appeal:** To initiate Level II of the appeal, the student must file an appeal form with the Office of the Provost. This form must be filed within 60 calendar days of the beginning of the semester immediately following the semester in which the grade was received. The Office of the Provost may extend the 60-day limit only in unusual circumstances when equity demands it. (Note: Grade appeals will not generally be processed during the summer. Therefore, the appeal of any grade received in the spring or summer sessions normally will be processed in the fall. A review will be scheduled in the summer only when the student’s academic eligibility is jeopardized by the grade in question or when the student is a graduating senior.) The Office of the Provost will notify the appropriate dean, department chair, instructor, APSCUF president, and the Student Government Association president of the student’s initiation of the Level II process.

C. **Procedure to Process Appeal:** In addition to the appeal form, the student will be expected to submit pertinent information/documentation and rationale for his/her complaint, which will serve as supporting evidence. The faculty member instructor will be expected to submit in writing the course grading procedure and any other pertinent information. The director of Social Equity or designee will advise in appeals based on discrimination. Appeals based on capriciousness will be reviewed in light of the instructor’s announced evaluation and grading system. The committee will review the materials to deny or confirm appeal continuation. Denial of appeal continuation must be by a negative vote of a majority of those present. This committee will immediately inform the Office of the Provost of its findings. Within five (5) class days of the receipt of the committee’s report, the provost or designee will notify the student and the instructor of the findings. If the basis for appeal is determined to be substantive, the provost or designee will schedule a Level III Grade Appeal Panel within 15 class days to be convened before the conclusion of the semester.

Level III: Appeal Review

A. **Composition:** The Grade Appeal Panel will consist of five voting members: one academic dean or assistant/associate dean and four faculty members. The Student Government Association Executive Committee designee may advise as requested by the student. The director of Social Equity or designee will advise in appeals based on discrimination. The panel will be constituted from the Grade Appeal Pool by random selection. The panel chair will be elected by and from the panel before each review.

B. **Membership:** The Grade Appeal Pool will be established in the spring semester to serve for the following academic year. Using random selection methods, the pool will be established by the Office of the Provost. A pool of three deans or assistant/associate deans and 12 full-time faculty members will be maintained. To establish the membership for each appeal panel, before each appeal, the names of pool members will be supplied to all parties involved. A panel member must recuse him or herself if there is a conflict of interest. The student and the instructor may eliminate only one dean or assistant/associate dean and two faculty members. The opportunity to disqualify panel members will take place only once. If through self-disqualification and challenges a panel cannot be constituted from the pool, then the Office of the Provost will supplement the pool using appropriate random selection methods.

C. **Procedure:**

1. Both the student and the instructor will have the right to appear before the panel, present witnesses, and offer evidence. In addition to those specified in Level III, Section A, each may also bring one observer, with whom he or she may consult but who may not participate in the proceedings.

2. The panel shall determine its rules of order for internal operation. After hearing the evidence brought forth, the panel will privately deliberate and render a decision. If the grade appeal is upheld, the Office of the Provost will assemble a committee of three appropriate faculty members (knowledgeable in the discipline but excluding the instructor against whom the complaint was lodged), who will review the student’s work and recommend to the panel the appropriate grade or suitable remedy. The panel will incorporate this recommendation in its determination, which it then forwards to the Office of the Provost for implementation, ordinarily within 30 days. The Office of the Provost will initiate the processing of grade changes resulting from Level III decisions. The Office of the Provost will notify the student of grade changes resulting from Level III decisions.

3. The written report sent to the Office of the Provost will state whether the student’s appeal is upheld or denied; if upheld, the committee’s evaluation and remedy will be included. Both the
A. Amendment: Amendments may be implemented upon concurrence by University Senate, APSCUF Representative Council, and Meet-and-Discuss. In the amendment process, specification of University Senate implies the Council of Trustees’ role in approving Senate actions and recognizes the Council of Trustees’ final action to change policy.

B. Appeals on Procedural Grounds: Decisions may not be challenged merely because the Office of the Provost fails to comply with Ancillary Provisions E, J, or I.

C. Confidentiality: Students, faculty, administrators, and staff involved in processing and hearing grade appeals must respect the confidentiality of all aspects of these proceedings. Those breaching confidentiality subject themselves to possible disciplinary action. This shall not abridge the First Amendment rights of the student appellant nor the instructor against whom the appeal has been filed.

D. Continuing Rights: This appeal does not supplant any legal rights afforded by the Commonwealth of Pennsylvania and/or the Government of the United States. Nothing in this policy abrogates or modifies any provisions of or rights under the Collective Bargaining Agreement.

E. Discrimination: Discrimination in this policy generally means unlawful discrimination. To the extent that any form of discrimination identified in this definition is not unlawful discrimination, this definition shall not be taken to create a cause of appeal against the university. In such cases, the final appeal procedures stated in this policy will be final and binding on the student.

F. Dissemination of Grade Appeal Information: The Office of the Provost will annually report to the university community a statistical summary of grade appeal data that does not compromise confidentiality, including (1) the number of appeals filed, (2) the resolutions at levels II and III, and (3) the final implementation of level III decisions.

G. Faculty Compensation: If a Level III Grade Appeal Panel (hearing) is scheduled at a time when any faculty member involved is not under contract, the faculty member will be compensated under terms mutually agreed upon at Meet-and-Discuss.

H. Intended Purpose: Unless there is intentional misrepresentation, the results of a grade appeal may not be used for disciplinary action of students or instructors.

I. Intentional Misrepresentation: Intentional misrepresentation in the filing of grade appeals by students will be referred to the university judicial system for students. Intentional misrepresentation by faculty instructors in the grade appeals process will be referred to the Office of the Provost.

J. Support Mechanism: The Office of the Provost, after consultation with the Senate Academic Committee and APSCUF, will be responsible for identifying a pool of at least 10 faculty members well versed in the preparation of grade appeals who will be available upon request to help students or faculty members prepare documentation for the grade appeals process.

K. Tenure and Promotion Committee Membership on Grade Appeals Committees: Members of the university-wide tenure and promotion committees may not serve concurrently on grade appeals committees.

L. Training/Support: Upon request, the Office of the Provost will offer information sessions/workshops to assist deans, chairs, grade appeals panel/committee members, and members of Student Government Association/university in identifying issues and to provide guidance for the resolution of grade appeals.

**Academic Integrity Policy**

IUP is committed to the fundamental values of academic integrity. Academic integrity means honesty and responsibility in scholarly endeavors and behaviors; it means that all academic work should be the result of an individual’s own effort. Academic assignments help students learn and allow them to exhibit this learning. Grades are an assessment of the extent to which learning has been demonstrated in assignments. Therefore, academic work and grades should be the result of a student’s own understanding and effort. All members of the IUP community—including students, faculty, and staff—are responsible for maintaining academic integrity, which includes knowing what IUP’s academic integrity policies are and being able to identify academic misconduct. Academic misconduct includes any action which improperly impacts the assessment or representation of a student’s academic achievement. Academic misconduct may result in disciplinary action, including expulsion from the University.

**A. Violations**

Academic integrity violations can take many forms. Violations of IUP’s standards of academic integrity include, but are not limited to, the following broadly defined categories:

1. **Plagiarism**: Plagiarism is a type of fraud that involves stealing someone else’s work and lying about it. Using someone else’s words, ideas, or data as if it were one’s own work is plagiarism. Plagiarism applies to any type of source, whether published or unpublished, and to any type of assignment, whether written, oral, or otherwise. Plagiarism can be avoided simply by acknowledging that certain material is the work of another, and then providing a citation that gives a reader the information necessary to find the source of the work. Any assignment submitted by a student that includes the words, ideas, or data of another must include complete, accurate, and specific references. Any verbatim statements must also include quotation marks. More information about what constitutes plagiarism and how to avoid it can be found online at the Office of the Provost website (www.iup.edu/academicintegrity).

2. **Fabrication**: Fabrication means making something up to deceive or mislead someone. This includes, but is not limited to, the use of fictitious data, research, citations, or any other kind of information. Fabrication also includes making false claims to influence testing or grading, or to gain academic credit. More information about what constitutes fabrication and how to avoid it can be found online at the Office of the Provost website.

3. **Cheating**: Cheating is an attempt to misrepresent one’s mastery of information or skills being assessed. Cheating takes many forms; it includes, but is not limited to, using (or attempting to use) unauthorized materials, assistance, information, devices or study aids in any academic exercise. Cheating also includes, among other things, using the same paper or work more than once without authorization of the faculty member to whom the work is being submitted. More information about what constitutes cheating and how to avoid it can be found online at the Office of the Provost website.

4. **Technological Misconduct**: Computer dishonesty, as addressed by university computing policies, includes, but is not limited to, using or attempting to use computing accounts or other information for which the student is not authorized; providing false or misleading information to obtain a computing account or access to other information resources; attempting to obtain information resource access codes (usernames, passwords, PINs, etc.) for another user’s computing accounts; sharing information resource access codes (usernames, passwords, PINs, etc.) with other individuals; attempting to disguise the identity of a computing account or other information resource; using or attempting to use university network resources to gain or attempt to gain unauthorized access to remote computers including, but not limited to, port scanning; violating the terms of intellectual property rights, in particular software license agreements and copyright laws; using information resources to monitor another user’s data communications or to read, copy, change, or delete another user’s files or software without permission of the owner; and using or installing or attempting to use or install software not properly licensed. More information about what constitutes technological misconduct and how to avoid it can be found online at the Office of the Provost website.

5. **Academic Dishonesty**: Academic dishonesty consists of any deceitful or unfair conduct relevant to a student’s participation in
a course or any other academic exercise or function. Academic dishonesty includes, but is not limited to: tampering with grades, any action that unfairly impacts the assessment of one’s academic work, disrupting or interfering with the learning environment or the ability of others to complete academic assignments, intentionally evading IUP academic policies and procedures, or failure to comply with previously imposed sanctions for academic violations. Academic dishonesty also includes violations of student conduct policies, as related to the academic environment. A comprehensive discussion of IUP’s policies and student behavior expectations has been compiled in, “The Source: A Student Policy Guide.” Downloadable copies of “The Source” are available online at the Office of Student Conduct website (www.iup.edu/studentconduct).

6. Facilitating Academic Integrity Violations: Facilitating academic integrity violations includes attempting to help another engage in an academic integrity violation.

7. Classroom Misconduct: Conduct that significantly disrupts the learning process or is a threat to others.

8. Out-of-Classroom Misconduct: Behavior that is unethical or hazardous in IUP-sponsored professional experience activities, such as internship, clinical, student training, practicum, and service learning, or other out-of-classroom experiences.

9. Noncompliance: Noncompliant behavior includes failure to fulfill any sanction levied as a result of an academic integrity proceeding.

B. Referrals for Alleged Violation

Charges of academic integrity violations may be brought by a faculty member or administrator. Students who observe or become aware of a violation of academic integrity by another student are strongly encouraged to report it to a faculty member or administrator.

If, after reviewing the referral, the Office of the Provost determines the alleged behavior needs to be referred to another office, the Office of the Provost will share all pertinent information with the appropriate office.

C. Conduct of Proceedings

1. If charges are brought, an accused student shall have an opportunity to answer, explain, and defend themselves against the charges in accordance with the procedures below:

2. The university shall have the burden of proof of establishing violations based on evidence to make a reasonable person believe a fact sought to be proved is more likely true than not.

3. All formal records pertaining to academic integrity will remain confidential to the greatest extent possible.

4. All references to days in this policy refer to calendar days.

5. Sequential processing of an alleged academic integrity violation through the following resolution processes is not required.

D. Resolution by Documented Agreement with the Faculty Member/Administrator

1. If the faculty member/administrator does not believe that the violation is so severe that it warrants sanctions such as disciplinary probation, involuntary withdrawal from part of IUP’s academic or other programs, suspension, expulsion, or rescission of a conferred degree, the faculty member/administrator may seek to resolve the matter by Documented Agreement. (Note: If the faculty member/administrator believes that the violation is so severe that it warrants a sanction that includes disciplinary probation, involuntary withdrawal from part of IUP’s academic or other programs, suspension, expulsion, or rescission of a conferred degree, the faculty member/administrator may seek to resolve the matter directly through formal adjudication, such as Hearing by Department Chair or Hearing by AIB.)

The faculty member/administrator will schedule a timely formal conference with the student to reach a mutually agreeable resolution. This conference should be requested within ten (10) days of the observation or discovery of the alleged violation absent unusual circumstances. Absent unusual circumstances, a conference should be held within ten (10) days of request, an agreement should be reached within ten (10) days of conference, and if no agreement is reached within then (10) days of conference, the alleged violation will be resolved through formal adjudication. If the violation pertains to work being judged or that has been judged by a committee, such as a thesis or comprehensive examination, the conference must involve a majority of the committee.

2. If an agreement is reached, a Documented Agreement Referral form available online at MyIUP must be completed and acknowledge in writing by all required parties within ten (10) days of the conference. Electronic copies of the form must be distributed to all signatories to the agreement and Office of the Provost. If the violation pertains to work being judged or that has been judged by a committee such as a thesis or comprehensive examination, the Documented Agreement Referral form must be agreed to by a majority of the committee and the student. In all other cases, the faculty member/administrator and student must acknowledge the agreement.

3. By signing the Documented Agreement, the student waives any right to appeal the sanctions agreed upon and set forth in the Documented Agreement. If the student fails to fulfill the terms of the Documented Agreement, the faculty member/administrator may file an academic integrity referral against the student for noncompliance within ten (10) days of discovery of said failure.

4. If the parties are unsuccessful at reaching a Documented Agreement, the faculty member/administrator/student will pursue formal adjudication. The student will have input as to the path for formal adjudication (i.e., hearing by Department Chair or Hearing by AIB).

E. Resolution by Formal Adjudication

Formal adjudication will be pursued if:

- The faculty member/administrator and student are unable to reach a resolution by Documented Agreement;
- The faculty member/administrator believes that the violation is so severe that it warrants a sanction that includes disciplinary probation, involuntary withdrawal from part of IUP’s academic or other programs, suspension, expulsion, or rescission of a conferred degree (Note: in this instance, a faculty member/administrator does not have to initiate resolution of the alleged violation first through Documented Agreement); and/or
- A student desires formal adjudication and not a Documented Agreement to resolve the alleged academic integrity violation.

A formal adjudication is initiated by the faculty member/administrator filing an Academic Integrity Referral form and may take the form of a hearing by the department chair and/or a hearing conducted by an Academic Integrity Board (AIB). If the student desires formal adjudication, the faculty member/administrator will initiate a formal adjudication by filling out an Academic Integrity Form indicating the student’s request and path for adjudication. If there is no indication of which formal adjudication path has been requested, the Office of the Provost will initiate discussion with the student regarding preferred path.

1. Hearing by Department Chair

a. The faculty member/administrator and the student may agree to have the matter adjudicated by a hearing by department chair. The Academic Integrity Referral form should include a statement the parties agree to have the matter adjudicated by a hearing by department chair and should be filed within ten (10) days of the parties’ failure to reach a resolution through Documented Agreement. A copy of the Academic Integrity Referral form will be sent to the referring party and the student.

b. If the faculty member/administrator had decided to take the matter directly to a hearing by department chair due to the seriousness of the alleged violations without first using the Documented Agreement process, the faculty member/administrator will complete the Academic Integrity Referral form and forward it to the department chair. A copy of the Academic Integrity Referral form will be sent to the referring party and the student.

c. Despite the wishes of the referring party and the student, the matter may be referred directly to an AIB if:
   i. The department chair believes the circumstances and the severity of the alleged would result in a recommended sanction of suspension, expulsion or rescission of degree if true or if the department chair otherwise believes the violation warrants Hearing by AIB; or
   ii. The department chair feels he/she is unable to provide an unbiased/impartial opportunity for a hearing.

d. If the department chair elects to send the violation directly to the AIB, the department chair should forward the Academic Integrity Referral form to the Office of the Provost within ten (10) days of receiving the form from the faculty member/administrator.
The student has the right to appeal the AIB’s decision and/or sanctions through the Office of the Provost as outlined in the appeal procedure. If the sanctions include suspension, expulsion, or rescission of a degree, the matter will be referred to the Provost/designee for review.

The student and faculty member/administrator have the right to bring an advisor to the hearing. Advisors may only consult privately with the faculty member/administrator or student.

Following the hearing, the department chair will render a determination based on the information presented at the hearing. Within ten (10) days of the hearing, absent extenuating circumstances, the department chair will send a written report of the hearing to the Office of the Provost with copies to the faculty member/administrator and the student summarizing the outcome, the factual basis for the determination reached, and if violation is found, recommending sanctions to be imposed and appeal procedures.

i. If the sanctions include suspension, expulsion, or rescission of a degree, the matter will be referred to the Provost/designee for review.

j. The student has the right to appeal the department chair’s decision and/or sanctions through the Office of the Provost as outlined in the appeal procedure.

2. Hearing by Academic Integrity Board:

a. A hearing before the AIB will occur if:

i. The faculty member/administrator feels the alleged violation is egregious enough to warrant sanctions including suspension or expulsion.

ii. The faculty member/administrator and the student do not agree to have the matter adjudicated by a hearing by department chair;

iii. The department chair refers the matter to an AIB without conducting a hearing;

iv. The student has previous violations on record. In this case, the AIB will determine if additional sanctioning is warranted due to multiple academic integrity violations.

b. The AIB will schedule a hearing within ten (10) days of receipt of the referral absent extenuating circumstances to allow the student a reasonable time to prepare a defense. The student accused must be given at least three (3) days advance written notice of the hearing to allow the student a reasonable time to prepare a defense. The student may waive this notice requirement.

c. The student and the faculty member/administrator must be given the opportunity to submit and review written, physical, and testimonial evidence and to question witnesses at the hearing.

d. The student and faculty member/administrator have the right to bring an advisor to the hearing or the review. Advisors may only consult privately with the faculty member/administrator or student.

e. Following a hearing, the AIB will render a determination based on the information presented at the hearing. Within ten (10) days of the hearing, absent extenuating circumstances, the chair will send a written report of the hearing of the Office of the Provost with copies to the faculty member/administrator and the student summarizing the outcome, the factual basis for the determination reached, and if a violation is found, sanctions to be imposed and appeal procedures.

f. If the Sanctions include suspension, expulsion, or rescission of a degree, the matter will be referred to the Provost/designee for review.

g. The student has the right to appeal the AIB’s decision and/or sanctions.

3. Composition of an AIB

a. For undergraduate hearings and reviews, and AIB will be made up of four (4) faculty members and two (2) undergraduate students. All members, including the chair, are voting members.

b. For graduate-level hearings and reviews involving undergraduate students taking graduate level courses, refer to the Graduate School’s policy on AIB composition.

c. For any case heard or reviewed, at least four AIB members must be available, at least one of whom must be a student, preferably an undergraduate student if the accused is an undergraduate student. A faculty member will chair all hearings and reviews.

d. Selection of members to a specific AIB will avoid conflicts of interest with the student (e.g., AIB member being from the student’s department). A board member may recuse themselves or be recused upon the request of the accused student/referring party if there is a perceived conflict of interest.

F. Sanctions

1. Sanctions Imposed through Documented Agreement

The following sanctions may be agreed upon by the student and faculty member/administrator through Documented Agreement and can be faculty/administrator imposed. All grade reductions require the approval of the instructor of record. If the work is graded by a committee, a grade reduction requires the approval of the majority of the committee.

a. Single Grade Reduction: Reduction of a grade or failure on project, examination, quiz or other academic exercise on which the student is alleged to have cheated.

b. Course Grade Reduction: Reduction of course grade or failure in the course. If the violation involves a project spanning multiple courses (such as a dissertation or multiple-semester internship), the grade reduction may apply to all courses involved.

c. Constructive or Educational Task: A task that requires students to examine their dishonest behavior and that may benefit the student, campus, or community.

d. Letter of Reprimand: A reprimand letter may be issued indicating that the student has been found in violation of an academic policy and that failure to comply with policies in the future may result in further disciplinary action to be handled as a subsequent offense. The letter of reprimand will remain in effect for the period of time specified by the individual or board hearing the case.

e. Other: Sanctions deemed appropriate and tailored to a specific violation as agreed to by the student and faculty member/administrator.

2. Sanctions Imposed through Formal Adjudication

In addition to the above, the following sanctions may result from a Hearing by Department Chair and/or AIB.

a. Disciplinary Probation: Disciplinary probation, which is for the period of time specified by the individual or board hearing the case, is an indication that a student’s status at the university is seriously jeopardized. If the student is found in violation of another IUP policy during the probationary period, a more serious sanction will be levied, which may include involuntary withdrawal from part of IUP’s academic or other programs, suspension, or expulsion from the university.

b. Involuntary Withdrawal from Part of IUP’s Academic or Other Programs: A student may be denied the right to participate in some IUP program(s). Such involuntary withdrawal might be imposed on either a temporary or permanent basis.

c. Suspension: A student may be suspended from the university for a specified period of time, not to be less than the remainder of the current semester. Suspension requires that students remove themselves from university premises, not attend classes or social activities, and not be present on university property (including residence halls) or Student Cooperative Association property during the period of suspension.

d. Expulsion: Expulsion may be considered under any of the following circumstances: when there is a very serious violation of the Academic Integrity Policy, When a student is proven to have violated the Academic Integrity Policy on more than one occasion, or when a student appears before the board after already having been suspended. Expulsion from the institution is permanent. Appeals to the sanction of expulsion must be submitted to the Office of the President.

e. Rescission of a Degree: Students may have their degree rescinded if found to have plagiarized or not to have conducted their research on their thesis.

Sanctions of expulsion and/or rescission of a degree can be recommended by a Department Chair of AIB but can only be imposed by the President/designee. A sanction of suspension can be imposed by the Provost/designee.

3. Previous Violations

Information about prior violations will not be used to determine whether a student violated the policy in the current case. Information on prior violations will only be used in determining the appropriate sanction. Students with multiple academic integrity violations on record may be
subject to additional sanctions, including suspension or expulsion from
the university. A student who has had previous violations on record will be
heard by an AIB to determine if additional sanctioning is warranted.

G. Appeal Procedures
1. Written appeals of a Department Chair’s or AIB’s hearing decision or
sanction may be filed by a student within ten (10) days of receiving the
report and are limited to the following grounds:
   a. Denial of a fair and reasonable hearing (e.g., procedural errors that
      likely impacted hearing outcome).
   b. New evidence (applies when there is an acceptable reason why the
      information was not presented at the original hearing).
   c. Excessively harsh sanctions.
2. All appeals of expulsion or degree rescission must be submitted to the
   office of the Provost. All other appeals must be submitted to the Office of
   the Provost.
3. The ten (10) day requirement may be waived where extenuating circum-
   stances prevail and only if the grounds for appeal are met.
4. The person submitting the appeal must include in the written appeal the
   reason(s) for the appeal, the supporting facts, and the requested solution.
   Appeals will not be accepted by third parties on behalf of the party ap-
  pealing the decision. The appeal must include the signature of the person
   submitting the appeal. An appeal is not a rehearing of the matter and will
   not have merit simply because the person submitting the appeal disagrees
   with the outcome.
5. In the case of an appeal of expulsion or degree rescission, the Provost/
   designee, or the President/designee in the case of a appeal of expulsion or
   degree rescission, will issue a decision on all appeals from an AIB report or
   review within ten (10) days absent extenuation circumstances. The appeal
   may be sustained, denied, sanctions may be modified, or the matter may
   be referred for a new hearing.

H. Operational Notes
1. In cases where a violation is alleged at, or near, the end of the semester
   and resolution by Documented Agreement or Formal Adjudication cannot
   be completed before grades are submitted, the faculty member should sub-
   mit a grade of “Incomplete” (I) for the student. The faculty member must
   initiate formal notification of the academic integrity violation to the student.
   The “I” grade will remain on the student’s record until the case has been
   resolved. Once the case has been resolved, the “I” grade will be replaced
   with the appropriate grade.
2. If the violation is alleged during the semester when classes are in session,
   the accused student should continue attending all classes and continue to
   complete course requirements while the academic integrity case is pending.
3. Conversion of a Withdrawal: Individual course withdrawal initiated by
   a student before resolution of an academic integrity case will not remain
   on the transcript if the student is found to have violated the policy and
   the resolution of the referral is the assignment of a grade. If the student
   has withdrawn and has been found to have violated this policy, another
   grade, including an “F”, may be placed on the transcript. If the student has
   withdrawn and has not been found to have violated this policy, the “W” will
   remain on the transcript.
4. The 10-day time frame within the policy is a period of time violation
   intended to reasonably ensure a swift response. A faculty member/admin-
   istrator, student, or Provost/designee may request an extension of time for
   good cause (e.g., alleged violation occurring at the end of the semester or
   during summer or winter session/break); this extension may be granted by
   the Provost/designee.
5. The university may withhold transcripts, grades, and diplomas or take
   other appropriate actions necessary to preserve its ability to enforce its
   rules.

Questions concerning the Academic Integrity Policy and Procedures can be
directed to the Office of the Provost. More information about Academic In-
tegrity Procedures can be found online at the Office of the Provost website
(www.iup.edu/academic-integrity).

Research Integrity Policy
IUP is committed to the highest ethical standards with regard to scholarship
conducted by all members of the university community, including faculty,
managers, administrators, staff, and students (both undergraduate and grad-
uate). Therefore, it is imperative that all those engaged in research—includ-
ing undergraduate students—be aware of and adhere strictly to established
policies and procedures designed to respond to any allegations or apparent
instances of fraud or misconduct related to research activities.

IUP will deal forthrightly with allegations of misconduct associated with
research. The university will conduct an inquiry and, if warranted, an inves-
tigation of any possible misconduct by IUP faculty, managers, administra-
tors, staff, and students conducting research. If misconduct is determined
to have taken place, appropriate disciplinary action will be taken.

Additional policies are in place to protect research involving human sub-
jects or animals and to ensure compliance with state and federal law.

Students engaged in research can find more information about IUP’s
research policies, procedures, training, and other resources at www.iup.edu/
research/policies.

Final Examination Policies
The final examination week is part of the regular academic program and
must be incorporated into each instructor’s course plan for the semester.
Final examinations are not the only legitimate type of terminating activity,
and therefore, the instructor may choose an appropriate activity that con-
forms to course objectives.

The terminating activity shall take place only at the time and location as-
signed by the Office of the Registrar. Unless granted an excused absence,
the faculty member responsible for the course must be present to direct the
terminating activity. Faculty members may require student participation in the
terminating activity.

Faculty members who do not schedule or do not attend the terminating ac-
tivity for a course may be subject to disciplinary action commensurate with
unexcused absences. Once the final examination has been set by the Office
of the Registrar, changes and absences must be approved by the instructor’s
dean. Faculty members are only obligated to offer a makeup in cases where
officially scheduled exams are in conflict. Where such conflicts exist during
the examination period, the following general rules apply:
1. The higher-numbered course takes precedence. Thus, a student enrolled
   in GEOG 102 and ECON 325 would take the ECON 325 exam at the
   assigned time and the makeup in GEOG 102.
2. If courses in conflict are the same level and number, an alphabetical
determination by full name of the department, not its acronym, will be
made. For example, a student enrolled in MATH (Mathematics) 350
and MGMT (Management) 350 would take the MGMT 350 exam at
the assigned time and a makeup in MATH 350.

NOTE: For stand-alone lab courses that assign letter grades or for lab sec-
tions assigned to lecture courses, final exams/culminating activities may be
given the week prior to the Registrar’s final exam schedule.

Maximum Number of Exams on One Day/Conflicts
A student may not be required to take more than three final exams on
any one regularly scheduled examination day. For any exam over three, a
makeup exam must be scheduled by the instructor for the student, at his or
her request, into another mutually agreeable regular final examination pe-
riod. The rules determining conflict resolution (listed above) will determine
which exam or exams a student may request as makeups.

Night Exam Policy
All tests, examinations, and quizzes should normally be administered during
the prescribed course hours. Deviations to allow night exams for valid
educational reasons, within the guidelines listed below, must be approved by
the department and the dean. This policy does not include final exams.
For more information on final exams, refer to the final exam policy.

Guidelines
1. Night exams can only be scheduled on Monday through Thursday
   evenings within the 6:00-10:00 p.m. time period.
2. Appropriate physical facilities must be arranged in advance without
   encroachment upon other authorized university functions.

Research Integrity Policy
IUP is committed to the highest ethical standards with regard to scholarship
conducted by all members of the university community, including faculty,
managers, administrators, staff, and students (both undergraduate and grad-
uate). Therefore, it is imperative that all those engaged in research—includ-
ing undergraduate students—be aware of and adhere strictly to established
policies and procedures designed to respond to any allegations or apparent
instances of fraud or misconduct related to research activities.

IUP will deal forthrightly with allegations of misconduct associated with
research. The university will conduct an inquiry and, if warranted, an inves-
tigation of any possible misconduct by IUP faculty, managers, administra-
tors, staff, and students conducting research. If misconduct is determined
to have taken place, appropriate disciplinary action will be taken.

Additional policies are in place to protect research involving human sub-
jects or animals and to ensure compliance with state and federal law.

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unexcused absences. Once the final examination has been set by the Office
of the Registrar, changes and absences must be approved by the instructor’s
dean. Faculty members are only obligated to offer a makeup in cases where
officially scheduled exams are in conflict. Where such conflicts exist during
the examination period, the following general rules apply:
1. The higher-numbered course takes precedence. Thus, a student enrolled
   in GEOG 102 and ECON 325 would take the ECON 325 exam at the
   assigned time and the makeup in GEOG 102.
2. If courses in conflict are the same level and number, an alphabetical
determination by full name of the department, not its acronym, will be
made. For example, a student enrolled in MATH (Mathematics) 350
and MGMT (Management) 350 would take the MGMT 350 exam at
the assigned time and a makeup in MATH 350.

NOTE: For stand-alone lab courses that assign letter grades or for lab sec-
tions assigned to lecture courses, final exams/culminating activities may be
given the week prior to the Registrar’s final exam schedule.

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A student may not be required to take more than three final exams on
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makeup exam must be scheduled by the instructor for the student, at his or
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educational reasons, within the guidelines listed below, must be approved by
the department and the dean. This policy does not include final exams.
For more information on final exams, refer to the final exam policy.

Guidelines
1. Night exams can only be scheduled on Monday through Thursday
   evenings within the 6:00-10:00 p.m. time period.
2. Appropriate physical facilities must be arranged in advance without
   encroachment upon other authorized university functions.
The following procedures are designed to ensure the right of due process.

4. No night exam can take precedence over a regularly scheduled class.
5. Arrangements for nonpunitive makeup exams at a mutually agreeable
   time must be available for students who cannot attend the night exam.
6. For each hour of night exams, an hour of regularly scheduled class
time will be canceled. Such cancellations are prohibited for two class days
immediately preceding or immediately following holiday and/or
vacation periods and/or semester terminations, as published in the
academic calendar.

Class Disruptions
Indiana University of Pennsylvania respects the rights of instructors to teach
and students to learn while supporting the principle of freedom of expres-
sion. Maintenance of these rights requires classroom conditions that do not
impede the learning process.

Instructors have the right and responsibility to maintain a proper learning
environment in the classroom. As integral members of this partnership,
students are expected to participate actively in the learning experience and
must do so in an appropriate manner.

Disruptive conduct in the classroom that interferes with the instructor’s
performance of their professional functions, or that undermines the integrity
of students learning, will not be tolerated.

Civil expression and disagreement with the course instructor or other
students in the class during times when the instructor permits discussion are
not considered disruptive conduct.

The instructor’s syllabus will serve as the primary guideline for defining
disruptive conduct in any given course.

In addition to any syllabus specifications, disruptive conduct includes, but is
not limited to:

- Students who routinely enter class late or depart early;
- Students who repeatedly talk in class without being called upon;
- Students who continually interrupt lectures;
- Students who refuse to comply with an instructor’s requests to stop disrup-
tive conduct;
- Students whose cell phones repeatedly ring and/or emit and audible sound
during class or students who repeatedly text during class;
- Students who harass an instructor or classmate;
- Students who threaten an instructor or classmate, physically or verbally, or
display aggressive behavior;
- Students who disruptive conduct otherwise violates university policies
   including the Student Conduct Policies and Procedures and/or the Sexual
   Misconduct Policy.

This disruptive conduct may result in instructor intervention and/or discri-
minatory action.

The following procedures are designed to ensure the right of due process
for both instructor and student, as well as the university’s right to impose
penalties for infractions:

1. The instructor will apprise the student of the inappropriateness of the
disruptive conduct and ask that the disruptive conduct cease.
2. If disruptive conduct persists, the instructor may:
   a. refer the student to campus support services, and/or
   b. remove the student from class for one class meeting and inform the
      student to contact the instructor prior to the next scheduled class meeting.
3. If the disruptive conduct persists and negatively impacts the learning of
   the other students, the instructor may request that the student be removed
   from class for more than one class period. To do this, the instructor will
   inform the department chair immediately and submit a signed and dated
   written statement of the incident to the department chair within two (2)
   academic calendar days. Within two (2) academic calendar days, the depart-
   ment chair will hold a meeting(s) with the instructor and the student to
   review the matter. If the student and instructor cannot reach an agreement,
   the instructor may refer the student for a violation of the Academic Integrity
   Policy.

If there is any suggestion of violence, instructors always should err on
the side of safety by calling University Police. If the disruptive conduct
cannot be mitigated by the above procedure, or if the disruptive conduct
continues or magnifies negatively impacting the learning of fellow students,
the instructor may, in consultation with the department chair, and with the
consent of their academic dean, refer the case to the Office of Student Con-
duct for adjudication under the Code of Student Conduct and Procedures.

The university can impose interim measures, as appropriate, pursuant to the
code of Student Conduct and Procedures.

Note: For this policy, the term “instructor” may include teaching assistants
and guest lecturers.

IT Acceptable Use Policy

Purpose: This policy addresses the use of information technology resources
(“IT resources”) at Indiana University of Pennsylvania (“the university”). IT
resources are intended to support the university’s instructional, research,
and administrative operations.

Scope: This policy applies to all users of IT resources owned or operated by
Indiana University of Pennsylvania. Users include students, faculty, staff,
contractors, and guest users of computer network resources, equipment, or
connecting resources.

Objective: The objective of this policy is to create a framework to ensure
that IT resources are used in an appropriate fashion and support the univer-
sity’s mission and institutional goals.

Policy: Use of the university’s IT resources is a privilege and signifies
agreement to comply with this policy. Users are expected to act responsi-

bly and follow the university’s policies and any applicable laws related to
the use of IT resources. This policy provides regulations to ensure IT resources
are allocated effectively.

While the university recognizes the role of privacy in an institution of
higher learning and will endeavor to honor that ideal, there should be no
expectation of privacy of information stored on or sent through university-
owned IT resources, except as required by law. For example, the university
may be required to provide information stored in IT resources to someone
other than the user as a result of court order, investigatory process, or in re-
response to a request authorized under Pennsylvania’s Right-to-Know statute
(65 P.S. §67.101 et seq.). Information stored by the university may also be
viewed by technical staff working to resolve technical issues.

Definitions: For the purposes of the IUP Acceptable Use of IT Resources
Policy (“AUP”), IT resources include the University computer network, all
University-owned devices and all University provided software systems
regardless of what computer network is being used. This is inclusive of all
content transmitted over the University computer network by any device
regardless of ownership.

The National Institute of Standards and Technology (NIST) defines Person-
ally Identifiable Information (PII) as any information about an individual,
including (1) any information that can be used to distinguish or trace an
individual’s identity, such as name, social security number, date and place of
birth, mother’s maiden name, or biometric medical, educational, financial,
and employment information.

Responsibilities of Users of IT Resources:

- Respect the intellectual property of authors, contributors, and publishers
  in all media.
- Protect user identification, password information, and the system from
  unauthorized use.
- Adhere to the terms of software licenses and other contracts. Persons
  loading software on any university computer must adhere to all licensing
  requirements for the software. Except where allowed by university site
  licenses, the copying of university-licensed software for personal use is a
  violation of this policy.
- Comply with federal, state, and local laws, relevant university personal
  conduct regulations, and the terms and conditions of applicable collec-
tive bargaining agreements. Applicable laws include, but are not limited
to, those regulating copyright infringement, copyright fair use, libel,
Prohibited Uses of IT Resources:

- Providing false or misleading information to obtain or use a university computing account or other IT resources
- Unauthorized use of another user’s account and attempting to capture or guess passwords of another user
- Attempting to gain or gaining unauthorized access to IT resources or to the files of another user. Attempting to access restricted portions of the network, an operating system, security software, or other administrative applications without authorization by the system owner or administrator
- Interfering with the normal operation, proper functioning, security mechanisms, or integrity of IT resources
- Use of IT resources to transmit abusive, threatening, or harassing material or other communications prohibited by law
- Copyright infringement, including illegal sharing of video, audio, software, or data
- Excessive use that overburdens or degrades the performance of IT resources to the exclusion of other users. This includes activities which unfairly deprive other users of access to IT resources or which impose a burden on the university. Users must be considerate when utilizing IT resources. The university reserves the right to set limits on a user through quotas, time limits, and/or other mechanisms.
- Intentionally or knowingly installing, executing, or providing to another a program or file on any of the IT resources that could result in damage to any file, system, or network. This includes, but is not limited to, computer viruses, trojan horses, worms, spyware, or other malicious programs or files.

Procedures: Violations of this policy will be reported to appropriate levels of administrative oversight, depending on the statutes and policies violated. Suspected violations of federal and state statutes and local ordinances shall be reported to the director of Public Safety (chief of campus police) for official action.

Nonstatutory violations of the Acceptable Use Policy, such as “excessive use,” may be reported to the chief information officer, the associate vice president for Human Resources, the Office of Student Conduct, and/or the director of Public Safety (chief of campus police).

A university employee or student who violates this policy risks a range of sanctions imposed by relevant university disciplinary processes, including denial of access to any or all IT resources. He or she also risks referral for prosecution under applicable local, state, or federal laws.

The University Senate—via the Library and Educational Services Committee—is responsible for recommending the university’s Acceptable Use Policy. Questions regarding the applicability, violation of the policy, or appropriate access to information should be referred to the chief information officer.
university will be allowed to register for courses at other State System universities. The visiting student priority level for registration will be determined by each university.

4. All credits and grades accrued at other System universities shall be accepted in full by the home university and thereafter treated as home university credits, residency, and grades.
   a. It is the responsibility of the student to work with the student’s advisor at the home institution regarding applicability of credits toward graduation requirements at the home institution consistent with State System procedures.
   b. It is the responsibility of the student to complete the Visiting Student Notification form and submit to the home institution prior to enrolling in courses at another State System institution.
   c. Students cannot use the Visiting Student Program to repeat courses. Students cannot use the Visiting Student Program for internship or practica that are required for licensure or certification without the express written permission of their appropriate university officials at the home university and placement availability at the requested institution.

5. The student shall register at, and pay tuition and fees to, the State System university visited. A student wishing to divide a course load between two institutions during the same term shall register and pay appropriate tuition and fees at both universities.

6. The Office of the Chancellor will work with universities to establish and publish procedures to identify visiting students such that financial aid, residency, eligibility for honors, eligibility of athletics, and credits to graduation are assured.
Graduation Requirements

Undergraduate students at IUP may pursue programs of study in any one of six undergraduate colleges: the Eberly College of Business and Information Technology, the College of Education and Communications, the College of Fine Arts, the College of Health and Human Services, the College of Humanities and Social Sciences, or the College of Natural Sciences and Mathematics. A student may earn the degree of bachelor of arts, bachelor of science, bachelor of fine arts, or bachelor of science in education. The College of Education and Communications offers an associate of arts degree program.

To meet graduation requirements in a baccalaureate or an associate degree program, the student must satisfy all of the degree requirements, which fall into three categories: (1) university requirements, (2) college requirements, and (3) department requirements. Requirements of the latter two categories may be found under the college and the department in which the student is pursuing a program of study.

University requirements for graduation in all curricula consist of Liberal Studies requirements, residency requirements in regard to awarding of degrees, and the credit and cumulative grade point average requirements.

A student may earn a second undergraduate baccalaureate degree by completing a minimum of 30 additional credits. A student may complete one or more secondary majors while earning the primary degree or may complete a dual baccalaureate degree.

Academic Life during the Freshman Year

During the orientation, students meet with orientation faculty advisors to plan a program of courses for their first year. This careful planning considers students’ individual preferences, the results of placement testing, and degree program requirements. In the beginning of their first semester, students are expected to look up the name of their individual faculty advisor and arrange meetings and remain in touch to discuss progress and courses.

With a typical freshman academic schedule, students progress both in the university-wide Liberal Studies program and in their intended majors.

Four Liberal Studies courses are typically taken by freshmen, and all students are expected to complete these courses during their first year. These are ENGL 101 Composition I, a Humanities History course, a course from a list of Fine Arts selections, and a Dimensions of Wellness course from those selections. ENGL 101 enhances skills in written expression that are essential to success at the university. A history course builds critical thinking skills and provides a foundation of knowledge for subsequent courses. Whichever fine arts course is chosen encourages appreciative participation in campus cultural life. Courses in the Dimensions of Wellness component address the many facets of wellness that contribute to health.

Professors teaching these courses work cooperatively with each other and with Student Affairs Division staff members to integrate class work with campus lectures and arts events. Study skills development courses and tutoring resources are available.

Credits and Cumulative Grade Point Average Requirement

Each student must complete a minimum of 120 credits to graduate, including a minimum of 40 credits and a maximum of 48 in Liberal Studies (all on a passing basis) and must have a 2.0 (C grade) cumulative GPA and a 2.0 (C grade) GPA in his/her major and/or minor field. Some programs require more than 120 credits for graduation.

Liberal Studies

All students must fulfill the requirements of the university’s Liberal Studies program. This involves a minimum of 40 credits divided among Learning Skills, Knowledge Areas, Liberal Studies Electives, and Global and Multicultural Awareness. The number of credits may rise slightly depending on student choices. The maximum number of Liberal Studies credits is 48. Different colleges and sometimes departments within colleges may have specific variations as to how these Liberal Studies requirements are to be met.

Liberal Studies provides the broad vision and understanding that enable individuals to enjoy full, rich lives and to play constructive roles in their communities. The goals for Liberal Studies include (1) the development of important modes of thinking and intellectual skills: critical thinking, literacy, understanding numerical data, historical consciousness, scientific inquiry, ethical perception, and aesthetic sensitivity; (2) the acquisition of a body of knowledge or understanding essential to an educated person; and (3) an understanding of the physical, as well as the intellectual, nature of human beings.

Liberal Studies Requirements

Note: Specific courses may be required or recommended by colleges or major departments; see degree program outlines for specifications.

Additional courses may be added to some categories during the next academic year. See the Liberal Studies website www.iup.edu/liberal for the most current information.

Learning Skills: English Composition: Two Courses

<table>
<thead>
<tr>
<th>ENGL 101 Composition I</th>
<th>3cr</th>
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</thead>
<tbody>
<tr>
<td>ENGL 202 Composition II (sophomore standing)</td>
<td>3cr</td>
</tr>
</tbody>
</table>

Learning Skills: Mathematics:

| MATH 101 Foundations of Mathematics | 3cr |
| MATH 105 College Algebra | 3cr |
| MATH 107 Business Mathematics | 3cr |
| MATH 108 Application for Business Mathematics | 1cr |
| MATH 121 Calculus I for Natural and Social Sciences | 4cr |
| MATH 125 Calculus I/Physics, Chemistry, Mathematics | 3cr |
| MATH 151 Elements of Mathematics I (1) | 3cr |
| MATH 217 Probability and Statistics | 3cr |

(1) Restricted to designated majors

Knowledge Area: Humanities: Three Courses

| FIAR 101 Introduction to Fine Arts | 3cr |
| MUHI 102 Music and Literature Survey (music education majors only) | 3cr |

*One course in history, one in literature, and one in philosophy or religious studies.

Knowledge Area: Fine Arts: One Course from List

| ARHI 101 Introduction to Art | 3cr |
| DANC 102 Introduction to Dance | 3cr |
| FIAR 101 Introduction to Fine Arts | 3cr |
| MUHI 101 Introduction to Music | 3cr |
| MUHI 102 Music and Literature Survey (music education majors only) | 3cr |
THTR 101 Introduction to Theater 3
THTR 161 Introduction to Theater: Interpersonal Practices 3

Knowledge Area: Natural Science: One Option 7-8cr

Option I: Two-Semester Laboratory Course Sequence 8cr
Two courses with laboratories (4cr each) from the Natural Science Laboratory course list. These two courses do not have to be taken in sequence.

Knowledge Area: Natural Science: One Option 7-8cr

Option I: Two-Semester Laboratory Course Sequence 8cr
Two courses with laboratories (4cr each) from the Natural Science Laboratory course list. These two courses do not have to be taken in sequence.

Option II: One Laboratory plus One Non-laboratory Course 7cr
One course with laboratory (4cr) from the Natural Science Laboratory course list and one course (3cr) from Natural Science Non-laboratory course list.

Natural Science Laboratory Courses:
BIOL 103 Life on Earth 4
BIOL 104 Human Biology: How the Human Body Works 4
BIOL 106 Human Genetics and Health 4
CHEM 101 College Chemistry I 4
CHEM 102 College Chemistry II 4
CHEM 111 General Chemistry I 4
CHEM 112 General Chemistry II 4
CHEM 113 Advanced General Chemistry I 4
CHEM 114 Advanced General Chemistry II 4
GEOS 101/102 The Dynamic Earth with lab 4
GEOS 103/104 Oceans and Atmospheres with lab 4
GEOS 105/106 Exploring the Universe with lab 4
GEOS 111 Earth and Environmental Systems 4
GEOS 201 Foundations of Geology 4
GEOS 203 Surficial Processes 4
GEOS 204 Historical Geology 4
PHYS 111/121 Physics I with lab 4
PHYS 112/122 Physics II with lab 4
PHYS 131/141 Physics I with lab (calculus) 4
PHYS 132/142 Physics II with lab (calculus) 4
PHYS 151/161 Medical Physics with lab 4
SCI 105 Physical Science I 4
SCI 107/117 Chemistry for Everyone with lab 4

Natural Science Non-laboratory Courses:
BIOL 107 Introduction to Forensic Biology 3
BIOL 115 Biotic Diversity of North America 3
BIOL 117 Understanding HIV Biology and AIDS 3
BIOL 118 The History of Pain 3
BIOL 119 Emerging Diseases 3
CHEM 105 The Forensic Chemistry of CSI 3
GEOS 101 The Dynamic Earth 3
GEOS 103 Oceans and Atmospheres 3
GEOS 105 Exploring the Universe 3
GEOS 119 Geology of Energy Resources 3
GEOS 150 Geology of National Parks 3
GEOS 151 The Age of Dinosaurs 3
GEOS 152 Physical Resources of the Earth 3
GEOS 154 Human Exploration of Space 3
GEOS 155 Geology of Climate Change 3
GEOS 156 Geology of Natural Disasters (GMA) 3
PHYS 101 Energy and Our Environment 3
PHYS 105 The Physics of Light and Sound 3
PHYS 111 Physics I Lecture 3
PHYS 112 Physics II Lecture 3
PHYS 131 Physics I Lecture (calculus) 3
PHYS 132 Physics II Lecture (calculus) 3
PHYS 151 Medical Physics Lecture 3
SCI 107 Chemistry for Everyone 3
SCI 113 Physics in Science Fiction 3

Knowledge Area: Social Science: Three Courses from List* 9cr
No course prefix may be used more than once

ANTH 110 Contemporary Anthropology (GMA) 3
ANTH 211 Cultural Anthropology (GMA) 3
ANTH 213 World Archaeology 3
CRIM 101 Crime and Justice Systems 3
ECON 101 Basic Economics 3
ECON 121 Principles of Macroeconomics 3
GEOG 101 Geography: Human Environment Interaction 3
GEOG 102 Geography of US and Canada 3
GEOG 104 World Geography: Global Context (GMA) 3
JRN 105 Journalism and the Mass Media 3
PLSC 101 World Politics (GMA) 3
PLSC 111 Power and Democracy in America 3
PSYC 101 General Psychology 3
RGPL 103 Global Cities: Issues in Planning and Development [same as GEOG 103] (GMA) 3
SOC 151 Principles of Sociology 3
SOC 161 Foundations of Sociology: Social Relations in Groups and Organizations (GMA) 3
SOC 231 Contemporary Social Problems 3

Knowledge Area: Dimensions of Wellness: One Course 3cr

COMM 143 Media Wellness 3
COSC 143 Cyber Wellness 3
ECON 143 Financial Wellness 3
FCSE 143 Financial Wellness 3
FDNT 143 Current Issues in Nutrition and Wellness 3
FIN 143 Financial Wellness 3
KHSS 143 Contemporary Women’s Wellness 3
KHSS 143 Physical Well-Being 3
KHSS 143 Wellness through Strength Training 3
NURS 143 Healthy People—Promoting Wellness 3

An alternate method of fulfilling this requirement is the completion of one year of Military Science/ROTC: MLSC 101 Introduction to Military Science and Lab (2cr) and MLSC 102 Fundamentals of Military Science and Lab (2cr). Verified successful completion of Basic Training in any US Armed Service is transferable as MLSC 101 and 102. MLSC 203 and 204 may be substituted for MLSC 101 and 102.

*Students must fulfill this requirement by completing one course. Most of the courses will at the same time fulfill other requirements set by Liberal Studies or in some cases by a college or department. These include courses from Natural Science, Social Science, and Liberal Studies Electives and are identified by GMA following their titles.

In addition, the following courses can be used to fulfill Global and Multicultural Awareness requirement only:

Global and Multicultural Awareness: 3cr*

One Course from the list

Fulfills Global and Multicultural Awareness requirement only:

ECON 338 Poverty in Africa 3
ECON 339 Economic Development I 3
ECON 345 International Trade 3
ECON 346 International Finance 3
GEOG 252 Geography of Latin America 3
MGMT/MKTG 350 International Business 3
MGMT 451 International Management 3
MGMT 454 International Competitiveness 3
PLSC 285 Comparative Government II: Non-Western Political Systems 3
SPAN 244 Modern Mexico 3
SPAN 344 Spanish-American Cultures from the 19th Century to the Present [taught in Spanish] 3

*No course prefix may be used more than once
Certain Study Abroad programs in Global and Multicultural Awareness areas are offered (information is in the respective catalog section; further information is available in the Office of International Education).

<table>
<thead>
<tr>
<th>Liberal Studies Electives:</th>
<th>3-9cr</th>
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<tbody>
<tr>
<td>• No course carrying the student’s major prefix may be used.</td>
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<tr>
<td>• No course prefix may be used more than once, except for</td>
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<tr>
<td>intermediate-level foreign language prefixes (CHIN, FRNC,</td>
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<tr>
<td>GRMN, JAPN, KORE, and SPAN), which may be used twice.</td>
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<tr>
<td>• Refer to program for specific requirements.</td>
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</tbody>
</table>

See list of Global and Multicultural Awareness courses, some of which may be used as Liberal Studies electives.

<table>
<thead>
<tr>
<th>Global Citizenship</th>
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<tbody>
<tr>
<td>ANTH 271</td>
<td>Cultural Area Studies: Africa (GMA)</td>
</tr>
<tr>
<td>ANTH 272</td>
<td>Cultural Area Studies: China (GMA)</td>
</tr>
<tr>
<td>ANTH 273</td>
<td>Cultural Area Studies: Southeast Asia (GMA)</td>
</tr>
<tr>
<td>ANTH 274</td>
<td>Cultural Area Studies: Latin America (GMA)</td>
</tr>
<tr>
<td>ANTH 310</td>
<td>Voyages of Discovery (GMA)</td>
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<tr>
<td>ANTH 314</td>
<td>Contemporary Native American Cultures (GMA)</td>
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<tr>
<td>ANTH 350</td>
<td>Anthropology of Gender (GMA)</td>
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<tr>
<td>ANTH 365</td>
<td>Native North American Religions (GMA)</td>
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<tr>
<td>ANTH 370</td>
<td>Latinos and Diasporas (GMA)</td>
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<tr>
<td>ANTH 430</td>
<td>Anthropology of Food (GMA)</td>
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<tr>
<td>ARHI 205</td>
<td>Renaissance through Modern Art</td>
</tr>
<tr>
<td>CDFR 218</td>
<td>Child Development</td>
</tr>
<tr>
<td>CDFR 224</td>
<td>Marriage and Family</td>
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<tr>
<td>FCSE 101</td>
<td>Principles of Microeconomics</td>
</tr>
<tr>
<td>ENGL 396</td>
<td>The Literature of Emerging Nations (GMA)</td>
</tr>
<tr>
<td>GEOG 230</td>
<td>Cultural Geography</td>
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<tr>
<td>GEOG 231</td>
<td>Economic Geography (GMA)</td>
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<tr>
<td>GEOG 253</td>
<td>Geography of Europe</td>
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<td>GEOG 254</td>
<td>Geography of Russia, Central Eurasia, and Eastern Europe (GMA)</td>
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<td>GEOG 255</td>
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<td>GEOG 256</td>
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<td>HIST 313</td>
<td>Europe Since 1945: Division, Revolution, and Unity</td>
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<td>HIST 365</td>
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<td>HIST 385</td>
<td>People in Nature</td>
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<td>LAS 370</td>
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<td>Musical Cultures from Around the World (GMA)</td>
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<td>History of Popular Music Since 1945</td>
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<tr>
<td>PHIL 232</td>
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<td>Ancient Greek Philosophy</td>
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<td>RLST 380</td>
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<tr>
<td>RLST 385</td>
<td>Christianity (GMA)</td>
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<th>Information Literacy</th>
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<td>Samauri and Gongfu Heroes (GMA)</td>
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<tr>
<td>ARHI 205</td>
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<td>COMM 101</td>
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<td>HIST 240</td>
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<td>Jihad and the Origins of Islamist Movements (GMA)</td>
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<td>HIST 348</td>
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<td>HIST 360</td>
<td>History of Pennsylvania</td>
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<td>HIST 365</td>
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<td>HIST 374</td>
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<td>HIST 433</td>
<td>China 1300-1800: The Late Imperial Age (GMA)</td>
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<td>HIST 434</td>
<td>Modern China 1800-present (GMA)</td>
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<td>HIST 436</td>
<td>Japan 1500-1850: Early Modern Japan (GMA)</td>
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<td>MUHI 301</td>
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<td>MUHI 302</td>
<td>Music History II</td>
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<td>PLSC 251</td>
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<td>PLSC 348</td>
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<td>RLST 385</td>
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<td>RLST 388</td>
<td>Interpreting the Bible</td>
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<td>SAFE 100</td>
<td>The Science of Living Safely</td>
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<td>SOC 269</td>
<td>Sociology of Deviance</td>
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<td>THTR 313</td>
<td>American Theater Between the Wars</td>
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Oral Communication

CHIN 102 Elementary Chinese II (GMA) 4
CHIN 201 Intermediate Chinese (GMA) 4
COMM 261 Teamwork and Communications 3
FRNC 102 Basic French II 4
FRNC 201 Intermediate French (2) 4
FRNC 220 Intermediate French Conversation 3
GRMN 102 Elementary German II 4
GRMN 201 Intermediate German 4
GRMN 220 Intermediate German Conversation 3
ITAL 201 Intermediate Italian III 3
ITAL 202 Intermediate Italian IV 3
JAPN 102 Elementary Japanese II (GMA) 4
JAPN 201 Intermediate Japanese (GMA) 4
JRNL 361 Presentation Making 3
KORE 102 Elementary Korean II 4
KORE 201 Intermediate Korean 4
RLST 385 Christianity 3
RLST 388 Interpreting the Bible 3
SPAN 201 Intermediate Spanish II 4
SPAN 202 Intermediate Spanish (2) 4
SPAN 220 Intermediate Spanish Conversation 3
THTR 132 Introduction to Acting 3
THTR 313 American Theater Between the Wars 3

Quantitative Reasoning

ECON 122 Principles of Microeconomics 3
ECON 239 Economics of Sports 3
FCSE 315 Consumer Economics and Family Finance 3
LAS 350 The Mayas: Culture, Literature, and Numbers (GMA) 3
MATH 122 Calculus II for Natural and Social Sciences 3
MATH 126 Calculus II/Physics, Chemistry, Mathematics 3
MATH 152 Elements of Mathematics II (1) (specified majors only) 3
MATH 214 Probability and Statistics for Business Majors 3
MATH 216 Probability and Statistics for Natural Sciences 3
MATH 217 Probability and Statistics (1) 3
MATH 225 Calculus II/Physics, Chemistry, Mathematics 3
MATH 341 Differential Equations 3

Scientific Literacy

ANTH 250 Human Origins 3
GEOS 119 Geology of Energy Resources 3
PHIL 330 Philosophy of Science 3
PSYC 310 Developmental Psychology 3
PSYC 330 Social Psychology 3
SAFE 100 The Science of Living Safely 3

Technological Literacy

COSC 101 Computer Literacy 3
COSC 102 Our Digital Earth: Mobile Devices, Web Applications and Geospatial Technology 3
HIST 230 Queer Global History (GMA) 3
HIST 240 Zombies; A Cultural History of Death, Disease, and Technology 3
FMG 101 Computer Literacy 3
LIBR 251 Information Access in the Digital Age 2

Writing across the Curriculum: Minimum of Two “W” Courses

All students must include among the total courses required for graduation a minimum of two designated writing-intensive courses. One of these courses must be in the student’s primary major; the other(s) may be in Liberal Studies, college or major requirements, or free electives. Such courses, which involve extensive use of writing as part of the learning experience, are identified with a W as the first character in the section number (such as MATH 350-W01 History of Mathematics) in the listing of course offerings. For more information, please see the Liberal Studies Courses page.

Eligibility and Application for Graduation

Commencement ceremonies at IUP are in May at the conclusion of the spring semester and in December at the conclusion of the fall semester. Students who have applied for graduation for May and August are invited to attend the May ceremony and are included in the commencement booklet. Students who have applied for graduation for December and January are invited to attend the December ceremony and are included in that commencement booklet.

Students are responsible for knowing and fulfilling the requirements for graduation in their degree program. All students who expect to graduate are required to apply for graduation. Undergraduate students should check the published deadlines for graduation application and should apply on the web at MyIUP (my.iup.edu). Further information on applying for graduation may be obtained at the dean’s associate office of the student’s college.

Degrees will not be posted until approval by the dean’s associate of the student’s college is received in the Office of the Registrar. A diploma and a complimentary official transcript will then be issued provided all financial obligations have been satisfied.

Pre-approval for Transfer Course Work

Students enrolled at IUP who wish to take course work at another institution (either during the summer or regular semesters) must complete an Application for Pre-approval of Course Work at Another College/University before taking the course(s). Only the credits from the course(s) transfer, not the grade; therefore, students cannot use outside course work for IUP’s repeat policy. Only the credits for which students receive the grade of “A,” “B,” or “C” will transfer. If P/F is the only grading option available, there must be either a narrative evaluation from the faculty member certifying that the work was of “C” level or better or notification on the transcript stating that a “P” grade is equal to a “C” grade or better. No more than 60 credits total may be earned at a junior or community college for application toward an IUP degree unless it is part of an articulated agreement. Courses without prior approval are taken at the risk of the student; there is no obligation on the part of any officer of this university to accept or transfer such credit.

Forms for approval of off-campus course work are available online at www.iup.edu/registrar/howto. Click on Pre-approval for Coursework at Another College or University. Full directions on the form outline the steps involving the transfer evaluation, student’s advisor, and college dean or designee. After completing off-campus course work, students should have the institution at which the work was taken send a final official transcript directly to IUP, Transfer Services, 120 Sutton Hall, 1011 South Drive, IUP, Indiana, PA 15705. Copies of transcripts that are opened or unsealed will not be accepted.

Re-evaluation of Transfer Credit

If a student thinks a course was evaluated incorrectly, a re-evaluation form can be printed by visiting www.iup.edu/creditevaluation. A link on this page will lead to the re-evaluation form.
A re-evaluation form can also be picked up in G26 Sutton Hall. Once the student has the form, it should be filled out, and syllabi for the courses that are under question should be attached to the form. The form, along with the syllabi, can be dropped off in G26 Sutton Hall for review by the Transfer Services coordinator. If syllabi are not provided, the re-evaluation cannot be done.

Program Changes
To ensure their quality and relevance, academic programs at IUP are subject to review and change by duly appointed and responsible university groups. Because of this, the university recognizes that provisions must be made to prevent hardship to students already enrolled in programs if changes later occur in specific or general program requirements. Students affected by changes in programs, policies, and regulations are therefore given the option of following those requirements that are in effect when the student was first enrolled in the program or those in effect at the time of expected graduation. The student cannot, of course, combine chosen elements of the two. Should a question of rule interpretation arise with respect to changes, the student, the student’s advisor, or both should petition the college dean for a decision about which requirements apply.

IUP Residency Requirement for Awarding of Degrees
All students receiving their first baccalaureate degree are required to complete 30 of their last 60 credits in courses at IUP. All students receiving their first associate degree are required to complete 15 of their last 30 credits in courses at IUP.

For an IUP major, minor, or undergraduate certificate, students are required to complete at least 50 percent of required credits in courses at IUP or another State System institution. Junior/Senior year Study Abroad semesters or other formal Articulation agreements in which State System students may reverse-transfer credits back to IUP are exceptions to this policy.

For undergraduate active-duty service members, IUP applies a more military-friendly set of residency requirements, and these students should consult the Military and Veterans Resource Center for more information.

IUP courses include all courses listed in the Undergraduate Catalog and Graduate Catalog.

Non-native Students: English Language Requirements
Non-native students of English who have not been admitted as undergraduate students, either international students or those from the US for whom English is not their first learned language, are required to take an MLW Screening/Placement Test before registration in the first semester attending IUP. The test is administered before registration in both the fall and spring semesters. Results of this test are used to determine for which English course (ENGL 100/MLW, ENGL 101/MLW, ENGL 202/MLW, ENGL 121/MLW) a newly admitted non-native student must register. In addition, any currently enrolled non-native student can take the regularly scheduled test to determine registration for non-MLW English courses. For further information, contact the chair of the English Department, 724-357-2261.

Timely Completion of Degree Requirements
The minimum total credit requirement for a baccalaureate degree at IUP is 120. Students who enroll in degree programs that require more than 120, or who seek the added benefit of a double major, minor, or specialized program, or who change majors should plan their sequence of courses carefully with an advisor. Such students should be alert to the possibility that they may need to carry a heavier-than-average class load to complete the degree in eight semesters. In some situations, summer work or an extra semester may be necessary. The need to enroll in remedial or other preparatory course work or to repeat courses may also affect progress toward a degree.

Undergraduate Catalog Applicability Time Frame
The university reserves the right to modify degree requirements through established governance channels. However, the general policy has been established that the following time frame regulations form the basis for application of the university’s undergraduate degree requirements:

1. A student who has been in continuous registration (fall and spring semesters) or who has interruption(s) of less than two calendar years is governed by the requirements outlined in the catalog in effect at the time of entrance into a degree program (major).
   a. A student who changes majors will be governed by the requirements of the major and/or college at the time of acceptance into the new major, without change of Liberal Studies requirements except as specified by the new major.
   b. A student entering through the nondegree program is governed by the requirements in effect at the time degree candidacy is awarded.
   c. A part-time student may be covered by these provisions of continuous registration to a maximum of 10 years.

2. A student whose education is interrupted by two or more calendar years will be governed by the requirements in effect at the time of readmission to the university. The readmission may carry specific requirements/substitutions necessary to provide for program integrity.

3. The applicability of course work completed more than 10 years before the degree date is subject to review by the dean or designee for evaluation on a course-by-course basis.
The IUP Libraries

Website: www.iup.edu/library
Erik Nordberg, Dean
Kelly Heider, Chair;

The IUP Libraries serve the academic and scholarly needs of students and faculty. Library collections and holdings include 526,098 print volumes, 279,110 electronic books, 263 print periodical subscriptions, and over 80,000 full-text electronic professional journals. The Library subscribes to 359 full-text electronic databases and has a collection of 146,806 microforms. The Libraries’ supplement its holdings via Interlibrary loan services. In addition to the main library, the Orendorff Music Library is located in Cogswell Hall at the Indiana campus. There are also Libraries at each of the regional campuses located in Punxsutawney and Northpointe. All Library resources are available remotely and throughout the Libraries.

The Library faculty offer individual and group instruction as well as several credit-bearing courses and Information Literacy.

Center for Learning Enhancement

The center is an academic support service sponsored by the Department of Developmental Studies. The center provides educational support services in the areas of reading, mathematics, biological and physical sciences, foreign languages, social sciences, study skills, and related areas. See more information in the Department of Developmental Studies section of this catalog.

Cook Honors College

Website: www.iup.edu/honors
Caleb P. Finegan, Director

The Cook Honors College is IUP’s university-wide honors program for undergraduate students of all majors who are accepted into the program. Its goal is to provide a unique educational environment in which students of undergraduate students of all majors who are accepted into the program. Its regional campuses located in Punxsutawney and Northpointe. All Library Cogswell Hall at the Indiana campus. There are also Libraries at each of the regional campuses located in Punxsutawney and Northpointe. All Library collections and holdings include 526,098 print volumes, 279,110 electronic books, 263 print periodical subscriptions, and over 80,000 full-text electronic professional journals. The Library subscribes to 359 full-text electronic databases and has a collection of 146,806 microforms. The Libraries’ supplement its holdings via Interlibrary loan services. In addition to the main library, the Orendorff Music Library is located in Cogswell Hall at the Indiana campus. There are also Libraries at each of the regional campuses located in Punxsutawney and Northpointe. All Library resources are available remotely and throughout the Libraries.

The Library faculty offer individual and group instruction as well as several credit-bearing courses and Information Literacy.

Program Requirements

All first-year students (freshman and transfer students) are required to live in Whitmyre Hall and are encouraged to remain in the honors residence hall throughout their undergraduate career as space permits. Exceptions to the freshman residency requirements will be made only for nontraditional students (students 25 or older or who are married and/or have children).

Application for exemption from this residency requirement should be made in the form of a letter to the Cook Honors College director at the time of application to the program.

Cook Honors College students are required to maintain a cumulative 3.25 GPA. A student who falls below the 3.25 GPA will have one semester of Cook Honors College probation during which he/she may attempt to raise the GPA to 3.25 and remain in good standing. Students who are dismissed from the Cook Honors College due to GPA may apply for readmission after having raised the GPA to acceptable honors standards.

Course Requirements for Students Admitted as Freshmen

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<thead>
<tr>
<th>Course Requirements for Students Admitted as Freshmen</th>
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<tbody>
<tr>
<td>Required Courses:</td>
<td>18cr</td>
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<tr>
<td>HNRC 101 Honors Core I (1)</td>
<td>5cr</td>
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<tr>
<td>HNRC 102 Honors Core II (1)</td>
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<tr>
<td>HNRC 201 Honors Core III (1)</td>
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<td>HNRC 202 Honors Core: Sciences (2)</td>
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<tr>
<td>Additional Honors Coursework/Honors Education:</td>
<td>6cr</td>
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<tr>
<td>-or- Departmental Honors Thesis (3)</td>
<td>3cr</td>
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<tr>
<td>Completion of H-Designated Course</td>
<td>3cr</td>
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<tr>
<td>Completion of Honors Education Requirement (4)</td>
<td>3cr</td>
</tr>
</tbody>
</table>

(1) HNRC 101, 102, and 201 replace Liberal Studies requirements for Composition I (ENGL 101), and three humanities courses (ENGL 121; HIST 196, 197, or 198; and either RLST 100 or PHIL 120), and one fine arts course (either ARHI/MUHI/THTR 101 or DANC 102). In addition, students who complete honors units offered by social science departments will receive Liberal Studies social science credits for the appropriate corresponding departmental course.

(2) HNRC 202 replaces Liberal Studies requirements for either one non-laboratory science and one social science or two non-laboratory sciences or two social sciences, depending on the units selected.

(3) Departmental honors courses (H-designated courses) count toward the total number of honors credits required for Cook Honors College graduation. Students are also encouraged to complete an undergraduate thesis. Students may enroll for thesis credit by completing the necessary approval forms and scheduling HNRC 483 honors thesis/individual study or, in some departments, by scheduling a departmental honors thesis course.

(4) Students are required to do at least one of the following experiential components: study abroad, internship, honors thesis, or independent study. In the absence of a suitable cocurricular experience, an additional graduate course may be substituted. This requirement may or may not be a credit-bearing experience.

Applicants interested in further information are invited to contact the Cook Honors College Admissions office at 800-487-9122 or 724-357-4971.
**Military Science**

Website: [www.iup.edu/rotc](http://www.iup.edu/rotc)

LTC Dennis Faulkner, Chair

**Reserve Officers’ Training Corps**

The United States Army established a Senior Reserve Officers’ Training Corps program at the university in 1950. The ROTC program facilitates leadership education that students can apply throughout their careers, be they in business, industry, technology, education, the physical sciences, or the humanities. All Military Science credits count toward graduation, and a student who completes the total program can earn a commission as a second lieutenant and receive placement in one of 24 professional officer specialties in the US Army, including Military Intelligence, Military Police, Signal, Medical Service, and the Corps of Engineers.

The ROTC program is divided into two phases: the Basic Course (freshman and sophomore years) and the Advanced Course (junior and senior years). In most cases, students progress through the ROTC program by enrolling in MLSC 101 and 102 as freshmen. By taking MLSC 101 and 102, the student fulfills the university’s 3-credit Liberal Studies requirement in Health and Wellness. Students who continue in the Basic Course by enrolling in MLSC 203 and 204 as sophomores incur no military obligation, but they retain the opportunity to compete for a full-tuition ROTC scholarship. Whether they win an ROTC scholarship or not, all students who complete the Basic Course are eligible to enroll in the ROTC Advanced Course. All students receive financial assistance while they are enrolled in the Advanced Course.

**What ROTC Offers**

- Comprehensive academic program in military leadership teaches practical skills such as physical fitness, adventure training, rappelling, marksmanship, orienteering, and first-aid techniques.
- Regular ROTC classes for two semesters satisfy the mandatory Health and Wellness Liberal Studies requirement for graduation.
- Equipment, ROTC textbooks, and uniforms are issued, without cost, to enrolled students.
- Students enrolled in the Basic Course (MLSC 101, 102, 203, and 204) become eligible for full-tuition scholarships and enrollment in the ROTC Advanced Course.
- Students enrolled in the Advanced Course (MLSC 305, 306, 407, 408) receive a cash stipend ($420 each month) for 10 months during the academic year.
- Students who complete the Advanced Course and graduate from IUP receive commissions as second lieutenants and serve in one of three Army components: Active Army, National Guard, or Army Reserve.
- Dedicated dorms in Stephenson Hall with discounted room and board rates.

**ROTC Basic Course**

The first two years of Military Science (MLSC 101, 102, 203, and 204) provide a background of the historical role of military forces as well as current national military objectives. In addition, students develop basic leadership skills in problem solving and decision making and learn survival techniques, map reading, rappelling, and marksmanship. Graduates of the Basic Course incur no commitment to enroll in the ROTC Advanced Course and incur no obligation for military service. Students may enroll or withdraw from any of the four courses in the ROTC Basic Course under the same provisions and in the same manner as other academic courses at IUP. Veterans of US Armed Forces and students who complete the ROTC Leaders Training Course at Fort Knox, Kentucky, may receive exemption from the ROTC Basic Course. Students who have completed a basic training course are awarded academic credits for MLSC 101 and 102.

**ROTC Advanced Course**

The last two years of Military Science (MLSC 305, 306, 407, and 408) compose the Advanced Course and lead to a commission as an officer in the US Army. To be eligible to enroll in the Advanced Course, a student must meet these criteria: be a citizen of the United States; be physically fit and pass a physical examination; be an enrolled academic junior or senior with at least a 2.0 GPA; be not less than 17 years of age but less than 39 by the anticipated graduation date; successfully complete the ROTC Basic Course or its equivalent; and be accepted by the professor of military science. Advanced Course students study advanced leadership, management, professional ethics, small unit tactics, military law, and instructional and training techniques. Practical application is the rule, and students have the opportunity to practice and polish their skills as members of the ROTC battalion leadership. Once Advanced Course students agree in writing to complete the Advanced Course, graduate on time, and accept a commission as an officer, they become eligible to receive a monthly tax-free cash stipend of $420 for 10 months of the academic year.

**Scholarships**

High school seniors are eligible to apply for a national four-year or three-year Advanced Designee Scholarship. The scholarship is awarded while the student is still in high school; the cadet must contract with the ROTC at the start of the freshman year of college. Information and criteria regarding who is eligible and how to apply can be found at [www.goarmy.com/rotc](http://www.goarmy.com/rotc).

IUP students can compete for campus-based 3.5-year, 3-year, 2.5-year, or 2-year scholarships, and graduate students can compete for campus-based two-year scholarships. Currently, the campus-based scholarships available are as follows:

1. **Line Scholarship**: Open to all majors, it allows cadets to compete for accession into any Army branch or component.
2. **Nurse Scholarship**: Open only to nursing majors, it allows cadets to compete for Active, Guard, or Reserve components.
3. **STEM Scholarship**: Open to all science, technology, engineering, and mathematics majors, it allows cadets to compete for accession into any Army branch or component.
4. **Dedicated National Guard**: Open to all majors, it dedicates cadets into service in the National Guard. Cadets must enter into the simultaneous membership program.
5. **Dedicated Army Reserve**: Open to all majors, it dedicates cadets into service in the US Army Reserves. Cadets must enter into the simultaneous membership program.
6. **Guaranteed Reserve Forces Duty**: Open to all majors, it allows cadets to compete for either Army Reserve or Army National Guard duty. Cadets must enter into the simultaneous membership program.

All scholarships are competitive and are funding dependent. Once the scholarship is awarded, a military service obligation is incurred.

**Program in Military Science**

**Required Courses**: 23 credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MLSC 101</td>
<td>Introduction to Military Science</td>
<td>2cr</td>
</tr>
<tr>
<td>MLSC 102</td>
<td>Fundamentals of Military Science</td>
<td>2cr</td>
</tr>
<tr>
<td>MLSC 203</td>
<td>Fundamentals of Tactical Operations, Techniques of Leadership, and Weapons Characteristics</td>
<td>2cr</td>
</tr>
<tr>
<td>MLSC 204</td>
<td>National Security and Fundamentals of Military Topography</td>
<td>2cr</td>
</tr>
<tr>
<td>MLSC 305</td>
<td>Fundamentals of Leadership and Modern Learning/Teaching Relationship</td>
<td>3cr</td>
</tr>
<tr>
<td>MLSC 306</td>
<td>Study of Advanced Leader Planning and Execution of Modern Combat Operations</td>
<td>3cr</td>
</tr>
<tr>
<td>MLSC 407</td>
<td>Management of the Military Complex to Include Fundamentals of Military and International Law</td>
<td>3cr</td>
</tr>
<tr>
<td>MLSC 408</td>
<td>Seminar in Military Analysis and Management</td>
<td>3cr</td>
</tr>
<tr>
<td>HIST 251</td>
<td>United States Military History</td>
<td>3cr</td>
</tr>
</tbody>
</table>

(1) MLSC 101-102 may substitute for the Liberal Studies requirement in Health and Wellness.
(2) MLSC 203-204 are available as free electives to all students without any military obligation.

**Minor in Military Leadership**

The Military Leadership minor prepares ROTC cadets to execute the duties of a commissioned officer in the United States Army. It includes 12 credits of applied military science focusing on military teamwork, leadership, man
agreement, and physical preparedness and 6 credits of foundational material including interpersonal self-awareness and the social construction of differences that are the basis for shared organizational objectives. Advances life-long learning and leader development utilizing the US Army Chief of Staff’s Professional Reading List. The minor is only available for students enrolled in the Reserve Officer Training Corps (ROTC) and has been designed to connect the principles of teamwork and military leadership, allowing students to take both the minor in Military Leadership and the minor in Effective Teamwork and Communication.

Minor—Military Leadership

Required Courses: 6

Foundational:
SOC 161 Foundations of Sociology: Social Relations in Groups and Organizations (1) 3cr
THTR 161 Introduction to Theater: Interpersonal Practices (2) 3cr

Military Science: (3) 12
MLSC 305 Fundamentals of Leadership and Modern Learning/Teaching Relationship 3cr
MLSC 306 Study of Advance Leader Planning and Execution of Modern Combat Operations 3cr
MLSC 407 Management of the Military Complex to Include Fundamentals of Military and International Law 3cr
MLSC 408 Seminar in Military Analysis and Management 3cr

Practical Applications in Military Leadership: 0
Leadership Laboratory (4) 0cr

(1) SOC 161 counts toward the Liberal Studies Social Science requirement. SOC 161 and SOC 151 are interchangeable for D/F repeat. SOC 161 is required for the Military Leadership minor.
(2) THTR 161 counts toward the Liberal Studies Fine Arts requirement. THTR 161 and 101 are interchangeable for D/F repeat. THTR 161 is required for the Military Leadership minor.
(3) Students taking 300- and 400-level MLSC courses must be under contract with the Military Science Department to become a US Army officer.
(4) The Leadership Laboratory, a 0cr course, provides the practical application of military leadership through scenario based tactics.

Office of Extended Studies

Website: www.iup.edu/extended

The Office of Extended Studies does the following:
• Engages the local and regional community to provide adult noncredit education, training, and skill development courses.
• IUP’s for-credit classes
• Management and oversight of IUP’s intensive English program, the American Language Institute
• International agreements and partnerships
• International recruiting and marketing

International Exchange and Education Abroad Programs

Through the OIE, IUP students may take part in education abroad programs. Students seeking information on academic programs offered by educational institutions abroad are welcome to read materials in the office and on-line. Qualified students planning to travel or study abroad should go to the OIE to start and complete the process.

More information about Education Abroad can be obtained in the OIE, 724-357-2295, or at the website listed above.

Argentina, Buenos Aires. Universidad del Salvador. Students can study Spanish language and culture in a university setting while experiencing the life metropolitan Buenos Aires has to offer.

Botswana, Gaborone. Students in most majors can study in Southern Africa at the University of Botswana. The university offers an African culture program as well as courses in business, education, science, humanities, and social sciences. Language of instruction is English.

Chile, Valparaíso. Pontificia Universidad Católica de Valparaíso (PUCV). Study for one semester, an academic year, or for the summer at PUCV. Students can enroll in intensive Spanish language and Chilean culture courses or main curriculum. Languages of instruction are English and Spanish.

China, Chengdu. Students interested in improving their Chinese language and culture skills can study at Sichuan University. Chengdu is the land of pandas and many historical sites. Languages of instruction are Chinese and English.

China, Shanghai. Eberly College of Business and Information Technology students may study for one semester or an academic year at the Southwestern University of Finance and Economics. Language of instruction is Chinese.

China, Macau. This exchange at the University of Macau focuses on business study and offers courses in the following areas: accounting, computer studies, economics, finance, management, and mathematics. Language of instruction is English.

Office of International Education

Website: www.iup.edu/international

Michele L. Petrucci, Associate Vice President for International Education and Global Engagement The Office of International Education (OIE) is a comprehensive international education office and the primary catalyst for IUP’s international initiatives. The OIE proactively facilitates, promotes, and organizes the international programs, events, support, and initiatives to more fully diversify IUP and the local western Pennsylvania communities.
year. Language of instruction is Chinese.

Croatia, Zagreb. College of Fine Arts students may study for one semester or an academic year at the Academy of Fine Arts and the Academy of Music at the University of Zagreb. Language of instruction is English.

England, Essex. Students can attend the University of Essex for one semester and enroll in courses in any of the nearly 50 academic programs offered. Language of instruction is English.

England, Leeds. Students wishing to be in an English city environment will find Leeds Beckett University a perfect choice. Exchanges are for a fall or spring semester or the full academic year. Courses are offered in nearly all disciplines.

England, Worcester. Students are offered an opportunity to study at the University of Worcester for one semester or an academic year. Courses are offered in a variety of fields of study.

Finland, Helsinki. Students can attend the University of Helsinki for a semester or an academic year. Courses are offered in a variety of majors. Language of instruction is English.

France, Nancy. École Nationale Supérieure d’Art de Nancy (ENSA). Students in their junior or senior year can apply to take courses in fine art at ENSA for a semester or an academic year. Languages of instruction are English and French.

France, Nancy. Institute Commerciale de Nancy (ICN). A prestigious Grande Ecole, the ICN offers business courses taught in English.

France, Nancy/Metz (summer). ICN offers a competitive summer program for business students. Language of instruction is English.

France, Paris. Paris International Business School. Students pursuing a business degree can study for a semester or an academic year. Languages of instruction are English and French.

Germany, Duisberg (summer). This exchange is for business majors. The BEST program offers students a chance to study in Germany for a short period.

Germany, Nürnberg. Students may study for one semester or an academic year at the Georg Simon Ohm University of Applied Sciences. Business, sociology, and German students are eligible. Languages of instruction are English and German.

Ghana, Kumasi. Students can study at the only technical university in Ghana and one of the best in Africa. Courses in humanities, business administration, social sciences, and sciences are offered. Language of instruction is English.

India, Bangalore (summer). Students in the MBA program may take IUP courses in Bangalore on a short, summer program. For information, contact the Eberly College of Business and Information Technology.

Indonesia, Jakarta. Universitas Multimedia Nusantara (UNM). Students can attend the UNM for one semester and enroll in a variety of courses including Indonesian language and cultural studies. Language of instruction is English.

Indonesia, Singaraja. Ganesha University of Education (UNDIKSHA). Ganesha University of Education offers students a unique study atmosphere for a semester or an academic year. Located on the north coast of Bali, the campus is in close proximity to the beach, eco-tourism attractions, and historic temples. Students can take a variety of courses as well as intensive Indonesian language courses. Language of instruction is English.

Israel, Haifa. Study in a diverse and historical city in Israel for a summer, semester or year at the University of Haifa. Languages of instruction are Hebrew and English, plus intensive Hebrew or Arabic language classes.

Japan, Miyazaki (summer). The University of Miyazaki offers students a summer program exploring Japanese language and culture. Languages of instruction are English and Japanese.

Japan, Nagasaki. Students can attend the University of Nagasaki for a semester or an academic year. They can enroll in Japanese language intensive courses or in courses related to their major. Languages of instruction are English and Japanese.

Japan, Nagoya. Nagoya University of Foreign Studies is a private university where students can study Japanese language and culture at many different levels as well as disciplines in English.

Japan, Osaka. The opportunity to study for a semester or an academic year at Kansai Gaidai University is available to students interested in Japanese culture. A variety of courses are offered in the Asian Studies program. Languages of instruction are English and Japanese.

Jordan, Irbid. Study for one semester or an academic year at Yarmouk University. Immerse yourself in Arabic in YU’s Arabic Language Center. Languages of instruction are English and Arabic.

Malaysia, Subang Jaya. All students are welcome to attend INTI University, a private university that offers a full curriculum. Exchanges are available for fall or spring semester or for a full academic year. Language of instruction is English.

Mexico, Puebla. Students wishing to enroll in courses in Spanish, business, international relations/studies, anthropology, and hotel and restaurant management with an interest in Mexican culture have the opportunity to study at the Universidad de las Americas—Puebla for one semester, academic year, or summer. Languages of instruction are Spanish and English (specific programs such as business and fine arts).

Norway, Oslo. Students may take courses at Oslo Metropolitan University College of Applied Sciences in art, economics, social sciences, education, fine arts, and more. Language of instruction is English.

Norway, Stord. Study for one semester or one year at Western Norway University of Applied Sciences. Students have the opportunity to take courses in English, nursing, technical business, and more.

Poland, Poznan. Students studying chemistry, criminology, English, employment and labor relations, journalism and public relations, physics, psychology, and teacher education have the opportunity to study for a semester or an academic year at Adam Mickiewicz University. Language of instruction is Polish; however, many courses are offered in English.

Scotland (various cities). Students may take in a variety of courses at the University of the Highlands and Islands. Students mainly study at the Inverness or Perth campuses.

Slovenia, Ljubljana. Students studying in the College of Fine Arts have the opportunity to study for one semester or an academic year at the Academy of Music at the University of Ljubljana.

South Korea, Daegu. Study for a summer, one semester, or an academic year at Kyungpook National University. A variety of courses are offered in the Asian Studies program. Languages of instruction are English and Korean.

South Korea, South Jeolla. Students interested in improving their Korean language and culture skills and taking academic courses in English can study at Korea University—Sejong campus, located outside of Seoul. Students can experience a quieter side of Korea. Languages of instruction are Korean and English.

Spain, Valladolid (spring). Students with 12 earned credits in Spanish and an interest in experiencing Spain’s culture have an opportunity to participate in the Pennsylvania Valladolid Study in Spain Program during the spring semester. This experience enables students to spend a period of 20 weeks immersed in Spanish culture and language at the University of Valladolid.

Sweden, Karlstad. Students wishing to enroll in a range of courses with a desire to experience Swedish culture are invited to study at Karlstad University. Language of instruction is English.

Taiwan, Tamsui. Experience life in Taiwan at Tamkang University. Across-the-board curriculum is offered for semester or academic-year exchanges.
Languages of instruction are Chinese and English (specific programs).

Taiwan, Taipei. Study in the heart of the capital at the University of Taipei in various academic programs; especially Kinesiology. Languages of instruction are Chinese and English.

Taiwan, Taichung. Providence University. Students can attend Providence University for a semester or summer program. Intensive Mandarin Chinese language courses, Taiwanese culture, and both undergraduate and graduate business courses are available. Languages of instruction are English and Mandarin Chinese.

Trinidad and Tobago. University of Trinidad and Tobago. As IUP’s only partner in the Caribbean, the University of Trinidad and Tobago offers a variety of courses at 10 campuses around the island nation. Language of instruction is English.

Turkey, Ankara. Students may study at the Middle East Technical University, located in the country’s capital, in a full range of subjects, all taught in English. METU is one of the most elite universities in Turkey.

CEA
IUP students can participate in a range of English-medium programs around the world through CEA. For more information, visit the website www.ceastudyabroad.com and the OIE.

International Student Exchange Program (ISEP)
The ISEP offers a wide range of affordable educational and cultural experiences for one semester or academic year for participants at more than 100 institutions in 35 different countries (summer and longer exchanges are also possible). Students who do not speak a foreign language still have many sites in which the language of instruction is English. Students who do speak a foreign language have even more options. For more information, visit the website www.isep.org and the OIE.

SAI
Not fluent in Italian but interested in Italian language and culture? Consider studying at one of the English-medium institutions offered through IUP’s affiliate agreement with SAI: John Cabot University in Rome; Florence University of Arts in Florence; Apicius Culinary Institute in Florence; NABA (Academy of Arts and Design) or Domus Academy for Fashion in Milan; Center for International Intercultural Exchange, Siena; and Sant’Anna Institute Sorrento Lingue, Sorrento. A wide range of courses are offered. Language of instruction is English.

Semester at Sea (SAS)
This is a multiple-country education abroad program open to students of all majors. The unique SAS shipboard environment travels the world while offering cocurricular activities and academics. For more information, visit the website www.semesteratsea.org.

Faculty-Led Programs
Faculty-led programs are designed and taught by IUP faculty in an international setting. The courses and locations vary from year to year. Current approved programming can be found on the OIE’s website www.iup.edu/educationabroad.

American Language Institute (ALI)—English Language Programs for International Students and Visitors
Website: www.iup.edu/alii
Michele L. Petrucci, Executive Director
Emma K. Archer, Assistant Director
The American Language Institute (ALI) offers intensive English classes for international students and visitors. The ALI provides courses for students from beginner to advanced proficiency in English. Students at the ALI take 24 hours of course work a week, with 14-week semesters in the fall and spring and a seven-week term in the summer. An institutional TOEFL is administered at the conclusion of each semester, and results can be used for admission to IUP. Cocurricular social and cultural programs are offered to all ALI students.

The ALI offers several programs of study to meet the language needs and academic interests of international students:
- The English for Academic Purposes program is for applicants preparing for study at a US college or university, exchange students, and individuals in the community who want to improve their English skills.
- The ALI Provisional program (ALI-P) is for applicants who plan to study at IUP. This program allows students to receive conditional admission to an undergraduate and several graduate programs at IUP while they study at the ALI to reach the required level of English proficiency.
- The ALI Bridge program allows qualified students to take up to two IUP classes while also studying English at the ALI. If students successfully complete nine IUP credits through the Bridge program, the language proficiency test requirement may be waived for undergraduate admission.

The ALI also works with groups and organizations to create programs to meet their students’ schedules and specific language learning needs. Please contact the ALI for more information.

Academic Success Center (ASC@IUP)
Website: www.iup.edu/success
The Academic Success Center at IUP (ASC@IUP) supports the achievement of students as they attain their academic goals. ASC@IUP is an important bridge between Academic Affairs, Student Affairs, and Enrollment Management in support of student success. It serves as a hub through which students can navigate the network of offices and service providers across the university.

Equally important is the support provided to faculty members in their role as academic advisors. ASC@IUP provides resources to faculty, using a variety of avenues, which are important tools for working with students.

Resources for students, faculty, and parents are provided online. The center is coordinated by the Office of the Provost, with outreach to all divisions across the university. The Office of the Student Advocate, Office of New Students Orientation, the Major and Career Exploration Center, and the ASC@IUP Walk-in Tutoring Center are components of ASC@IUP.

Student Advocate (Office of the)
Website: www.iup.edu/success
E-mail: asc-inquiry@iup.edu
Building on a culture of student success and retention, the Office of the Student Advocate provides personal student support, outreach services to at-risk populations, and information/referrals to other campus resources for both students and parents. The advocate assists currently enrolled students as they navigate university systems; can address concerns about life on campus, academic policies, and will provide referrals as appropriate, with the goal of assisting students to fully engage in the learning process.

The Student Advocate oversees the Lead Peer Mentoring Program, Peer Mentoring, and the Student Advocate. Peer Mentors are fellow students who guide students to resources and experiences across the university. Students from across the university have easy access to the Student Advocate, a staff member dedicated to helping students through any roadblocks they might encounter.

The Student Advocate serves as the point-of-contact for any student seeking to withdraw from the university by coordinating the Total University Withdrawal process. The Advocate strives to create a supportive environment and offers high quality services on behalf of the entire student population in collaboration with others across the university.

New Student Orientation (Office of)
Website: www.iup.edu/orientation
E-mail: orientation-testing@iup.edu
IUP provides an orientation program for all new students, including all entering freshman and transfer students. Students are expected to participate...
in the mandatory orientation program that provides information, resources, and interactions designed to ensure a successful first-year or transfer experience. IUP views student orientation as an opportunity to showcase the academic and student experiences that are important to initial success, satisfaction, and retention within the university. The first year at IUP is critical in regard to academic success. During this time, students must develop academic competency in the college curriculum and adjust to the personal decision-making process college life affords. New Student Orientation is designed to assist with this important college adjustment. Freshman and transfer students are expected to participate fully in the orientation program, including any overnight components and associated activities.

**Freshman Spring/Summer Orientation:** The orientation, advising, and course registration program occurs during the spring or summer immediately preceding students' matriculation on campus. This overnight, two-day program is designed to assess academic readiness for courses integral to the IUP curriculum and acquaint students with the IUP collegiate experience. A concurrent Parent and Family Member Orientation is also offered.

**Transfer Summer Orientation:** Transfer orientation serves to acquaint students with prior college experience with IUP resources to support academic and career success. The program provides placement testing for students in selected majors, concluding with advisement and course registration. A concurrent Parent and Family Member Orientation is also offered.

**Major and Career Exploration Center (MCEC)**

**Website:** www.iup.edu/exploremajors  
**E-mail:** mcec-explore@iup.edu

The Major and Career Exploration Center is designed to assist all students, regardless of class year, with making informed academic and career decisions. Through the use of various tools and resources, peer advisors assist students through evaluating their options while sharing what IUP has to offer in relation to their interests. Services offered include the FOCUS-2 test, several interest inventories, and a resource library.

Students may also want to consider taking DVST 170 Career Exploration. This class introduces students to the theoretical and practical framework with which to explore careers compatible with overall academic skills, aptitudes, and life goals. Students will examine the world of work, assess their interests and abilities, and make realistic decisions on academic majors and careers.

**ASC@IUP Tutoring Center**

**Website:** www.iup.edu/success

IUP offers several tutoring services for students, the ASC@IUP Tutoring Center provides free peer-to-peer tutoring with no appointment necessary and is located in Stabiley Library. Students should refer to the Tutoring Schedule online at the start of each semester for specific tutoring times and locations. Supplemental Instruction (SI) and other discipline-specific tutoring can be found at other locations across campus.

**Center for Teaching Excellence**

**Website:** www.iup.edu/teachingexcellence  
**Stephanie A. Taylor-Davis,** Director

The mission of the Center for Teaching Excellence is to foster the enhancement of teaching excellence in all its forms. The center offers many professional development opportunities to the campus community related to teaching and pedagogy. The center recognizes excellence in teaching through selection and presentation of the annual Faculty Recognition Awards. The center’s Reflective Practice Project promotes effective teaching through the use of workshops, monthly meetings, and small “teaching circles.” New Faculty Orientation, offered by the center, introduces new faculty members to the university and community and explores topics such as teaching, advising, and assessment. Current relevant and research-based teaching resources are available on the center’s website. Faculty members are invited and encouraged to utilize the center resources to enhance student engagement in the learning process.
**Interdisciplinary Degree Programs, Minors, and Certificates**

The Interdisciplinary degree programs, minors, and certificates are multi-disciplinary and are not specific to one university college.

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**Degree Programs**

- Public Health (Tracks available: Environmental and Occupational Health, Behavioral and Mental Health, Epidemiology and Biostatistics, and Global and Rural Communities)

**Minors**

- Child and Adult Advocacy Studies
- Global Health
- Pre-Law
- Professional Teamwork and Leadership
- Sustainability Studies

**Certificates**

- Child and Adult Advocacy Studies
- Living Learning (tracks available: Global Scholarship, Scientific Communication)
- Shale, Gas, and Energy

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**Public Health**

The Bachelor of Science in Public Health graduate will help meet Pennsylvania’s workforce needs in public health and health care related fields, and will help meet the strong demand for trained public health professionals projected by national and regional studies. This degree will prepare students for jobs in health administration, community health, and health education. Upon completion of the program, students will understand the science of human physical and mental health, the epidemiology of infectious and chronic diseases as well as the implications of the US and global health care systems with regard to access and ethics of the disparities in health care delivery. The program provides students with options to focus in four academic areas: Environmental and Occupational Health, Behavioral and Mental Health, Epidemiology and Biostatistics, and Global and Rural Communities.

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**Bachelor of Science—Public Health/Behavioral and Mental Health Concentration**

**Health Concentration**

**Liberal Studies:** As outlined in the Liberal Studies section with the following specifications:
- **Humanities:** PHIL 122 or 130
- **Mathematics:** MATH 217
- **Natural Science:** BIOL 104, 119
- **Social Science:** Choose three courses from ANTH 110 or 211, GEOG 104 or RGPL 103, PSYC 101, SOC 151 or 161

**Public Health Electives:** ECON 122, FDNT 145

**Public Health Core:**
- BIOL 301 Fundamentals of Epidemiology 3cr
- ECON 360 Health Economics 3cr
- GEOG/RGPL 316 Introduction to Geographic Information Systems 3cr
- NURS 410 Health Promotion and Social Issues 3cr
- NURS 455 Health Care Informatics 3cr
- NURS/ELR 314 Health Policy and Law 3cr
- PUBH 122 Foundations of Public Health 3cr
- PUBH 306 Research Design and Analysis in Public Health 3cr
- PUBH 493 Internship in Public Health 3-6cr
- SOC 442 Medical Sociology 3cr

**Concentration: Behavioral and Mental Health**
- PSYC 332 and 374; SOC 361 or 362 or 363; SOC 448 and two controlled electives (1)

**Free Electives:** (1) 22-26

**Total Degree Requirements:** 120

(1) See advisor.
(2) Minor or certificate recommended.

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**Bachelor of Science—Public Health/Environmental and Occupational Health Concentration**

**Liberal Studies:** As outlined in the Liberal Studies section with the following specifications:
- **Humanities:** PHIL 122 or 130
- **Mathematics:** MATH 217
- **Natural Science:** BIOL 104, 119
- **Social Science:** Choose three courses from ANTH 110 or 211, GEOG 104 or RGPL 103, PSYC 101, SOC 151 or 161

**Public Health Electives:** ECON 122, FDNT 145

**Public Health Core:**
- BIOL 301 Fundamentals of Epidemiology 3cr
- ECON 360 Health Economics 3cr
- GEOG/RGPL 316 Introduction to Geographic Information Systems 3cr
- NURS 410 Health Promotion and Social Issues 3cr
- NURS 455 Health Care Informatics 3cr
- NURS/ELR 314 Health Policy and Law 3cr
- PUBH 122 Foundations of Public Health 3cr
- PUBH 306 Research Design and Analysis in Public Health 3cr
- PUBH 493 Internship in Public Health 3-6cr

**Concentration: Environmental and Occupational Health**
- BIOL 221, 323; CHEM 101, 102; SAFE 330 or 430, 335, 361

**Free Electives:** (1) 17-21

**Total Degree Requirements:** 120

(1) Minor or certificate recommended.

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**Bachelor of Science—Public Health/Epidemiology and Biostatistics Concentration**

**Liberal Studies:** As outlined in the Liberal Studies section with the following specifications:
- **Humanities:** PHIL 122 or 130
- **Mathematics:** MATH 121
- **Natural Science:** BIOL 104, 119
- **Social Science:** Choose three courses from ANTH 110 211, GEOG 104 or RGPL 103, PSYC 101, SOC 151 or 161

**Public Health Electives:** ECON 122, FDNT 145

**Public Health Core:**
- BIOL 301 Fundamentals of Epidemiology 3cr
- ECON 360 Health Economics 3cr
- GEOG/RGPL 316 Introduction to Geographic Information Systems 3cr
- NURS 410 Health Promotion and Social Issues 3cr
- NURS 455 Health Care Informatics 3cr
- NURS/ELR 314 Health Policy and Law 3cr
- PUBH 122 Foundations of Public Health 3cr
- PUBH 306 Research Design and Analysis in Public Health 3cr
- PUBH 493 Internship in Public Health 3-6cr
Bachelor of Science—Public Health/Global and Rural Communities Concentration

Liberal Studies: As outlined in the Liberal Studies section with the following specifications:

Humanities: PHIL 122 or 130
Mathematics: MATH 217
Natural Science: BIOL 104, 119
Social Science: Choose three courses from ANTH 110, 211, GEOG 104 or RGPL 103 PSYC 101, SOC 151 or 161

Liberal Studies Electives: ECON 122, FDNT 145

Public Health Core:

BIOL 301 Fundamentals of Epidemiology 3cr
ECON 360 Health Economics 3cr
ECON 361 Health Policy and Law 3cr
NURS 410 Health Promotion and Social Issues 3cr
NURS 455 Health Care Informatics 3cr
PUBH 122 Foundations of Public Health 3cr
PUBH 306 Research Design and Analysis in Public Health 3cr
PUBH 493 Internship in Public Health 3-6cr
SOC 442 Medical Sociology 3cr

Concentration: Global and Rural Communities

ANTH 240, SOC 454, ANTH/SOC 450, GEOG 454
and three controlled electives (1)

Free Electives: (2) 18-21

Total Degree Requirements: 120

(1) Minor or certificate recommended.

(2) See advisor.

Minor—Child and Adult Advocacy Studies (CAAST) for Psychology majors (1, 2)

Required Courses:

PSYC 101 General Psychology 3cr
PSYC 322 Violence Across the Life Span 3cr
SOC 151 Principles of Sociology or
or 161 Foundations of Sociology: Social Relations in Groups and Organizations 3cr

Controlled Electives:

Two courses from the following: SOC 357, 427, 428 6cr

(1) Students majoring in Psychology are not eligible to take this minor; instead, they must take the CAAST minor that has been designed for Psychology majors other than Psychology and Sociology.

(2) Students majoring in Psychology are not eligible to take this minor; instead, they must take the CAAST minor that has been designed for Psychology majors other than Psychology and Sociology.

Minor—Child and Adult Advocacy Studies (CAAST) for Sociology/Human Services Track majors (1, 2, 3)

Required Courses:

PSYC 101 General Psychology 3cr
PSYC 313 Non-normative Development in Adulthood or 314 or
or 314 Child and Adolescent Psychopathology 3cr
PSYC 322 Violence Across the Life Span 3cr
PSYC 332 Community Psychology and Prevention Science 3cr
PSYC 380 Gender and Violence 3cr
SOC 151 Principles of Sociology or
or 161 Foundations of Sociology: Social Relations in Groups and Organizations 3cr

Controlled Electives:

Three additional courses from the following: 9cr
PSYC 313 or 314, 332, 380, SOC 357, 427, 428

(1) Credits counted in Liberal Studies, not in the minor.

(2) With the aid of a CAAST minor advisor, students will select classes (a) from both PSYC and SOC, and (b) that will cover the spectrum of violence across the lifespan.

Global Health Minor

Global health is an area for study, research, and practice that places a priority on improving health and achieving health equity for all people worldwide. The Global Health minor will equip students interested in health and medicine with the analytical and critical-thinking skills needed to understand, explain, and critique health inequalities. They will recognize how these health disparities result from globalization and the need for promoting health equity in areas of the world with under-resourced and constrained health care. The minor is organized around six health pathways: (1) food, nutrition, and hunger; (2) environmental justice; (3) law, ethics, and policy; (4) disaster, conflict, and displacement; (5) gender, sexuality,
and reproductive health; and (6) aging. Students will select one of the six pathways and will complete 12 credits in the selected pathway, in addition to Introduction to Global Health and either Medical Anthropology or Medical Sociology.

Health topics, theories, and research methods as addressed in the social sciences will advance students’ interdisciplinary understandings of health disparities, with a corresponding awareness of health equity. Practicums, through field school participation, internships, and other experiential learning opportunities, will merge course material with real world praxis, and will provide students with greater insights into global health and its contributions. The Global Health minor will prepare students for graduate studies in health-related fields and careers in health-promoting governmental agencies and non-governmental organizations (NGOs). Ethnographic field school, independent study courses, and internship courses may be applied to each global health pathway with the approval of the Global Health minor committee. Students should consult with the program coordinator to determine if there are any prerequisites for the courses listed below. The program coordinator will work with individual departments to determine if students may qualify for prerequisite exemptions. Course substitutions will be permitted with the approval of the Global Health minor committee.

Minor—Global Health (2, 5)  18

Core Courses:  6
ANTH 240  Introduction to Global Health  3cr

or

ANTH 444  Medical Anthropology  or  3cr

or

SOC 442  Medical Sociology  3cr

Select one Global Health Pathway  12

Food, Nutrition, and Hunger (7 courses, choose 4)  (3, 4)
At least one course must have a FDNT prefix.
The courses in this pathway offer the students an interdisciplinary perspective that will provide students with the analytical tools to examine world needs associated with food, nutrition, and health.

ANTH 430, ECON 360, 362, FDNT 143 (1) or NURS 143 (1)

FDNT 415, 470, SOC 337

Environmental Justice (7 courses, choose 4)  (3, 4)
The courses in this pathway offer the students an interdisciplinary perspective that will provide students with the analytical tools to examine the linkages between environmental issues in the world and health.

ANTH 420, BIOL 221, ECON 362, FDNT 415, GEOG/RGPL 343, PHIIL 270, SOC 417

Law, Ethics, and Policy (9 courses, choose 4)  (3, 4)
The courses in this pathway will allow students to learn about using law and ethics to develop and advocate for legislation and policies designed to address social injustice and improve health in the world.

ANTH 352, 360, ECON 360, 362, NURS/ELR 314, PHIIL 130, PLSC 405, SOC 362, 452

Disasters, Conflicts, and Displacement (6 courses, choose 4)  (3, 4)
The courses in this pathway will offer the students an interdisciplinary perspective to examine natural disasters and armed conflicts that result in displacement and poor health in many parts of the globe.

ANTH 352, 370, NURS 102, PSYC 378, RGPL 103, SOC 337

Gender, Sexuality, and Reproductive Health (10 courses, choose 4)  (3, 4)
The courses in this pathway will offer the students an interdisciplinary perspective that will provide students with the analytical tools to examine gender, sexuality, and related health issues as well as reproductive health knowledge and services in the world.

ANTH 250, BIOL 117, ENGL 336, KHSS 143 (1), LGBT 200, PLSC 405, PSYC 379, SOC 251, 363, 410

Aging (6 courses, choose 4)  (3, 4)
The courses in this pathway will offer the students an interdisciplinary perspective that will provide students with the analytical tools to examine fundamentals of global aging and health.

ANTH 340, ECON 362, FDNT 410, KHSS 350, PSYC 312, 378, SOC 357, 452

(1) Only one 143 Liberal Studies class may be taken in a student’s entire program.
(2) At least six credits in the selected pathway must be at the 300 level or above.
(3) Only one 100-level course may count in the selected pathway.
(4) Only two courses in the selected pathway may come from the student’s major.
(5) With the exception of GLOB courses, no course prefix may be used more than twice without written permission from the program director.

Pre-Law Minor

Successful lawyers possess excellent skills in writing and speaking and can analyze a problem and explain its solution in clear, logical terms. The Pre-law minor prepares the student especially well in these areas and provides the skills and knowledge needed to do well in the law school admissions examination. This minor may be taken with any major other than those with a Pre-law Track. Although a pre-law minor is not required for law school admission, this interdisciplinary minor will provide students with the prerequisite skills for law school.

Minor—Pre-law  21

Seven courses, including at least one from each of the areas (no courses with student’s major prefix):

Business:  ACCT 201, ACCT 202, BLAW 235

Criminology:  CRIM 210, 215, 225, 255

Economics:  ECON 121, 122, 332

English:  ENGL 212, 227, 265, 310, 321

History:  HIST 320, 341, 342, 346, 475

Philosophy:  PHIIL 101, 122, 130, 221, 270, 320, 450

Political Science:  PLSC 358, 359, 361, 405

Professional Teamwork and Leadership Minor

The Professional Teamwork and Leadership minor is an interdisciplinary program that aims to better prepare students for a competitive job market by instilling interpersonal, teamwork, and communication skills for use in their field. Employers of today seek job candidates who possess a strong set of technical skills, but strongly prefer someone who can also work in a team environment. Ninety percent of employers believe that team skills are equally, or even more important, than technical skills when hiring. This minor provides students with ways to stand out from the crowd.

The minor is open to all IUP students and provides three pathways to best acquire the necessary team and leadership skills:

Applications of Teamwork and Leadership: Links the theory of teamwork and leadership to applications within your chosen field. Employers seek graduates who pursue opportunities to develop and apply their team and leadership skills through current, real-world problems that graduates will face during employment.

Business Leadership Theory: Explores top leadership theories and models, the motivation of teams, cooperate social responsibility, foundations of commercial sustainability, and corporate ethics in the regional and global marketplaces.

Community and Civic Leadership Theory: Explores the team and leadership theories regarding the evaluation and planning of services, managing, and motivating teams of volunteers while building intergovernmental and intra-organizational relationships.

Successful leaders have confidence in their abilities, are passionate, possess strong values, are excellent planners and organizers as well as effective communicators. These attributes are imperative to solving key problems. The minor will build students’ identities as team members and leaders, transform and enhance their thought processes, and provide an expanded toolkit to cultivate effective teams.
The addition of the minor is practical for all majors, particularly those programs with few free electives looking to add more value and marketability. This minor will expose students to understanding how their beliefs, attitudes, and actions affect the team as well as how the diversity of the team adds strength and additional perspective to solve complex problems facing society. Students will learn how to engage audiences with nontechnical adds strength and additional perspective to solve complex problems facing attitudes, and actions affect the team as well as how the diversity of the team programs with few free electives looking to add more value and marketability. The capstone course, coupled with the teamwork-intensive course, provides direct opportunities for students to develop and apply their team and leadership skills within their chosen field. Students will reflect on the personal qualities and attributes they bring to a team and prepare materials that best illustrate these skills to future employers.

Minor—Professional Teamwork and Leadership 18-20

Required Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 261</td>
<td>Teamwork and Communication Skills</td>
<td>3 cr</td>
</tr>
<tr>
<td></td>
<td>for College and Career (1)</td>
<td></td>
</tr>
<tr>
<td>LDSP 361</td>
<td>Introduction to Leadership</td>
<td>3 cr</td>
</tr>
<tr>
<td>SOC 161</td>
<td>Foundations of Sociology: Social Relations</td>
<td>3 cr</td>
</tr>
<tr>
<td></td>
<td>in Groups and Organizations (2, 3)</td>
<td></td>
</tr>
<tr>
<td>THTR 161</td>
<td>Introduction to Theater: Interpersonal</td>
<td>3 cr</td>
</tr>
<tr>
<td></td>
<td>Groups and Organizations (2, 3)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Practices (4)</td>
<td></td>
</tr>
</tbody>
</table>

Interdisciplinary Teamwork Course: (5) 3-4 cr

One course approved as a Teamwork-Intensive section (T-Course) course. 3-4 cr

The following courses have been approved as Teamwork-Intensive.

- BCOM 321 Business and Interpersonal Communications
- BIOL 240 Human Physiology
- BIOL 409 Pharmacology Principles and Applications
- CHEM 326 Analytical Chemistry II
- CHEM 481 Special Topics in Chemistry: Environmental Chemistry
- FDNT 355 Medical Nutrition Therapy I
- FDNT 415 Sustainable Nutrition
- GEOG 440 Conservation: Environmental Analysis
- GEOS 356 Coastal Processes and Geology
- PSYC 350 Physiological Psychology
- THTR 281 Special Topics: Applied Theater I

Capstone Courses: (6) 2-3 cr

- TMWK 461 Teamwork and Communication in Research (7) 1 cr
- And one to two credits of independent study, honors thesis, or undergraduate research (8) 1-2 cr

1. COMM 261 counts as a Liberal Studies Elective in Oral Communication and Information Literacy requirements.
2. SOC 161 constitutes toward the Liberal Studies Social Science requirement.
3. SOC 161 and 151 are interchangeable for pass/grade. SOC 161 is required for the minor.
4. THTR 161 counts toward the Liberal Studies Fine Arts requirement. THTR 161 and 101 are interchangeable for pass/grade. THTR 161 is required for the minor.
5. Any teamwork-intensive course can count towards a student’s minor. Students are encouraged to take a teamwork-intensive course that is a required course or elective in their major.
6. Students need a minimum 6 cr of 300- and 400-level course work. This requirement is completed using one of the two following approaches:
   1. LDSP 361 and a 3 cr 300- or 400-level teamwork intensive course or
   2. LDSP 361, TMWK 461, and 2 cr of a 300- or 400-level independent studies/honors thesis/undergraduate research.
7. TMWK 461 is a required course for the minor. The independent studies/honors thesis/undergraduate research course is a co-requirement (or may be taken as a prerequisite) for TMWK 461.
8. Students who take a 3 cr teamwork-intensive course need 2 cr of inde-

Sustainability Studies Minor

The Sustainability Studies minor is an interdisciplinary program that draws from expertise across the university. The program conceptualizes “sustainability” as an interdisciplinary approach to knowledge production and action that focuses on “the health and integrity of human societies and the natural world.” Sustainability is classically defined as a stool with three legs—the social, the economic, and the environmental; the purpose of this program is to address the challenges of sustainability by balancing the humanities, social sciences, and natural sciences. The minor equips students to broaden their thinking about the origins of sustainability problems and possible solutions to include human institutions, ethics and cultures, as well as technologies and natural sciences. In so doing, the minor aims to foster student agency with regard to research on sustainability, responsibility to both human and non-human life, and civic engagement with local sustainability projects. The minor can supplement all majors in the university. Career possibilities include positions in design, law, food industries, planning and architecture, education, building certification, renewable energy, and waste management.

Students must complete 18 credits and a capstone experience (described below) to earn a minor in sustainability studies. The program’s interdisciplinary approach encourages students to take courses from a variety of departments. The program is structured as follows:

1. All students will take SUST 201 Introduction to Sustainability.
2. Students must then take at least 12 credits from Category A, defined as courses in which substantial content is foundational to engagement with sustainability. These credits must be distributed across three “clusters,” each of which denotes a major aspect of sustainability. Having taken one course from each of the three clusters, students will then be able to take the remaining Category A credits from a cluster of their choosing.
3. Only 3 cr may come from Category B, defined as courses in which significant content is foundational to engagement with sustainability. Because their content may vary, courses from Category B must be approved by the program director to count for the minor.
4. At least 6 cr must be at the 300 level or above.
5. Only one course may come from the student’s major.
6. With the exception of SUST courses, no course prefix may be used more than twice without written permission from the program director.
7. Special topics, independent study courses, and internship courses may be applied to either Category A or Category B with the approval of the Sustainability Studies Committee.
8. Students should consult with the program director to determine if there are any prerequisites for the courses. Through counseling, the program coordinator will work with individual departments to determine if students may qualify for prerequisite exemptions.
9. Students will work with an advisor from the Sustainability Studies program to develop a capstone experience that synthesizes their knowledge and skills related to sustainability. This requirement may be fulfilled by one of the following options: a portfolio, conference presentation, or other scholarly activity approved by the program director.

Minor—Sustainability Studies 18

Required course:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUST 201</td>
<td>Introduction to Sustainability</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

Category A

Cluster I: Ethics, Culture, and Society

- ANTH 420 Environmental Anthropology 3 cr
- ANTH 430 Anthropology of Food 3 cr
- ENGL 361 Environmental Literature 3 cr
- HIST 385 People in Nature 3 cr
- PHIL 270 Ethics and the Environment 3 cr
- RLST 365 Native North American Religions 3 cr

Cluster II: Natural Sciences and Environmental Stewardship

- BIOL 103 Life on Earth 4 cr
- BIOL 114 Environmental Science 3 cr
effective communication of socio-humanistic knowledge base to a diverse
sources to structure an effective argument; 4) synthesis and evaluation of a
employability. Among the proficiencies that the students will develop are:
1) demonstration of effective oral communication skills; 2) analysis and
evaluation of cultural data and scholarly sources; 3) interpretation of
humanistic analysis and communication skills. The certificate is completed in
the first four semesters providing students an advantage in obtaining intern-
ships as part of their undergraduate experience as well as enhanced future
skills in a scientific setting; 2) analysis and evaluation of scientific argu-
ments for scientifi c validity; 3) interpretation of scientifi c data to structure
an eff ective argument; 4) synthesis and evaluation of a series of arguments
into a comprehensive written and oral presentation; 5) eff ective commu-
nation of scientifi c knowledgebase to a general and diverse audience.

Hands-on co-curricular activities will reinforce students’ profi cienciesin-
cluding opportunities for mentorship to grow and apply their skills in their
chosen field of study.

Includes designated coursework that integrates core principles of analysis
and communication over the fi rst four semesters. Participation involves
coursework and an on-campus residency requirement for 4 consecutive
semesters. Most students can complete the certifi cate within the framework of
their 120-credit degree requirements.

Certificate—Living Learning/Global Scholarship 14

Core Curricular (1) 4
ANTH 211 Cultural Anthropology 3cr
ENGL 202 Composition II 3cr
HIST 198 Explorations in Global History 3cr
JRNL 361 Presentation Making 3cr

Co-Curricular Lab (2) 2
LLRN 100 Co-curricular Activity Lab 0.5cr
LLRN 200 Co-curricular Activity Lab 0.5cr

(1) Students will take core certifi cate courses as a cohort, one course each
semester. Cohort sections of each course will be identifi ed for students to
register. Typical cohort sequence: Fall year one ANTH 211; Spring year one
HIST 198; Fall year two JRNL 361; Spring year two ENGL 202.

(2) Students will take LLRN 100 (0.5cr) once each semester in the fi rst year
and LLRN 200 (0.5cr) once each semester in the second year.

Living Learning/Scientifi c Communication Certifi cate

The goal of this certifi cate is to provide students with enhanced Scientifi c
analysis and communication skills. The certifi cate is completed in the fi rst
four semesters providing students an advantage in obtaining internships and
external research opportunities as part of their undergraduate experience
as well as enhanced future employability. Among the proficiencies that the
students will develop are: 1) demonstration of eff ective oral communication
skills in a scientifi c setting; 2) analysis and evaluation of scientifi c argu-
ments for scientifi c validity; 3) interpretation of scientifi c data to structure
an eff ective argument; 4) synthesis and evaluation of a series of arguments
into a comprehensive written and oral presentation; 5) eff ective commu-
nication of scientifi c knowledgebase to a general and diverse audience.

Hands-on co-curricular activities will reinforce students’ profi ciencies
including opportunities for mentorship to grow and apply their skills in their
chosen field of study.

Enrolled students will participate in a living-learning community while
earning their certifi cate as a cohort. Includes designated coursework that
integrates core principles of scientifi c communication over the fi rst four
semesters. Participation involves coursework and an on-campus residency
requirement for 4 consecutive semesters. Most students can complete the
certifi cate within the framework of their 120-credit degree requirements.

Certificate—Living Learning Scientifi c Communication 15

Core Lab Science 4
BIO 104 Human Biology: How the Human Body Works or
or CHEM 111 Principles of Ecology and Evolution or
or CHEM 113 General Chemistry or
or GEOS 201 Advanced General Chemistry or
or GEOS 201 Foundations of Geology 4cr

Core Philosophy 3
PHIL 221 Symbolic Logic I or
or 101 Critical Thinking 3cr

Core Math (2) 3
MATH 217 Probability and Statistics 3cr

Interdisciplinary Certifi cates

Child and Adult Advocacy Studies Certificate (CAAST)

The CAAST Certifi cate is a 12-credit interdisciplinary program designed
for individuals who are already working in professional environments and
are seeking additional training/knowledge relevant to their work. It provides
mandated reporters and fi rst responders in child protection, child advocacy,
criminal justice, domestic violence, education, medicine, nursing, older
adult protective services, older adult advocacy, psychology, sociology,
social work, and other disciplines with evidence-based, culturally relevant
knowledge and skills to improve the outcomes for victims and perpetrators
of interpersonal violence across the lifespan.

Certificate—Child and Adult Advocacy Studies (CAAST) 12
Prerequisite: Program Coordinator(s) approval

Required Course:
PSYC 322 Violence Across the Life Span 3cr

Controlled Electives:
One additional PSYC course from the following: 3cr
PSYC 313, 314, 332, 380
Two additional SOC courses from the following: 6cr
SOC 357, 427, 428

Living Learning/Global Scholarship Certifi cate

The goal of this certifi cate is to provide students with enhanced socio-
humanistic and communication skills. The certifi cate is compiled in
the fi rst four semesters providing students an advantage in obtaining intern-
ships as part of their undergraduate experience as well as enhanced future
employability. Among the proficiencies that the students will develop are:
1) demonstration of eff ective oral communication skills; 2) analysis and eval-
uation of cultural data and scholarly sources; 3) interpretation of
sources to structure an eff ective argument; 4) synthesis and evaluation of a
series of arguments into comprehensive written and oral presentations; 5)
eff ective communication of socio-humanistic knowledge base to a diverse
audience.

Hands-on co-curricular activities will reinforce students’ profi cienciesin-
cluding opportunities for mentorship to grow and apply their skills in their
chosen field of study.

Includes designated coursework that integrates core principles of analysis
and communication over the fi rst four semesters. Participation involves
coursework and an on-campus residency requirement for 4 consecutive
semesters. Most students can complete the certifi cate within the framework of
their 120-credit degree requirements.

Certificate—Living Learning/Global Scholarship 14

Core Curricular (1) 4
ANTH 211 Cultural Anthropology 3cr
ENGL 202 Composition II 3cr
HIST 198 Explorations in Global History 3cr
JRNL 361 Presentation Making 3cr

Co-Curricular Lab (2) 2
LLRN 100 Co-curricular Activity Lab 0.5cr
LLRN 200 Co-curricular Activity Lab 0.5cr

(1) Students will take core certifi cate courses as a cohort, one course each
semester. Cohort sections of each course will be identifi ed for students to
register. Typical cohort sequence: Fall year one ANTH 211; Spring year one
HIST 198; Fall year two JRNL 361; Spring year two ENGL 202.

(2) Students will take LLRN 100 (0.5cr) once each semester in the fi rst year
and LLRN 200 (0.5cr) once each semester in the second year.

Living Learning/Scientifi c Communication Certifi cate

The goal of this certifi cate is to provide students with enhanced Scientifi c
analysis and communication skills. The certifi cate is completed in the fi rst
four semesters providing students an advantage in obtaining internships and
external research opportunities as part of their undergraduate experience
as well as enhanced future employability. Among the proficiencies that the
students will develop are: 1) demonstration of eff ective oral communication
skills in a scientifi c setting; 2) analysis and evaluation of scientifi c argu-
ments for scientifi c validity; 3) interpretation of scientifi c data to structure
an eff ective argument; 4) synthesis and evaluation of a series of arguments
into a comprehensive written and oral presentation; 5) eff ective commu-
nication of scientifi c knowledgebase to a general and diverse audience.

Hands-on co-curricular activities will reinforce students’ profi ciencies
including opportunities for mentorship to grow and apply their skills in their
chosen field of study.

Enrolled students will participate in a living-learning community while
earning their certifi cate as a cohort. Includes designated coursework that
integrates core principles of scientifi c communication over the fi rst four
semesters. Participation involves coursework and an on-campus residency
requirement for 4 consecutive semesters. Most students can complete the
certifi cate within the framework of their 120-credit degree requirements.

Certificate—Living Learning Scientifi c Communication 15

Core Lab Science 4
BIO 104 Human Biology: How the Human Body Works or
or CHEM 111 Principles of Ecology and Evolution or
or CHEM 113 General Chemistry or
or GEOS 201 Advanced General Chemistry or
or GEOS 201 Foundations of Geology 4cr

Core Philosophy 3
PHIL 221 Symbolic Logic I or
or 101 Critical Thinking 3cr

Core Math (2) 3
MATH 217 Probability and Statistics 3cr
Capstone Course

ENGL 202 Composition II or

or COMM 261 Teamwork and Communication Skills for College and Career 3cr

Co-Curricular Lab (3)

LLRN 100 Co-curricular Activity Lab 0.5cr
LLRN 200 Co-curricular Activity Lab 0.5cr

(1) Students will take core certificate courses as a Living-Learning cohort, one course each semester. Cohort sections of each course will be identified for students to register. Typical cohort sequence: Fall year one Core Lab Science; Spring year one Core Philosophy; Fall year two Core Math; Spring year two Capstone Course. The specific course in each course area will be specified one year before the start of each certificate program to coincide with freshmen recruitment.

(2) MATH 216 is interchangeable for MATH 217.
(3) Students will take LLRN 100 (0.5cr) once each semester in the first year and LLRN 200 (0.5cr) once each semester in the second year.

Shale, Gas, and Energy Certificate

The certificate includes traditional academic specialties of geographic information systems, geology, and safety sciences, which provides a broad understanding of the industry from the perspective of geological development, geospatial data analysis, and safety and environmental regulations and compliance.

Certificate—Shale, Gas, and Energy 18

Required Geoscience Courses: 6
GEOS 119 Geology of Energy Resources (1) 3cr
GEOS 409 Geology of Shale Gas Field Workshop 3cr

Required Geography Courses: 6
GEOG 109 Geographic Information Science and Systems for Energy Applications (1) 3cr
GEOG 409 Spatial Analysis Applications in the Energy Sectors Workshop 3cr

Required Safety Science Courses: 6
SAFE 104 Introduction to Safety in the Natural Gas Industry (1) 3cr
SAFE 204 Principles of Safety in the Natural Gas Industry 3cr

(1) With departmental permission, one 100-level introductory course may be substituted by an appropriate upper-division course.
The Eberly College of Business and Information Technology
Robert C. Camp, Dean
Cynthia L. Strittmatter, Associate Dean
Prashanth N. Bharadwaj, Dean’s Associate
Terry Appolonia, Assistant Dean for the Center for Leadership and Academic Student Success
Website: www.iup.edu/business

In the spring of 1994, the College of Business was renamed to commemorate the generous commitment of the Eberly family through the Eberly Family Trust to the developmental needs of the college. Departments within the Eberly College of Business and Information Technology (ECOBIT) include Accounting, Finance and Legal Studies, Management, Information Systems and Decision Sciences, and Marketing.

College Majors
- Accounting
- Finance
- Human Resource Management
- International Business
- Management
  (Tracks: General Management, Energy Management, Entrepreneurship and Small Business Management, and Supply Chain Management)
- Management Information Systems
  (Tracks: Information Systems, Information Technology)
- Marketing

Interdisciplinary Programs, Minors and Certificates
The Interdisciplinary degree programs, minors, and certificates are multidisciplinary and are not specific to one university college. Requirements for each of the interdisciplinary offerings appear in the Academic Affairs section.

Degree Programs: Public Health (Available Tracks: Behavioral and Mental Health, Environmental and Occupational Health, Epidemiology and Biostatistics, Global and Rural Communities)

Minors: Child and Adult Advocacy Studies, Global Health, Pre-Law, Professional Teamwork and Leadership, Sustainability Studies

Certificates: Child Adult and Advocacy Studies, Living Learning (Available Tracks: Global Scholarship, Scientific Communication), Shale, Gas, and Energy

Mission Statement
The mission of the Eberly College is to provide students with a broad range of high-value undergraduate and graduate business programs aimed at fostering ethical behavior and entrepreneurial spirit, and developing skills vital to their success in today’s world.

The college enrolls a highly diverse student body from Pennsylvania, other states, and from many countries around the world. The college provides a student-centered and technologically integrated learning environment. The college maintains a global focus and provides opportunities for real-world exposure and cross-cultural experience.

The Eberly College is especially committed to high-quality instruction. It is committed to research activities which enhance the quality of instruction and contribute to both the applied and basic literature of business.

Committed to the economic vitality of the region, the Eberly College engages in service activities that include opportunities for involvement of both faculty and students with the business community.

Vision Statement
The Eberly College of Business and Information Technology aspires to be a premier business school, recognized worldwide for excellence through applied learning, leadership development, cross-cultural enrichment, scholarship, and service.

Accreditation
AACSB International—the Association to Advance Collegiate Schools of Business—has accredited the undergraduate and graduate business degree programs offered by the ECOBIT. Accreditation shows that a school fulfills its mission, meets its objectives, and maintains the high standards set by AACSB International. The outcome is managers and business professionals who know how to think, communicate, solve problems, and provide leadership in the global marketplace.

Bachelor of Science Degree
For those pursuing the bachelor of science degree, IUP’s training will provide a broad liberal background in the behavioral sciences; a keen perception of the socioeconomic world in which we live and work; a foundation of general professional education for personally fruitful and socially useful careers in the varied fields of business; and an opportunity to obtain the specialized knowledge and skills essential to future occupational growth and advancement. There are seven bachelor of science degree programs offered in business—Accounting, Finance, Human Resource Management, International Business, Management (General Management, Energy Management, Entrepreneurship and Small Business Management, and Supply Chain Management), Management Information Systems (Information Systems, Information Technology), and Marketing. Each program includes a variety of business and business-related courses designed to enrich the student’s understanding of the modern business system.

A student may not pursue course work in the ECOBIT with the expectation of graduating from the college unless he/she has been accepted as a degree candidate in the college.

Enrollment in all ECOBIT courses at the 300 and 400 level is restricted to students with junior or senior standing. All students, regardless of major or program affiliation, must meet course prerequisite requirements to enroll in a given course.

Students may, in consultation with their advisors, plan their program of study to obtain a minor in an area of business specialization other than their major or a related area outside the ECOBIT.

Students can also pursue a BS degree in all of the ECOBIT’s majors and concentrations by completing the first 75 credits of the IUP BS program at the campus of PES University in Bangalore, India. Upon successful completion of these 75 credits, students can transfer these 75 PES credits to IUP and complete the remaining 45 credits at IUP and receive a BS degree in one of the majors offered by the ECOBIT at IUP. Contact the ECOBIT for further details.

ECOBIT Honors Program Track
The Eberly College of Business and Information Technology (ECOBIT) Honors Program is a highly-selective academic track of 30 credits that provides students with heightened and unique learning experiences. The program emphasizes integrated curricula, leadership development, and student/faculty interaction that are necessary to fully develop students who possess the capacity and motivation to excel. This honors program is highly encouraged for students who wish to achieve accelerated learning.

Admission to the honors program is based on a holistic approach, including SAT scores, secondary school GPA and transcripts, a letter of recommendation, and a writing sample describing the student’s academic and career goals. Selection is made by an ECOBIT Honors Selection Committee, with representation from administration, faculty, and students. All students
admitted to this distinctive program will receive an academic scholarship. To remain in the program, a student must maintain a cumulative 3.25 GPA and abide by the Eberly Business Honors code of conduct. Membership in the program also is subject to participation in leadership and campus engagement activities, which are monitored and recorded using Suitable software.

The program requires 30 honors-specific credits; included in the 30 credits are mentoring, professional development, and service learning requirements. Honors coursework is recorded on university transcripts, and students completing the ECOBIT honors program will be recognized at college-level commencement ceremonies.

ECOBIT Academic Policies

Academic Integrity Pledge
ECOBIT continually strives to strengthen the integrity and ethical conduct of both students and faculty. Majors in the ECOBIT, therefore, are required to sign a student pledge of academic honesty. The purpose of the student pledge is to build trust among students and faculty while fostering an academic environment of shared values.

Junior Standing
To be accepted for junior standing, a business major must have:
- accumulated 60 credits or more of academic credit
- achieved a minimum 2.0 cumulative GPA
- successfully completed the following courses: ACCT 201, 202, BLAW 235, COSC/IFMG 101 or IFMG 110, ECON 121, 122, ENGL 101, 202, MATH 105 or 107/108, 214, PSYC 101, and QBUS 215.
- successfully completed the following courses: MATH 105 or 107/108, 214, ENGL 101, 202, COSC/IFMG 101 or IFMG 110, ECON 121, 122, ENGL 101, 202, MATH 105 or 107/108, 214, PSYC 101, and QBUS 215.

Business majors are required to have achieved junior standing before enrolling in 300- or 400-level courses in the ECOBIT. Students who have not completed the junior-standing requirements may, with permission from the dean or dean’s designee, enroll in 300- or 400-level courses in ECOBIT. However, they may be expected to schedule courses during the winter and/or summer sessions to meet the requirements in a timely manner.

Note to Business Majors: All business core classes must be successfully completed before MGMT 495 Business Policy can be taken. No exceptions are being made. These classes include ACCT 201, ACCT 202, BCOM 321, BLAW 235, COSC/IFMG 101 or IFMG 110, FIN 310, IFMG 300, MGMT 310, MGMT 330, MKTG 320, and QBUS 215.

Residency Requirement
All of the college’s majors must take a minimum of 50 percent of their required business* credits in IUP course work. IUP credits earned by examination, such as CLEP, are counted toward IUP residency.

Restriction for Nonbusiness Majors
Students not majoring in business may count a maximum of 30 credits in business* course work toward the 120-credit-degree minimum. Business credits in excess of 30 will be permitted only as credits beyond the 120 for graduation.

*For purposes of all policies above, “business” course work consists of all ECOBIT courses except IFMG 101 and QBUS 215. ECON 334 is also treated as a “business” course. “Nonbusiness” course work consists of IFMG 101, QBUS 215, and all non-ECOBIT courses except ECON 334.

The Corporate Relations and Internship Office
IUP offers one of the largest business internships programs in Pennsylvania. Students can choose from a wide range of organizations to gain real-world experience while earning academic credit. Internship advisors are available to counsel students regarding internship prerequisites, procurement of the internship position, and scheduling to maximum benefit.

Center for Leadership and Academic Student Success (CLASS)
CLASS provides leadership opportunities designed to enhance and strengthen the undergraduate student experience. Included among them are the Eberly Business Honors Program, the College of Business Student Advisory Council, the Business Living-Learning Community, and the GPS Project. CLASS staff members also provide a full range of academic support services including academic recovery, course drop/add/withdrawal, course substitutions, scholarships, tutoring, and support referrals.

School of International Management
With the increasing demand for cross-cultural knowledge and international competence, the ECOBIT has committed itself to a comprehensive strategy of providing future business leaders with a global foundation so they may become the world-class managers of tomorrow. The School of International Management offers a rich program that will strengthen business students and provide regional businesses with personnel who have a global perspective and internationally competitive management skills. This global perspective is provided to students through broad exposure to cross-cultural course work, integration of international concepts in selected business courses, direct exposure to individuals from other cultures, and a period of residency in another country.

Business Advisory Council
Eberly College’s Business Advisory Council is a select group of more than 60 business leaders. The council helps the college in its educational and service mission through counsel and feedback on matters such as program objectives, curriculum development, program development and promotion, and recruitment of students, retention, and placement of students.

College of Business Student Advisory Council (COBSAC)
Unique at IUP, COBSAC exists to facilitate communication and collaboration among the 12 departmental student organizations and honorary societies within Eberly College. COBSAC also serves as a representative body for Eberly College students and an organizing body for college-wide activities and events.

COBSAC Member Organizations
- Association for Operations Management
- Association of Management Information Systems
- Finance Association
- Future Entrepreneurs Club
- Graduate Business Student Association
- International Business Association
- Management Association
- Phi Beta Lambda
- Phi Gamma Nu
- Society for Human Resource Management
- Student Accounting Association
- Student Managed Investment Portfolio
- Student Marketing Association

Service Units
The Management Services Group (MSG) is a confederation of consulting units instituted in 1991 by the ECOBIT in support of ongoing and start-up businesses in the Indiana County region. An integral objective of the group is to provide educational opportunities through an ongoing schedule of seminars and workshops for local businesses. The MSG consulting units are listed below.

The Small Business Development Center offers free business consulting to existing and start-up businesses in the preparation of business plans. The staff helps pull together a business plan suitable for presentation to a bank. This includes working with the client to put together a complete set of financial projections.

The Small Business Institute (SBI) was established to assist existing small businesses with various types of problem resolution. Through the SBI, undergraduate and graduate business students work under close supervision of faculty members to assist clients with accounting systems, market studies, computer system installation, business planning, and operations management.
The Government Contracting Assistance Program helps area businesses identify and respond to federal and state requests for bids for products and services. The program is funded by the Department of Defense. Contract sales generated through this program add to the vitality of the local economy.

The Center for Family Business was designed to serve the unique needs of family-owned businesses. Issues such as performance compensation, establishment of an effective corporate board, conflict resolution, management of siblings and cousin teams, succession, and estate planning are critically important and virtually ignored by other educational forums. The center provides an educational program consisting of four meetings per year that focus on the topics outlined.

The IUP ExCEl Center (Excellence in Entrepreneurial Leadership) was established to enhance the culture of entrepreneurship, innovation, and new venture creation through IUP and the local community. The center provides students across all academic disciplines with opportunities to pursue an entrepreneurial path while continuing their education. The center allows IUP students to have a full range of entrepreneurial experiences through delivery of undergraduate and graduate entrepreneurship coursework, student involvement in entrepreneurial activities, and entrepreneurial community outreach programs.

The WEDnetPA GFT Program provides for the training of Pennsylvania’s workers for a growing economy. It offers a comprehensive collection of workforce skill development tools as well as a Workforce Learning Resource Center, specifically designed to serve business and industry. Employers can tap into the program for training and grant funding initiatives, advice for planning job training to meet company goals and objectives, the latest research on best industry practices, complete online and instructor-led training courses, and rental facilities.

Business Minors for ECOBIT Students

The Accounting, Finance, Management, Management Information Systems, and Marketing minors are offered only for students who are majoring in one of the other majors in the ECOBIT and assume the common 36-credit business core.

Pre-law Interdisciplinary Minor

Successful lawyers possess excellent skills in writing and speaking and can analyze a problem and explain its solution in clear, logical terms. The Pre-law Interdisciplinary minor prepares the student especially well in these areas and provides the skills and knowledge needed to do well in the law school admissions examination. This minor may be taken with any major in the ECOBIT. Although a pre-law minor is not required for law school admission, this interdisciplinary minor will provide students with the prerequisite skills for law school. Interested students should contact the Department of Finance and Legal Studies. Please refer to the Academic Affairs section for a complete list of requirements.

Minor in Business Administration for Nonbusiness Majors

The ECOBIT offers, as a joint effort of its departments, a 21-credit minor for nonbusiness majors. The program is designed to give nonbusiness majors a general background in business with 12 credits of prescribed Liberal Studies courses and 21 credits of required business courses.

Minor—Business Administration for Nonbusiness Majors 21 Majors

Prescribed Liberal Studies:
Mathematics: MATH 214 or 217
Social Science: ECON 121
Liberal Studies Electives: COSC/IFMG 101 or IFMG 110, ECON 122

Required Business Courses: 15
ACCT 201 Accounting Principles I 3cr
ACCT 202 Accounting Principles II 3cr
FIN 310 Fundamentals of Finance 3cr

MGMT 310 Principles of Management 3cr
MKTG 320 Principles of Marketing 3cr

Other Requirements: 6
Two of the following courses with advisement:
BCOM 321 Business and Interpersonal Communications 3cr
BLAW 235 Legal Environment of Business 3cr
IFMG 300 Information Systems: Theory and Practice 3cr
MGMT 330 Production and Operations Management 3cr

Department of Accounting

Website: www.iup.edu/accounting
Sekhar Anantharaman, Chair

Accounting majors receive instruction in financial reporting system design and analysis, managerial accounting, taxation, and nonprofit accounting leading to career opportunities in public, industry, and government accounting.

Bachelor of Science—Accounting

Liberal Studies: As outlined in Liberal Studies section with the following specifications:
Mathematics: MATH 107 and 108
Natural Science: Option II
Social Science: ECON 121, PSYC 101
Liberal Studies Electives: 6cr, ECON 122, MATH 214 (1)

College: Business Administration Core 36
Required Courses:
ACCT 201 Accounting Principles I 3cr
ACCT 202 Accounting Principles II 3cr
BCOM 321 Business and Interpersonal Communications 3cr
BLAW 235 Legal Environment of Business 3cr
COSC/IFMG 101 Computer Literacy or IFMG 110 (2) Business Spreadsheet Computing 3cr
FIN 310 Fundamentals of Finance 3cr
IFMG 300 Information Systems: Theory and Practice 3cr
MGMT 310 Principles of Management 3cr
MGMT 330 Production and Operations Management 3cr
MGMT 495 Business Policy 3cr
MKTG 320 Principles of Marketing 3cr
QBUS 215 Business Statistics 3cr

Major: Accounting (3) 24
Required Courses:
ACCT 304 Intermediate Accounting I 3cr
ACCT 305 Intermediate Accounting II 3cr
ACCT 311 Cost Accounting 3cr
ACCT 401 Advanced Accounting 3cr
ACCT 421 Federal Tax I 3cr
ACCT 431 Auditing 3cr

Controlled Electives: Any two courses from the following: ACCT 303, 412, 422, 432, 441, 461 12-13

Free Electives: (4, 5) 12-13

Total Degree Requirements: 120

(1) MATH 214 or 216 or 217.
(2) IFMG 110 cannot be used as a D/F repeat for COSC/IFMG 101.
(3) IFMG 110 cannot be used as a D/F repeat for COSC/IFMG 101.
(4) Students must meet the grade prerequisite(s) listed in the course description section of this catalog before advancing to the next course.
(5) Students interested in pursuing the following career paths should consider:
   — Certified Public Accountant (CPA): ACCT 422, 441, 493, and BLAW 336. Students seeking certification as a CPA will be required to satisfy the educational requirement of 150cr.
   — Certified Management Accountant (CMA): ACCT 412, 432, 461, 493
   — Certified Fraud Examiner (CFE): ACCT 432, 493, CRIM 101,
Minor—Accounting (1) 18

(for business majors and students majoring in computer science, criminology, economics, employment and labor relations, fashion merchandising, hospitality management, and sport administration)

Prescribed Liberal Studies:
Mathematics: MATH 214 or 217
Social Science: ECON 121
Liberal Studies Elective: COSC/IFMG 101

Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ACCT 201</td>
<td>Accounting Principles I</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 202</td>
<td>Accounting Principles II</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 304</td>
<td>Intermediate Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 305</td>
<td>Intermediate Accounting II</td>
<td>3</td>
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Two courses from the following: 6

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>ACCT 311</td>
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<td>ACCT 401</td>
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<td>ACCT 421</td>
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<td>ACCT 422</td>
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<tr>
<td>ACCT 431</td>
<td></td>
</tr>
<tr>
<td>ACCT 432</td>
<td></td>
</tr>
</tbody>
</table>

(1) Minor course requirements must be completed with a minimum cumulative GPA of 2.0.

Department of Finance and Legal Studies

Website: www.iup.edu/financelegal
Ibrahim Alfaheh, Chair

Finance Major

The Finance program, leading to a degree of Bachelor of Science, is designed to educate students who are interested in pursuing one of the many career opportunities within the areas of corporate and personal financial management, banking, insurance, other financial institutions, and investments.

The objective of the Finance program is to provide students with a broad base of knowledge, both theoretical and practical, as well as the analytical and technical skills necessary to build a successful career in an exciting and rapidly changing field.

Legal Studies

Legal Studies offers law and law-related courses with special emphasis on business applications. Legal Studies provides the student with a broad legal and ethical foundation necessary to a career in business or as preparation for pursuit of a law or law-related career.

Pre-law Interdisciplinary Minor

This minor may be taken with any major in the ECOBIT. Please refer to the Academic Affairs section for a complete list of requirements.

Bachelor of Science—Finance

Liberal Studies: As outlined in Liberal Studies section with the following specifications:
Mathematics: MATH 107 and 108
Natural Science: Option II
Social Science: ECON 121, PSYC 101
Liberal Studies Electives: 6 credits, ECON 122, MATH 214 (1)

College: Business Administration Core

Required Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 201</td>
<td>Accounting Principles I</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 202</td>
<td>Accounting Principles II</td>
<td>3</td>
</tr>
<tr>
<td>BCOM 321</td>
<td>Business and Interpersonal Communications</td>
<td>3</td>
</tr>
<tr>
<td>BLAW 235</td>
<td>Legal Environment of Business</td>
<td>3</td>
</tr>
<tr>
<td>COSC/IFMG 101</td>
<td>Computer Literacy</td>
<td>3</td>
</tr>
<tr>
<td>or IFMG 110</td>
<td>Business Spreadsheet Computing</td>
<td>3</td>
</tr>
<tr>
<td>FIN 310</td>
<td>Fundamentals of Finance</td>
<td>3</td>
</tr>
</tbody>
</table>

IFMG 300 Information Systems: Theory and Practice 3
MGMT 310 Principles of Management 3
MGMT 330 Production and Operations Management 3
MGMT 495 Business Policy 3
MKTG 320 Principles of Marketing 3
QBUS 215 Business Statistics 3

Major: Finance 24

Required Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIN 315</td>
<td>Financial Analysis Using Electronic Spreadsheets</td>
<td>3</td>
</tr>
<tr>
<td>FIN 320</td>
<td>Corporate Finance</td>
<td>3</td>
</tr>
<tr>
<td>FIN 324</td>
<td>Principles of Investments</td>
<td>3</td>
</tr>
<tr>
<td>FIN 360</td>
<td>Insurance and Risk Management</td>
<td>3</td>
</tr>
<tr>
<td>FIN 410</td>
<td>Financial Institutions and Markets</td>
<td>3</td>
</tr>
<tr>
<td>FIN 422</td>
<td>Seminar in Finance</td>
<td>3</td>
</tr>
<tr>
<td>FIN 425</td>
<td>Financial Derivatives</td>
<td>3</td>
</tr>
</tbody>
</table>

Controlled Electives:

One course from the following: ACCT 305, 421, BLAW 336, ECON 325, 334, 345, 356, FIN 365 and 366 (3), 420, 424, 481, 493, REAL 382

Free Electives: 12-13

Total Degree Requirements: 120

Minor—Finance (1, 2) 18

(for business majors in the ECOBIT only)

Required Courses: 9

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIN 310</td>
<td>Fundamentals of Finance</td>
<td>3</td>
</tr>
<tr>
<td>FIN 320</td>
<td>Corporate Finance</td>
<td>3</td>
</tr>
<tr>
<td>FIN 324</td>
<td>Principles of Investments</td>
<td>3</td>
</tr>
</tbody>
</table>

Controlled Electives: 9

Three courses from FIN or REAL at 300 level or higher

(1) Minor course requirements must be completed with a minimum cumulative GPA of 2.0.
(2) Maximum of two REAL courses.

Department of Information Systems and Decision Sciences

Website: www.iup.edu/isds
Dr. Pankaj Chaudhary, Chair

Management information systems prepares students for careers in computer-based information systems in organizational environments. Newer areas such as networking, cybersecurity, and user/manager involvement in the global business environment are integrated with the traditional skills of programming, analysis and design, database development, various architectures, and application development. Microprocessor technology, the mainframe environment, and client server applications are included, as well as an emphasis on business computing issues such as profitability, budgeting, collaboration, and project management. These adhere to standards for a balanced curriculum as promulgated by the Association for Information Systems (AIS), the technology-accrediting arm of the Association to Advance Collegiate Schools of Business (AACSB). AIS now comprises organizations such as AITP, SIMS, TIMS, ORSA, and ICIS.

Decision sciences provides students with a knowledge of statistical and quantitative methods used to enhance the business decision process. The methodologies include linear programming, forecasting, simulation, stochastic process, queuing, and network models.

The department creates a learning process that instills in its graduates respect, integrity, excellence, and a commitment to lifelong learning. Internship experiences facilitate the student’s entry into full-time employment in a rapidly changing technological environment.
Information Systems Track

The Information Systems Track prepares students for careers in computer-based information systems in organizational environments. Integrates areas such as networking, cybersecurity, and user/manager involvement in the global business environment with the traditional skills of programming, analysis and design, database development, architecture designs, and application development. Project management, Internet of Things (IoT), and client server applications are included, as well as an emphasis on business computing issues such as profitability, budgeting, collaboration, and front end/back end system processing.

Information Technology Track

The Information Technology (IT) Track of the management information systems (MIS) program provides graduates with the skills and knowledge to take on appropriate professional positions in the IT field upon graduation. It aims also at providing skills for graduates to grow into leadership positions and/or pursue research or graduate studies in the field. The IT field is a vibrant field that emerged as a result of the rapid advances in the technology field and the need for organizations to adjust quickly to these advances. IT Track graduates should be the first to take the lead to fill the computing needs of organizations. The IT Track encompasses courses in the latest technological advances, thus enabling graduating students to take the lead in this vibrant field.

Minors

The department welcomes minors for students who are majoring in other business programs. The Management Information Systems minor offers other business majors a technical enhancement to their area of interest, a necessity for today’s business manager.

Bachelor of Science—Management Information Systems/Information Technology Track

Liberal Studies: As outlined in Liberal Studies section with the following specifications:
- Mathematics: MATH 107 and 108
- Natural Science: Option II
- Social Science: ECON 121, PSYC 101

Liberal Studies Electives: 6cr, ECON 122, MATH 214 (1) no courses with IFMG prefix

Free Electives:

Total Degree Requirements:

Bachelor of Science—Management Information Systems/Information Technology Track

Liberal Studies: As outlined in Liberal Studies section with the following specifications:
- Mathematics: MATH 107 and 108
- Natural Science: Option II
- Social Science: ECON 121, PSYC 101

Liberal Studies Electives: 6cr, ECON 122, MATH 214 (1) no courses with IFMG prefix

College: Business Administration Core

- Required Courses:
  - ACCT 201 Accounting Principles I 3cr
  - ACCT 202 Accounting Principles II 3cr
  - BCOM 321 Business and Interpersonal Communications 3cr
  - BLAW 235 Legal Environment of Business 3cr
  - COSC/IFMG 101 Computer Literacy 3cr
  - or IFMG 110 (2) Business Spreadsheet Computing 3cr
  - FIN 310 Fundamentals of Finance 3cr
  - IFMG 300 Information Systems: Theory and Practice 3cr
  - MGMT 310 Principles of Management 3cr
  - MGMT 330 Production and Operations Management 3cr
  - MGMT 495 Business Policy 3cr
  - MKTG 320 Principles of Marketing 3cr
  - QBUS 215 Business Statistics 3cr

Major: Information Systems Track

- Required Courses:
  - IFMG 210 Introduction to Front-End Business Applications 3cr
  - or IFMG 230 Introduction to Back-End Business Applications 3cr
  - IFMG 250 Business Systems Technology 3cr
  - IFMG/COCS 352 LAN Design and Installation 3cr
  - IFMG 390 Database Theory and Practice 3cr
  - IFMG 460 Analysis and Logical Design 3cr
  - IFMG 475 Project Management and Implementation 3cr

- Controlled Electives: (3)
  - One course from the following: CRIM 321 or 323 or any course with prefix COSC, IFMG (except IFMG 300) or QBUS 300 and above.

- Free Electives: 12-13

- Total Degree Requirements: 120

- 1) MATH 214 or 216 or 217.
- 2) IFMG 110 cannot be used as a D/F repeat for COSC/IFMG 101.
- 3) A student may choose to fulfill the requirements through an internship.

Minor—Management Information Systems (1)

(for business majors in the ECObIT only)

- Required Courses:
  - IFMG 210 Introduction to Front-End Business Applications 3cr
  - IFMG 230 Introduction to Back-End Business Applications 3cr
  - IFMG 300 Information Systems: Theory and Practice 3cr
  - IFMG 390 Database Theory and Practice 3cr

- Controlled Electives: 6cr
  - Six credits from any IFMG and/or QBUS courses except IFMG 101, 201, and QBUS 215

- 1) Minor course requirements must be completed with a minimum cumulative GPA of 2.0.
Entrepreneurship and Small Business Management, and Energy Management.


**Management**

**General Management Track**

While both management theory and application are taught in all of the department’s majors, this track is distinguished by its emphasis on the achievement of organized goals through the efforts of organization members.

**Energy Management Track**

This is an interdisciplinary track that offers an introduction to the global energy industry from a number of perspectives, including geography, geoscience, and business.

**Entrepreneurship and Small Business Management Track**

Students taking this track will focus on creation and operation of a small business. This track is also for graduates who will be working in small businesses where the manager often must perform several managerial roles and manage several functions.

**Supply Chain Management Track**

Students in this track are well-grounded in both theory and application, focusing on production, operations, quality issues, and inventory and capacity management.

**Human Resource Management**

The bachelor of science degree program in human resource management prepares individuals in both the theoretical and applied aspects of managing the human resources function in organizations as a generalist or specialist. Students will gain expertise in areas such as job design, staffing, training, compensation, and performance appraisal.

**International Business**

The bachelor of science degree program in international business offers students an opportunity to acquire a thorough understanding of managing global operations in the contemporary business environment. In addition, students develop skills in a traditional functional area (finance, human resources, marketing). The combination of these two objectives enables students to successfully perform in today’s competitive global economy.

**Bachelor of Science—Management/General Management Track**

**Liberal Studies:** As outlined in Liberal Studies section with the following specifications:

- **Mathematics:** MATH 107 and 108
- **Natural Science:** Option II
- **Social Science:** ECON 121, PSYC 101

**Liberal Studies Electives:**

- 6cr, ECON 122, MATH 214 (1)

**College: Business Administration Core**

**Required Courses:**

- ACCT 201 Accounting Principles I 3cr
- ACCT 202 Accounting Principles II 3cr
- BCOM 321 Business and Interpersonal Communications 3cr
- BLAW 235 Legal Environment of Business 3cr
- COSC/IFMG 101 Computer Literacy 3cr
- or IFMG 110 (2) Business Spreadsheet Computing 3cr
- FIN 310 Fundamentals of Finance 3cr
- IFMG 300 Information Systems: Theory and Practice 3cr
- MGMT 310 Principles of Management 3cr
- MGMT 330 Production and Operations Management 3cr
- MGMT 495 Business Policy 3cr
- MKTG 320 Principles of Marketing 3cr
- QBUS 215 Business Statistics 3cr

**Major:**

**Required Courses:**

- ECON XXX Any advanced 300-400-level ECON course 3cr
- MGMT 300 Human Resource Management 3cr
- MGMT 311 Human Behavior in Organizations 3cr
- MGMT 428 Seminar in Management 3cr
- MGMT 434 Quality Management 3cr
- MGMT 451 International Management 3cr
- MGMT XXX Any one MGMT course 3cr

**Controlled Electives:** 3cr

Any advanced business electives from 300-level courses or above. MGMT 493 may be used to meet this requirement.

**Free Electives:** (5) 12-13

**Total Degree Requirements:** 120

(1) MATH 214 or 216 or 217.
(2) IFMG 110 cannot be used as a D/F repeat for COSC/IFMG 101.
(3) MGMT 275 will be considered an advanced business elective.

**Bachelor of Science—Management/General Management Track**

**Liberal Studies:**

- As outlined in Liberal Studies section with the following specifications:
- **Mathematics:** MATH 107 and 108
- **Natural Science:** Option II, GEOS 201
- **Social Science:** ECON 121, PSYC 101

**Liberal Studies Electives:**

- 6cr, ECON 122, MATH 214 (1)

**College: Business Administration Core**

**Required Courses:**

- ACCT 201 Accounting Principles I 3cr
- ACCT 202 Accounting Principles II 3cr
- BCOM 321 Business and Interpersonal Communications 3cr
- BCOM 322 Business and Interpersonal Communications 3cr
- BLAW 235 Legal Environment of Business 3cr
- COSC/IFMG 101 Computer Literacy 3cr
- FIN 310 Fundamentals of Finance 3cr
- IFMG 300 Information Systems: Theory and Practice 3cr
- MGMT 310 Principles of Management 3cr
- MGMT 330 Production and Operations Management 3cr
- MGMT 495 Business Policy 3cr
- MKTG 320 Principles of Marketing 3cr
- QBUS 215 Business Statistics 3cr

**Major:**

**Required Courses:**

- BLAW 441 The Law of Property Oil and Gas Leasing 3cr
- ECON 361 Environmental Economics 3cr
- ECON 462 Energy Economics 3cr
- FIN 401 Energy Finance 3cr
- GEOG 316 Introduction to Geographic Information Systems 3cr
- GEOG 435 Geography of Energy 3cr
- MGMT 440 Introduction to Energy Management 3cr

**Controlled Electives:**

- One course from the following: ACCT 475, BLAW 442, ELR 480 3cr

**Free Electives:**

- 12-13

**Total Degree Requirements:** 120
Bachelor of Science—Management/Entrepreneurship and Small Business Management Track

**Liberal Studies**: As outlined in Liberal Studies section with the following specifications:
- **Mathematics**: MATH 107 and 108
- **Natural Science**: Option II
- **Social Science**: ECON 121, PSYC 101

**Liberal Studies Electives**: 6cr, ECON 122, MATH 214 (1)

**College: Business Administration Core**

<table>
<thead>
<tr>
<th>Required Courses</th>
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<tr>
<td>ACCT 201</td>
<td>Accounting Principles I</td>
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<tr>
<td>ACCT 202</td>
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<td>BCOM 321</td>
<td>Business and Interpersonal Communications</td>
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<td>BLAW 235</td>
<td>Legal Environment of Business</td>
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<td>COSC/IFMG 101</td>
<td>Computer Literacy</td>
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<tr>
<td>or IFMG 110 (2)</td>
<td>Business Spreadsheet Computing</td>
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<tr>
<td>FIN 310</td>
<td>Fundamentals of Finance</td>
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<tr>
<td>IFMG 300</td>
<td>Information Systems: Theory and Practice</td>
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<td>MGMT 310</td>
<td>Principles of Management</td>
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<td>MGMT 330</td>
<td>Production and Operations Management</td>
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<td>MGMT 495</td>
<td>Business Policy</td>
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<td>MKTG 320</td>
<td>Principles of Marketing</td>
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<tr>
<td>QBUS 215</td>
<td>Business Statistics</td>
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**Major**: 24

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>MGMT 3xx/4xx or ACCT 311</td>
<td>3cr</td>
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<tr>
<td>Advanced MGMT elective or ACCT 311</td>
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<tr>
<td>MGMT 275</td>
<td>Introduction to Entrepreneurship</td>
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<tr>
<td>MGMT 325</td>
<td>Small Business Management</td>
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<tr>
<td>MGMT 403</td>
<td>Small Business Planning</td>
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<tr>
<td>MGMT 492</td>
<td>Small Business/Entrepreneurship Internship</td>
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<tr>
<td>Major Area Restricted Electives</td>
<td>6cr</td>
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</table>

**Free Electives**: 13-14

**Total Degree Requirements**: 120

(1) MATH 214 or 216 or 217.
(2) IFMG 110 cannot be used as a D/F repeat for COSC/IFMG 101.

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Bachelor of Science—Human Resource Management

**Liberal Studies**: As outlined in Liberal Studies section with the following specifications:
- **Mathematics**: MATH 107 and 108
- **Natural Science**: Option II
- **Social Science**: ECON 121, PSYC 101

**Liberal Studies Electives**: 6cr, ECON 122, MATH 214 (1)

**College: Business Administration Core**

<table>
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<tr>
<th>Required Courses</th>
<th>36</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 201</td>
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**Major**: 24

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**Free Electives**: 12-13

**Total Degree Requirements**: 120

(1) MATH 214 or 216 or 217.
(2) IFMG 110 cannot be used as a D/F repeat for COSC/IFMG 101.

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Bachelor of Science—International Business

**Liberal Studies**: As outlined in Liberal Studies section with the following specifications:
- **Mathematics**: MATH 107 and 108
- **Natural Science**: Option II
- **Social Science**: ECON 121, PSYC 101

**Liberal Studies Electives**: 6cr, ECON 122, MATH 214 (1)

**College: Business Administration Core**

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**Free Electives**: 12-13

**Total Degree Requirements**: 120

(1) MATH 214 or 216 or 217.
(2) IFMG 110 cannot be used as a D/F repeat for COSC/IFMG 101.
Candidates must demonstrate a conversational proficiency in a foreign language. This requirement may be met by (a) a successful completion of 9 intermediate-level credits in a specific language, or (b) successful completion of an exemption or credit examination in lieu of the above. A foreign student, registered as such at IUP, whose acquired native language is other than English and who demonstrates an acceptable proficiency in English, can meet the foreign language requirement by successful completion of an exemption examination in the acquired native language.

(4) Candidates must document one semester of foreign residence (minimum of three months). Normally, the foreign residency requirement will be met in conjunction with a work experience, internship, or student exchange. A substitute cross-cultural experience may be permitted with the academic advisor’s recommendation. The foreign language requirement is a prerequisite to the foreign residency requirement.

Minor—Management (1) 18
(for business majors in the ECOBIT only)

Required Courses:
- MGMT 275 Introduction to Entrepreneurship 3cr
- MGMT 300 Human Resource Management 3cr
- MGMT 310 Principles of Management 3cr
- MGMT 434 Quality Management 3cr
- MGMT 451 International Management 3cr
- One MGMT 1XX, 2XX, 3XX, or 4XX course 3cr

(1) Minor course requirements must be completed with a minimum cumulative GPA of 2.0.

Minor in Entrepreneurship for Fine Arts

This minor for nonbusiness majors program assumes no prior knowledge of business. Fine arts students are often involved in starting and running their own business, developing and starting performing groups, and developing and running nonprofit community theatres. Students will develop the skills necessary to evaluate opportunities within their industry. They will learn to 1) analyze their competition, 2) develop marketing and financial plans, 3) explain intellectual property rights, 4) negotiate contracts, and 5) write a business plan that could be used to obtain financing from banks, investors, or other sources of funding. These skills are all essential for the creation and development of new ventures. This is a joint effort of four departments and represents an 18-credit minor for fine arts majors. The program is designed to give nonbusiness majors a general background in starting and running a small business.

Minor—Entrepreneurship for Fine Arts 18

ACCT 200 Foundations of Accounting 3cr
ECON 122 Principles of Microeconomics 3cr
FIAR 401 Creativity and Innovation in the Arts 3cr
MGMT 275 Introduction to Entrepreneurship 3cr
MGMT 450 Case Studies in Arts Management 3cr
MKTG 320 Principles of Marketing 3cr

Department of Marketing
Website: www.iup.edu/marketing
Framarz Byramjee, Chair

The bachelor of science degree program in marketing is designed to prepare its majors for a wide range of careers in private and public sector marketing, including sales management, retailing, brand management, advertising, distribution and logistics, customer relationship management, marketing research, public relations, marketing for nonprofit organizations, e-commerce, and international marketing. The program focuses on integrating technical knowledge in all areas of marketing with analytical and communication skills to prepare students for the challenges of the global competition in the 21st century.

Bachelor of Science—Marketing

Liberal Studies: As outlined in Liberal Studies section with the following specifications:
Mathematics: MATH 107 and 108 47-48
Natural Science: Option II
Social Science: ECON 121, PSYC 101
Liberal Studies Electives: 6cr, ECON 122, MATH 214 (1)
or IFMG 110 (2) Business Spreadsheet Computing 3cr
FIN 310 Fundamentals of Finance 3cr
IFMG 300 Information Systems: Theory and Practice 3cr
MGMT 310 Principles of Management 3cr
MGMT 330 Production and Operations Management 3cr
MGMT 495 Business Policy 3cr
MKTG 320 Principles of Marketing 3cr
QBUS 215 Business Statistics 3cr

Major: Marketing 24
Required Courses: 15-18cr
MKTG 321 Consumer Behavior 3cr
MKTG 421 Marketing Research 3cr
MKTG 450 Marketing Strategy 3cr
A minimum of two courses from the following:
MKTG 430 International Marketing 3cr
MKTG 431 Business-to-Business Marketing 3cr
MKTG 435 Professional Selling and Sales Management 3cr

Major Electives: Select 6-9cr from the following: 6-9cr
MKTG 350, 432, 433, 434, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 481, 482, 493;

Free Electives: 12-13
Total Degree Requirements: 120
(1) MATH 214 or 216 or 217.
(2) IFMG 110 cannot be used as a D/F repeat for COSC/IFMG 101.

Minor—Marketing (1) 18
(for business majors and students majoring in fashion merchandising, sports administration, art, journalism and public relations, or hospitality management)

Required Courses:
MKTG 320 Principles of Marketing 3cr
MKTG 321 Consumer Behavior 3cr
Four additional MKTG courses 12cr

(1) Minor course requirements must be completed with a minimum cumulative GPA of 2.0.
The College of Education and Communications

Lara M. Luetkehans, Dean
Lynanne Black, Dean's Associate for Academic Affairs
Sue A. Rieg, Dean's Associate for Educator Preparation
Holly J. Travis, Dean's Associate for Educator Preparation
Holly B. Rougeaux, Assistant Dean for Educational Effectiveness and Innovations
Marcy L. Barna, Budget and Operations Manager
Jeffrey J. Fratangel, Director of Recruitment and Public Relations
Website: www.iup.edu/educomm

Since its founding in 1875 as the Indiana Normal School, Indiana University of Pennsylvania has been widely recognized for its excellent programs in teacher education. Although the scope of the university has been greatly expanded, the College of Education and Communications continues the tradition of preparing outstanding teachers to serve the students of the commonwealth and the nation.

The college comprises eight multidimensional departments and one center that offer 25 programs leading to bachelor’s, master’s, and doctoral degrees. Included in the college are Communication Disorders, Special Education, and Disability Services; Communications Media; Counseling; Developmental Studies; Educational and School Psychology; Professional Studies in Education; Student Affairs in Higher Education; and the Center for Career and Technical Personnel Preparation.

The college is well-known for its opportunities to integrate hands-on learning. More than 100 students enjoy early field experiences each semester. In addition, the college places roughly 100 student teachers each year in public schools that provide a full semester of supervised teaching experience. Students are encouraged to take advantage of a full range of activities offered in urban, rural, and multicultural settings.

Practical experiences are important for students majoring in communications media. Students in this program are prepared in one of the largest internship programs in Pennsylvania. They select supervised work experiences with agencies throughout the commonwealth and neighboring states; many students are so successful in their internship placements, they are hired immediately upon graduation.

Mission Statement

The college provides leading-edge development and growth opportunities for students and professionals in education and allied fields.

Vision Statement

The college will be known nationally and internationally for the preparation of practitioners in education to serve a global society. The college will be prepared to serve a clientele of graduate and undergraduate scholars from increasingly diverse backgrounds. Teacher-scholars will apply diversified delivery systems to instruction, research, and service to meet the contemporary societal challenges.

Degree Requirements

All bachelor’s degree candidates must satisfactorily complete a minimum of 120 credits to include all Liberal Studies and major requirements. All bachelor of science in education degree candidates must also complete the IUP 3-Step Process for Teacher Education as defined by Chapter 354 of the Pennsylvania Education Code and in accordance with university policies.

Associations and Organizations

- American Association of Colleges of Teacher Education (AACTE)
- American Psychological Association (APA)
- American Society for Training and Development (ASTD)
- American Speech-Language-Hearing Association (ASHA)
- Association for Childhood Education International (ACEI)
- Council for Accreditation of Counseling and Related Educational Programs (CACREP)
- Council for Exceptional Children (CEC)
- Council of Education of the Deaf (CED)
- National Association for the Education of Young Children (NAEYC)
- National Association of School Psychologists (NASP)
- National Broadcasting Society (NBS)
- National Council of Social Studies
- National Council of Teachers of Mathematics
- National Council of Teachers of English
- National Middle School Association (NMSA)
- Pennsylvania Association of Colleges of Teacher Education (PAC-TE)
- Pennsylvania Department of Education (PDE)
- Society of Health and Physical Educators (SHAPE)
- Teacher Education Council of State Colleges and Universities (TEC-SHU)

Undergraduate Degrees, Majors, Minors, Certificates and Concentrations

- Bachelor of Arts: General Studies
- Bachelor of Science: Communications Media (Media Marketing, Media Production, or Media Studies Tracks), Disability Services, Speech-Language Pathology and Audiology
- Bachelor of Science in Education: Business Education, Early Childhood Education/Special Education, Early Childhood Education/Middle-Level Education 4-8 with Mathematics, Science, Social Studies, or English/Language Arts Specialization, Special Education, Vocational/Technical Education
- Associate of Arts: General Studies
- Minors: Communications Media, Deaf Studies, Educational Psychology, Educational Technology, Special Education
- Track: College of Education and Communications Honors

Interdisciplinary Programs, Minors and Certificates

The Interdisciplinary degree programs, minors, and certificates are multidisciplinary and are not specific to one university college. Requirements for each of the interdisciplinary offerings appear in the Academic Affairs section.

Degree Programs: Public Health (Available Tracks: Behavioral and Mental Health, Environmental and Occupational Health, Epidemiology and Biostatistics, Global and Rural Communities)

Minors: Child and Adult Advocacy Studies, Global Health, Pre-Law, Professional Teamwork and Leadership, Sustainability Studies

Certificates: Child Adult and Advocacy Studies, Living Learning (Available Tracks: Global Scholarship, Scientific Communication), Shale, Gas, and Energy
Graduate Programs and Certifications

- **Master of Education**: Business Education, Education, Educational Psychology, Literacy, School Counseling, and Special Education
- **Master of Arts**: Clinical Mental Health Counseling, Instructional Design and Technology, and Student Affairs in Higher Education
- **Master of Science**: Speech-Language Pathology and Strategic Communications
- **Doctor of Education**: Administration and Leadership Studies and Curriculum and Instruction
- **Doctor of Philosophy**: Communications Media and Instructional Technology, Counselor Education and Supervision, School Psychology
- **Graduate-Level Certifications**: Autism, Business Education, Developmental Educators, Elementary/Secondary Principal, Licensed Professional Counselor, Reading Specialist, School Counseling, Special Education, Superintendent's Letter of Eligibility, Supervisor-Pupil Personnel Services K-12

Information describing master’s and doctoral programs in education may be found in the current issue of the **Graduate Catalog**.

Honors Track, College of Education and Communications

The Honors Track enables students to participate in advanced study in the areas of learning and instructional theory, motivation to learn, assessment of student learning, classroom management, and the psychology of adolescent education. The Honors Track is encouraged for exceptional students in all fields of education. Honors course work is recorded on university transcripts, and students completing the Education Honors Track will be recognized at departmental commencement ceremonies.

Eligibility and Requirements: This track is open by permission to all education majors. To apply, an application should be filed with the Educational and School Psychology Department chair. Students may apply upon acceptance to IUP, or current students may make application following completion of one semester of course work. Applicants must have a minimum 3.25 GPA in total university or high school course work to apply. Students accepted before taking EDSP 102 are required to take all three of the courses offered. Students accepted following completion of a nonhonors section of EDSP 102 will be required to take all three of the courses offered (EDSP 373/H, 376/H, and 378/H) in addition to 477/H and the Honors Internship. Students must earn at least a B in each course completed for the track to proceed and must maintain a 3.25 cumulative GPA. To determine how Honors Track courses will be integrated into existing requirements for their major, students should consult their advisors.

College of Education and Communications Honors Track 13

**Required Courses:**

- EDSP 102/H/ Educational Psychology 3cr
- EDSP 477/H/ Assessment of Student Learning: Design and Interpretation of Educational Measures 3cr
- EDSP 493/H/ Educational Psychology Honors Internship 1cr
- Two or three courses from the following: (1) EDSP 373/H/ Psychology of Adolescent Education 3cr
- EDSP 376/H/ Behavior Problems 3cr
- EDSP 378/H/ Learning 3cr

(1) Students accepted following completion of a nonhonors section of EDSP 102 are required to take all three of the courses offered. Students who complete EDSP 102/H/ are required to take two of the three courses offered.

Change of Major to a Teacher Education Program

Currently enrolled students who wish to make application for a teacher education program may get an application for a change of major from the college dean’s office or department that houses the major. Secondary education programs are housed in the college of their respective disciplines. A minimum cumulative GPA of 3.0 is required for all education majors by Chapter 354 of the Pennsylvania Education Code.

Change of major applications must be submitted to the appropriate department chair. Applications are reviewed by the chair and/or teacher education coordinator. The recommendation is then forwarded to the college dean’s office for final review and action. Students must also comply with the IUP 3-Step Process for Teacher Education as appropriate to their current status. This information can be viewed on the College of Education and Communications website at [www.iup.edu/education](http://www.iup.edu/education).

IUP 3-Step Process for Teacher Education

**Step 1. Application for Teacher Education**

Eligibility requirements for enrolling in the professional education sequence:

- A minimum of 48 earned credits and a 3.0 cumulative GPA
- Successful completion of the following (scores may be mixed and matched): The Pre-Professional Academic Performance Assessment (PAPA), Praxis Core, SAT, and/or ACT exams with the minimum passing scores established by the Pennsylvania Department of Education.
- Completion of the following courses with a minimum grade of “C”:
  - ENGL 101
  - ENGL 121 for all majors, except; ENGL 122 for ENGL and MUHI 102 for MUED
  - EDSP 102
  - ACE 103 (or major program requirement in lieu of ACE 103); includes satisfactory evaluation of Step 1 LiveText portfolio
  - 6 credits in mathematics (level 101 or higher)
  - Act 34 criminal background check (must be renewed annually)
  - Act 151 child abuse clearances (must be renewed annually)
  - Act 24 (PDE-6004) arrest or conviction report (must be renewed annually)
  - Act 114 FBI fingerprinting (continuing enrollment in IUP Teacher Preparation Program is required for fingerprinting results to remain valid; some districts/sites require an updated ACT 114 within the year)
  - Documented completion of ACT 126 training: [www.reportabusepa@pitt.edu](http://www.reportabusepa@pitt.edu) (must be renewed annually)
  - TB test (results must be current prior to entering schools/annually; some districts/sites require a two-step TB)
  - Speech and hearing test (one time only)
  - Proof of liability insurance (annual update required or join multiple years) PSEA student membership or private insurance (must have a minimum of $1,000,000 per claim and an aggregate of $3,000,000 per occurrence if obtained via private insurance)
  - Satisfactorily completed essay
  - Advisor’s recommendation and signature
  - Documents (Clearances, TB results, and liability insurance) should be updated and uploaded into CastleBranch

- Results of Step 1 approval: Ability to register for: EDUC 242 Pre-Student Teaching I, EDUC 442 School Law, and other professional education courses

IUP education majors are encouraged to take the PAPA as soon as they are prepared for the exams. Extensive review materials and specialized workshops are available. Students who are not successful after five attempts are required to meet with the dean’s associate for Educator Preparation for a consultation.

**Step 2. Application for Student Teaching**

Eligibility requirements for student teaching placement:

- Successful completion of Step 1
- Maintenance of a cumulative GPA of 3.0
- Current Act 34 clearance (must be renewed annually)
- Current Act 151 clearance (must be renewed annually)
- Current Act 114 clearance (must be renewed annually)
- Current Act 24 (PDE-6004) arrest or conviction report (must be renewed annually)
- Current documentation of completion of ACT 126 training: [www.reportabusepa@pitt.edu](http://www.reportabusepa@pitt.edu) (must be renewed annually)
- Current TB test (results must be current prior to entering schools/annually; some districts/sites require a two-step TB)
• Successful completion of ALL required PRAXIS II or PECT (Pennsylvania Educator Certification Tests) Exams (the PRAXIS and PECT cut-off scores for each test must be at or above the current PDE established passing scores at the time a candidate applies for Pennsylvania Teacher Certification)
• Proof of liability insurance (annual updated required)- PSEA membership or private insurance (must have a minimum of $1,000,000 per claim and an aggregate of $3,000,000 per occurrence if obtained via private insurance)
• Completion of all major courses and methods courses with a minimum grade of “C”
• Completion of liberal studies science courses with a minimum grade of “C”
• Advisor’s or Program Coordinator’s recommendation and signature
• Results of Step 2 approval: Ability to register for student teaching

**Step 3. Application for Graduation and Pennsylvania Teacher Certification**

Eligibility requirements:
• Successful completion of Step 2
• Successful completion of student teaching with grade of C or better
• Maintenance of a cumulative GPA of 3.0
• ** If needed verification of sliding scale Praxis 2 or PECT results based on final posted GPA
• Final satisfactory review of the LiveText Teacher Work Sample (submitted in LiveText) 9/11/2018
• Completed application for graduation
• Completed application for Pennsylvania Teacher Certification
• Copy of TIMS coversheet from PDE website
• Copy of IUP Marketplace receipt for certification processing
• The recommendation of designated student teaching supervisor and program coordinator
• The recommendation of the IUP Teacher Certification officer

Results of Step 3 approval: Recommendation to PA Department of Education for Teacher Certification

**Appeal Provision**

A student who believes that any requirement of this policy has been inequitably applied or that he/she merits special consideration may appeal through the proper sequence of channels: academic advisor, chair, and finally the dean’s associate for Educator Preparation. Appeals must be made before the end of the next regular academic semester following the application.

Every effort should be made to resolve the appeal through the described process. If, at the conclusion of the appeals process, the student is still in disagreement with the findings, the student may request review before the Teacher Education Appeals Committee of the Academy for Teacher Preparation. The committee will be composed of three members representing the faculty of the Academy for Teacher Education Preparation, the Teacher Education Coordinator Council, and senior teacher preparation students.

To initiate an appeal, the student must file a form obtained at the Office of Educator Preparation. Appeals will be heard only during the regular academic semester. The student will be expected to submit written documentation of his/her complaint about the process of review for continuation or eligibility in the Educator Preparation program. The committee will review the materials and make its recommendation to the associate dean for Educator Preparation. A final decision rests with the associate dean for Educator Preparation, who is the certification officer.

**Federal Higher Education Act Title II**

This act requires all institutions that educate teachers to publish annually the passing rates on Praxis tests for their program completers. The annual report for IUP can be found on the website www.iup.edu/education.

**Student Teaching**

Student teaching is designed to be the culminating learning experience for prospective teachers. Student teachers practice teaching and managing a classroom under the supervision of a full-time master teacher in an off-campus center. A university supervisor is assigned to work with individual student teachers and their cooperating master teachers. To gain admission to student teaching, applicants must have achieved a minimum cumulative GPA of 3.0. In addition, students must complete all requirements of the 3-Step Process and should complete all other components of the Liberal Studies and professional core before student teaching. Some programs have standards above the minimum 3.0 cumulative GPA and/or course grade expectations above the minimum grade of “C.” Each student should consult with his/her advisor for information about specific program requirements related to qualification for student teaching. He or she should also check the College of Education and Communications web pages regularly for the most current information (www.iup.edu/education).

Student teaching is the capstone experience in the program of the emerging professional educator. Student teaching assignments are the responsibility of the university. To avoid conflicts of interest, students will not be assigned to districts from which they graduated or to districts in which they permanently reside or to schools in which an immediate family member is employed. Exceptions to this policy may be made in large urban school districts such as Pittsburgh and Philadelphia, where there are numerous elementary and secondary schools so avoidance of assigning student teachers to their “home school area” can be achieved. Any exception to this policy must be approved by the dean, College of Education and Communications, or his/her designee. All official policies and procedures, regarding the student teaching experience are included as part of the college’s official Handbook for Student Teaching. The handbooks are available for download as part of the Educator Preparation website at www.iup.edu/teachereducation.

**Field Placements**

The Office of Educator Preparation determines final placements for all fieldwork conducted in the public schools. In accordance with university policy, students must be officially enrolled in the course for which the fieldwork is being done. Students entering a classroom without being duly registered are in violation of university policy and may place themselves at risk legally. Therefore, registration for all field placements is mandatory.

All official policies and procedures for field experiences are included as part of the Field Experience I and II handbook, available for download as part of the Educator Preparation website at www.iup.edu/teachereducation.

**Removal of a Student Teacher from a Student Teaching Placement**

The policy for the removal of a student teacher from a student teaching placement can be found at the website www.iup.edu/education.

**Certification Requirements**

College of Education and Communications requirements for recommendation for certification as a teacher, as well as the intermediate steps leading to commonwealth certification, are outlined in the 3-Step Process. The
Applications for certification cannot be processed until the student completes the BSEd degree or its equivalent.

Commonwealth Requirements for Teacher Certification
(Excludes Vocational Instructional Certification. See “Center for Career and Technical Personnell Preparation.”)

Certification standards for commonwealth public school teachers are established by the Pennsylvania Department of Education and the Pennsylvania Board of Education. The academic advisor of the student’s major department must verify for the dean of the College of Education and Communications that all academic requirements are met. The student’s name is then placed on the graduation list.

Applicants for certification must sign a statement attesting to United States citizenship. Applicants who are not citizens must have an immigrant visa that permits them to seek employment within the United States, and they must have declared the intent to become citizens of the United States. Applicants must also submit a physical examination report and certify they are not in the habit of using narcotic drugs in any form, do not use excessive amounts of intoxicating beverages, are not currently under indictment by legal authorities, and have not been convicted of a criminal offense.

Applicants who are unable to meet one or more of these requirements must submit a full explanation with the application. In addition, they must attest to the fact that all information supplied in the application is accurate.

The Pennsylvania Department of Education issues an Instructional I certificate to beginning teachers upon graduation from and recommendation by the College of Education and Communications.

Professional Certification Application Fee
All applicants for teacher certification or professional education certifications from the Commonwealth of Pennsylvania through IUP will be assessed a $260 application fee. Applicants for add-on and second certifications processed through IUP will also be assessed this fee. Requests for processing out-of-state teacher certification applications will be assessed a $35 processing fee per request.

Centers and Clinics
The six centers and one clinic supported by the college offer a variety of services to the university community and citizens of the Commonwealth of Pennsylvania to include diagnostic testing, remedial services, assessment, and instruction.

The Speech, Language, and Hearing Clinic is staffed by speech-language pathology faculty and supervised graduate students working toward advanced degrees in speech-language pathology. Using state-of-the-art equipment, clinic personnel provide diagnosis of speech problems and hearing tests and evaluations, as well as a regular program of therapy for clients. As part of this program, clinic staff members provide testing and necessary therapeutic services to all teacher education candidates, who must meet strict speech and hearing clearances. Regularly enrolled students at IUP, including all teacher certification candidates, are eligible to receive these services without charge.

The Child Study Center provides opportunities for school psychology graduate students in the post-master’s certification and doctoral programs to acquire professional skills under the supervision of certified faculty supervisors. Clinic personnel provide psychoeducational assessment for children and adolescents with learning and/or behavior problems. They also provide consultation for parents and public school personnel involved with these children.

The Center for Media Production and Research provides IUP students with real-world experiences in preproduction, production, and postproduction of digital media. Its primary technologies are advanced video techniques, such as green screen and digital video recording, but also include related media technologies such as animation, digital photography, video streaming, advanced audio production, and interactive software construction with video, audio, or animation components. The center supports the university and improves the region’s quality of life by providing clients with advanced digital media products and by improving the overall climate for technology companies in the region.

The Labyrinth Center provides a comprehensive and holistic approach to support IUP students with Autism Spectrum Diagnosis (ASD) as they build relationships, gain independence, experience academic success, and graduate from IUP with the professional and personal skills needed to embark on a fulfilling life and career.

The Literacy Center, housed within the Department of Professional Studies in Education, provides opportunities for graduate students in the MEd—Literacy program to gain experience toward a Reading Specialist Certification. The center offers assessment and instruction in reading and writing for children and adolescents. These instructional sessions are offered in the fall, spring, and summer. Family literacy services are also available.

The Center for Creativity and Change seeks to advance the knowledge base of undergraduate and graduate students as well as mental health professionals through the promotion and creation of professional trainings. The center is staffed by faculty members from the Department of Counseling. To successfully implement its mission statement, the center has been established with the following goals in mind: (1) organize regularly scheduled professional trainings on mental health and educational topics relevant to the counseling profession; (2) offer opportunities for mental health professionals and educators in the region to learn from nationally and internationally recognized leaders and educators in the counseling profession; (3) enable the Department of Counseling to enhance its relationships and professional reputation with students, other IUP departments, professionals in the region, alumni, internship supervisors, and national leaders; (4) provide consultation services for school districts and counseling agencies; and (5) create and offer literature (pamphlets and books) and audiovisual products for educators and mental health professionals.

Specialized Instructional Facilities
The Audio Studio has multitrack analog recording and digital capabilities. Students are able to digitally master professional-quality tracks. Both analog and digital facilities are housed in sound-dampened studios and supplemented by radio production and recording studios for medium- and small-group recording sessions.

The Advanced Audio Lab includes five digital audio workstations with professional-grade audio monitors, converters, and software supporting up to 192 tracks of CD and DVD quality audio. The stations are linked with a state-of-the-art analog/digital network enabling audio sources to be shared across stations. In addition, the lab includes various microphones and musical instruments to support recording projects.

The Full Body Motion Capture/Digital Effects Lab includes the equipment to support full body motion capture for multiple actors. This includes specialized capture hardware and software, supplemental motion management and conversion software, 3-D rendering software and hardware, and additional data transmission and storage hardware and devices.

The Graphics Multimedia Lab, located on the ground floor of Stouffer Hall, provides a variety of software applications, black-and-white and

INDIANA UNIVERSITY OF PENNSYLVANIA UNDERGRADUATE CATALOG, 2019-20 Page 73
color printing capabilities, color scanner, and a negative film scanner. The facility is used for instruction in graphics, as well as multimedia production. Software applications available in the lab include Macromedia Fireworks, Adobe Photoshop, Adobe Illustrator, and Macromedia Authorware.

The **Photography Studio** provides industry-standard photography studio equipment for students to create photographs in custom-controlled environments.

The **Portfolio Assistance Center** offers assistance in the completion of the electronic portfolio. The staff can assist in the use of the scanners, digital cameras, and video-editing hardware and software. A wealth of other software programs is available, along with workshops to assist with the digital portfolio.

The **Radio Station** at IUP, WIUP-FM, is a 1600-watt, noncommercial, student-operated facility. Students from a variety of majors volunteer as DJs and news and sports staff members. There are also many opportunities for students to host a variety of different types of music shows.

The **Speech-Language Pathology Video Observation Lab** is housed in the IUP Speech, Language, and Hearing Clinic. Funded by a Pennsylvania Department of Education Link-to-Learn Higher Education Technology grant in 2002, this is the only lab that utilizes a unique system for the digital video capture of students’ speech and language diagnostic or treatment sessions. This system facilitates students’ self-analysis of their sessions and supervisor feedback to students. The resulting digital files can also be used in classroom instruction or as components of student portfolios.

The **Television Station** broadcasts over a cable system that has a potential audience of 100,000 people. IUP-TV has approximately 100 students involved in management and production. The facility is student run with a faculty advisor and features state-of-the-art hardware and software.

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**Center for Career and Technical Personnel Preparation—Vocational-Technical Professional Studies***

**Website:** [www.iup.edu/careerteched](http://www.iup.edu/careerteched)

Paula Andrei, Assistant Director

*Noted changes to the course and credit requirements are pending final review/approval.

The Vocational-Technical Professional Studies program offers undergraduate curricula that prepare in-service teachers for vocational-technical education. Programs may lead to either a bachelor of science in education degree with certification or to professional certification only. Program graduates have a broad range of employment opportunities as teachers/trainers in secondary schools, vocational-technical schools, postsecondary schools, and business and industry.

Certification to teach vocational-technical education in the commonwealth’s secondary schools is issued to individuals who meet statutory requirements, demonstrate occupational/technical proficiency on a nationally standardized occupational competency examination (which includes documenting four years of wage earning experience), and complete 60 credits of the Pennsylvania Department of Education’s approved university program.

Certification to serve as a cooperative education teacher-coordinator in the commonwealth’s secondary schools can be earned by completing a program of studies tailored to each student’s individual background and professional needs. The program prepares individuals for managing industrial cooperative training and school-to-work transitional experiences. For people holding a valid Pennsylvania Instructional Certificate, the program of studies will be individualized based on educational credits earned.

Each program requires completion of the following credits: bachelor of science in education (120cr), cooperative education teacher/coordinator certificate (15cr), and vocational-technical education certificate (60cr*).

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**Bachelor of Science in Education—Vocational-Technical Education**

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**Liberal Studies:** As outlined in Liberal Studies section with the following specifications:

**Mathematics:** MATH 151

**Social Science:** PSYC 101

**Liberal Studies Electives:** 3cr, no courses with VOED prefix

**College:**

**Professional Educational Sequence:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACE 103</td>
<td>Digital Instructional Technology</td>
<td>3cr</td>
</tr>
<tr>
<td>EDEX 301</td>
<td>Education of Students with Disabilities in Inclusive Secondary Settings</td>
<td>2cr</td>
</tr>
<tr>
<td>EDEX 323</td>
<td>Instruction of English Language Learners with Special Needs</td>
<td>2cr</td>
</tr>
<tr>
<td>EDEX 458</td>
<td>Transition Assessment and Planning for Youth with Disabilities</td>
<td>3cr</td>
</tr>
<tr>
<td>EDSP 102</td>
<td>Educational Psychology</td>
<td>3cr</td>
</tr>
<tr>
<td>EDSP 477</td>
<td>Assessment of Student Learning: Design and Interpretation of Educational Measures</td>
<td>3cr</td>
</tr>
<tr>
<td>EDUC 442</td>
<td>School Law</td>
<td>1cr</td>
</tr>
</tbody>
</table>

**Major: Required Courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>VOED 101</td>
<td>Introduction to Career and Technical Education</td>
<td>1cr</td>
</tr>
<tr>
<td>VOED 102</td>
<td>Instructional Planning in the Career and Technical (CTE) Classroom</td>
<td>2cr</td>
</tr>
<tr>
<td>VOED 103</td>
<td>Strategies for Teaching Career and Technical Education</td>
<td>3cr</td>
</tr>
<tr>
<td>VOED 201</td>
<td>Making Accommodations for Students with Special Needs in the Career and Technical Classroom</td>
<td>1cr</td>
</tr>
<tr>
<td>VOED 202</td>
<td>Industry Linkages for Career and Technical Programs</td>
<td>3cr</td>
</tr>
<tr>
<td>VOED 203</td>
<td>Incorporating Reading and Communications Strategies in the Career and Technical Classroom</td>
<td>3cr</td>
</tr>
<tr>
<td>VOED 301</td>
<td>Integrating Math and Science in Career and Technical Education</td>
<td>3cr</td>
</tr>
<tr>
<td>VOED 302</td>
<td>Career Education in the Career and Technical Classroom</td>
<td>3cr</td>
</tr>
<tr>
<td>VOED 404</td>
<td>Research in Career and Technical Education</td>
<td>3cr</td>
</tr>
<tr>
<td>VOED 405</td>
<td>Professional Seminar in Career and Technical Education</td>
<td>3cr</td>
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</table>

**Other Requirements:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>VOED 450</td>
<td>Technical Preparation of the Vocational Professional</td>
<td>24cr</td>
</tr>
</tbody>
</table>

**Free Electives:**

<table>
<thead>
<tr>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>9-11</td>
</tr>
</tbody>
</table>

**Total Degree Requirements:**

<table>
<thead>
<tr>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>120</td>
</tr>
</tbody>
</table>

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**Certificate—Vocational-Technical Education***

**Liberal Studies:** As follows:

**English:** ENGL 101

**Humanities:** one course from list

**Mathematics:** MATH 151

**Natural Science:** one course, lab or non-lab

**Social Science:** PSYC 101

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**College:**

**Professional Educational Sequence:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACE 103</td>
<td>Digital Instructional Technology</td>
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<td>3cr</td>
</tr>
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<td>EDSP 102</td>
<td>Educational Psychology</td>
<td>3cr</td>
</tr>
<tr>
<td>EDSP 477</td>
<td>Assessment of Student Learning: Design and Interpretation of Educational Measures</td>
<td>3cr</td>
</tr>
</tbody>
</table>
EDUC 442 School Law 1cr

Major: Required Courses:

VOED 101 Introduction to Career and Technical Education 1cr
VOED 102 Instructional Planning in the Career and Technical Classroom 2cr
VOED 103 Strategies for Teaching Career and Technical Education 3cr
VOED 201 Making Accommodations for Students with Special Needs in the Career and Technical Classroom 1cr
VOED 202 Industry Linkages for Career and Technical Programs 3cr
VOED 203 Incorporating Reading and Communications Strategies in the Career and Technical Classroom 3cr
VOED 301 Integrating Math and Science in Career and Technical Education 3cr
VOED 302 Career Education in the Career and Technical Classroom 3cr
VOED 404 Research in Career and Technical Education 3cr
VOED 405 Professional Seminar in Career and Technical Education 3cr

Free Electives: 2-3

Total Certification Requirements: 60

Certificate—Secondary School Cooperative Education Teacher/Coordinator (1) 15

Existing Pennsylvania teaching certificate (Vocational Instructional I or II certificate or Instructional I or II certificate)

Required Courses:

VOED 402 Special Topics in Vocational Pedagogical Preparation 6-15cr

(1) Student may be exempt from some credit requirements based on proof of previous course work and demonstration of specific competencies.

Department of Communication Disorders, Special Education, and Disability Services

Website: www.iup.edu/special-ed

Cynthia M. Richburg, Chair

This department offers the bachelor of science in education degree program with a major in special education. Bachelor of science degree programs with a majors in disability services and in speech-language pathology and audiology are also offered. A bachelor of science in education degree program in with a a major in early childhood education/special education is offered in conjunction with the Department of Professional Studies in Education. Each major follows a prescribed sequence of courses.

The following grade policy applies to two programs of study in the department: Special Education and Speech-Language Pathology and Audiology. Individual students may appeal any aspect of the policy by making a formal written request to the Departmental Appeals Committee.

1. No more than one “D” in major courses will be accepted toward graduation and certification.
2. No “D” is permitted as the final recorded grade in any of the following courses: EDEX 425, 435, 493, EDUC 421, 461, and SPLP 122.

The following enrollment policy applies to two undergraduate programs in the department: Special Education and Speech-Language Pathology and Audiology. To enroll in a 300- or 400-level course in those programs, a student must have a minimum 3.0 cumulative GPA, must meet the other provisions of the 3-Step Process for Teacher Education, and must either be a departmental major or have permission of the department chair.

Early Childhood Education/Special Education

This Early Childhood/Special Education (ECSP) program is designed to assist students in becoming highly qualified, competent, and effective teachers of all learners in grades preK through 4. The program has an emphasis on best practices in both early childhood education and special education. Students in this program will meet the academic requirements for Pennsylvania certification in preK to grade 4 as well as special education preK to grade 8.

This program, combining course work in both early childhood education and special education with extensive field experiences, prepares students to be professional educators who are well-qualified to utilize appropriate techniques and strategies to expand all children's cognitive, social, emotional, and physical development. Field experiences will take place in a variety of settings encompassing diverse learning needs as well as learners in birth to grade 3 classrooms, preschool classrooms, K-1 classrooms, and classrooms in grades 2-4.

Admission to this program requires entering students to meet the guidelines for admission to the College of Education and Communications. Additionally, students must achieve a 3.0 GPA to apply for Step 1 of the Teacher Education process, to enroll in major courses, to student teach, and to be recommended for certification. Students must meet the requirements leading to teacher certification as outlined in this catalog.

The Urban Track, within the ECSP program offered by the departments of Professional Studies in Education and Communication Disorders, Special Education, and Disability Services, prepares students for teaching in urban school districts, especially in low-income communities with high minority enrollments where the need for high-quality teachers is great. Course work and field experiences emphasize the historical, economic, political, and socioeconomic contexts of urban schools and seek to develop within future teachers the skills, knowledge base, and sensitivities for working with students whose backgrounds and life experiences often differ in significant ways from their own.

Bachelor of Science in Education—Early Childhood Education/Special Education (*)

Liberal Studies: As outlined in Liberal Studies section with the following specifications: 43.5

Humanities: HIST 196
Mathematics: MATH 151
Natural Science: SCI 101, 102, 103, 104 (3 of 4 required)
Social Science: GEOG 101, 102, or 104, PSYC 101
Liberal Studies Electives: 3cr, MATH 152

College: 25

Preprofessional Education Sequence:

ACE 103 Digital Instructional Technology or or EDEX 103 Special Education Technology 3cr
EDSP 102 Educational Psychology 3cr

Professional Education Sequence:

EDSP 477 Assessment of Student Learning: Design and Interpretation of Educational Measures 3cr
EDUC 242 Pre-student Teaching Clinical Experience I 1cr
EDUC 342 Pre-student Teaching Clinical Experience II (early childhood) 1cr
EDUC 432 Pre-student Teaching Clinical Experience II (special education) 1cr
EDSP 442 School Law 1cr
EDUC 461 Student Teaching 6cr
EDUC 471 Student Teaching 6cr

Major: Required Courses: (1) 61

ECED 117 Family, Community, and School Relationships in a Diverse Society 2cr
ECED 200 Introduction to Early Childhood Education 3cr
ECED 221 Literature for the Young Child and Adolescent 3cr
ECED 250 Language Development 3cr
ECED 280 Maximizing Learning: Engaging All PreK to Grade 4 Learners 3cr

(*)
ECED 310 Science, Health, and Safety for All PreK to Grade 4 Learners 3cr
ECED 351 Literacy for the Emergent Reader: PreK-Grade 1 Learners 3cr
ECED 411 Social Studies for All PreK to Grade 4 Learners 3cr
ECED 451 Literacy for the Developing Reader: Grades 2-4 Learners 3cr
ECSP 112 Growth and Development: Typical and Atypical Development 3cr
ECSP 314 Creative Experiences and Play for All PreK to Grade 4 Learners 3cr
ECSP 340 Introduction to Classroom and Behavior Management 3cr
EDEX 110 Introduction to Special Needs PreK to Grade 8 Learners 3cr
EDEX 269 Identifying and Understanding Children with Academic and Social Learning Needs from Preschool through Adulthood 3cr
EDEX 278 Identifying and Understanding Children with Significant Adaptive Behavior and Learning Needs from Birth through Adulthood 3cr
EDEX 323 Instruction of English Language Learners with Special Needs 2cr
EDEX 424 Strategic Assessment and Instruction in Expository Texts 3cr
EDEX 435 Methods and Curriculum–Severe Cognitive Disabilities 3cr
EDEX 460 Family Perspectives on Disability 3cr
MATH 320 Mathematics for Early Childhood 3cr
MATH 330 Teaching Mathematics in the Elementary School 3cr

Total Degree Requirements: 129.5

(*) See requirements leading to teacher certification, titled “3-Step Process for Teacher Education,” in the College of Education and Communications section of this catalog.

(1) A 3.0 cumulative GPA is required to register in the Teacher Certification Sequence courses.

Bachelor of Science in Education—Early Childhood Education/Special Education Urban Track (*)

Liberal Studies: As outlined in Liberal Studies section with the following specifications:

Humanities: HIST 196
Mathematics: MATH 151
Natural Science: SCI 101, 102, 103, 104 (3 of 4 required) (1)
Social Science: GEOG 101, 102, or 104, PSYC 101

Liberal Studies Electives: 3cr, MATH 152

College: 23

Preprofessional Education Sequence:
ACE 103 Digital Instructional Technology or
or EDEX 103 Special Education Technology 3cr
EDSP 102 Educational Psychology 3cr

Professional Education Sequence:
EDSP 477 Assessment of Student Learning: Design and Interpretation of Educational Measures 3cr
EDUC 242 Pre-student Teaching Clinical Experience I 1cr
EDUC 342 Pre-student Teaching Clinical Experience II 1cr
EDUC 442 School Law 1cr
EDUC 461 Student Teaching 6cr
EDUC 471 Student Teaching 6cr

Major: 63

Required Courses: (2)
ECED 117 Family, Community, and School Relationships in a Diverse Society 2cr
ECED 200 Introduction to Early Childhood Education 3cr
ECED 221 Literature for the Young Child and Adolescent 3cr
ECED 250 Language Development 3cr
ECED 280 Maximizing Learning: Engaging All PreK to Grade 4 Learners 3cr
ECED 310 Science, Health, and Safety for All PreK to Grade 4 Learners 3cr
ECED 351 Literacy for the Emergent Reader: PreK-Grade 1 Learners 3cr
ECED 411 Social Studies for All PreK to Grade 4 Learners 3cr
ECED 451 Literacy for the Developing Reader: Grades 2-4 Learners 3cr
ECSP 112 Growth and Development: Typical and Atypical Development 3cr
ECSP 314 Creative Experiences and Play for All PreK to Grade 4 Learners 3cr
ECSP 340 Introduction to Classroom and Behavior Management 3cr
EDEX 440 Professional Seminar: Teacher as Researcher and Advocate for All PreK to Grade 4 Learners 2cr
EDEX 441 Field Experiences in Urban Centers 3cr
FDED 440 Orientation to Teaching in Urban Centers 2cr
FDED 441 Field Experiences in Urban Centers 3cr

Other Requirements: 5

Total Degree Requirements: 134.5

(*) See requirements leading to teacher certification, titled “3-Step Process for Teacher Education,” in the College of Education and Communications section of this catalog.

(1) Students select three of the four sciences.

(2) A 3.0 cumulative GPA is required to register in the Teacher Certification Sequence courses.

Special Education

Completion of the sequence of study in this major leads to Pennsylvania Department of Education special education certifications in preK-8 and 7-12. Students will be prepared to teach persons with intellectual disabilities, autism, developmental disabilities, learning disabilities, brain injuries, emotional/behavioral disorders, physical disabilities, and multiple disabilities. Academic course work and field experiences are integrated within the course of study.

Students entering the program should be aware of the following:
1. Students must complete a fifth year by applying for early admission into to the MEd—Literacy and or Reading Specialist Certification program.
2. Students must meet all reading specialist certification requirements.
3. Upon completion of the reading specialist requirements and passing the Special Education PreK-8 and 7-12 exams and Reading Specialist exam, students can then apply for special education certification.

Bachelor of Science in Education—Special Education (*)

Liberal Studies: As outlined in Liberal Studies section with the following specifications:
Mathematics: MATH 151
Natural Science: Laboratory Science sequence required (SCI 105-107 and
SCI 117 recommended)
Social Science: PSYC 101
Liberal Studies Electives: 3cr, MATH 152 required

College: 24

Preprofessional Education Sequence:
EDEX 103 Special Education Technology 3cr
EDSP 102 Educational Psychology 3cr

Professional Education Sequence:
EDSP 477 Assessment of Student Learning: Design and Interpretation of Educational Measures 3cr
EDUC 242 Pre-student Teaching Clinical Experience I (Early Education) 1cr
EDUC 342 Pre-student Teaching Clinical Experience II (Special Education-Severe) 1cr
EDUC 421 Student Teaching (Special Education-PreK-8) 6cr
EDUC 441 Student Teaching (Special Education 7-12) 6cr
EDUC 442 School Law 1cr

Major: 55

Required Courses:
EDEX 111 Introduction to Exceptional Persons 3cr
EDEX 114 Atypical Development in Infants, Children, and Adolescents 3cr
EDEX 221 Methods of Teaching Mathematics to Secondary Students with Disabilities 2cr
EDEX 222 Methods of Teaching Language Arts to Secondary Students with Disabilities 2cr
EDEX 223 Reading Methods and Strategies for Students with Disabilities 3cr
EDEX 231 Methods of Teaching Content Area Subjects to Persons with Disabilities 3cr
EDEX 321 Methods of Teaching Language Arts to Persons with Disabilities 3cr
EDEX 322 Instruction of English Language Learners with Special Needs 2cr
EDEX 340 Behavior Management in Special Education 3cr
EDEX 415 Preschool Education for Children with Disabilities 3cr
EDEX 425 Methods and Curriculum (Mild-Moderate Disabilities) 3cr
EDEX 425 Methods and Curriculum–Severe Cognitive Disabilities 3cr
EDEX 440 Ethical and Professional Behavior 1cr
EDEX 458 Transition for Youth with Disabilities 3cr
EDEX 460 Family Perspectives on Disability 3cr
EDEX 469 Education of Persons with Emotional Disabilities/Behavioral Disabilities/Learning Disabilities/Traumatic Brain Injury 3cr
EDEX 478 Education of Persons with Intellectual/Developmental Disabilities and Physical/Multiple Disabilities 3cr
MATH 330 Teaching Mathematics in the Elementary School 3cr
SLP 254 Classroom Management of Language Disorders 3cr

Reading Specialist 3

LTCY 600 Foundations of Literacy Instruction (1) 3cr

Total Degree Requirements: 123

(*) See requirements leading to teacher certification, titled “3-Step Process for Teacher Education,” in the College of Education and Communications section of this catalog.
(1) This course satisfies 3cr of the reading specialist requirements.

Reading Specialist Fifth-Year Courses 27

To receive a reading specialist certification, students must complete 27 credits within the master’s program from categories A-C.

A. Literacy
LTCY 600 Foundations of Literacy Instruction 3cr
LTCY 644 Issues and Trends in the Language Arts 3cr
LTCY 701 Assessment and Acceleration 3cr
LTCY 702 Reading and Writing in the Content Areas 3cr
LTCY 705 Organization and Administration of Reading/Writing Programs 3cr
LTCY 770 Practicum and Seminar for Reading Specialist I 3cr
LTCY 771 Practicum and Seminar for Reading Specialist II 3cr

B. Diversity
LTCY 635 Literacy in Inclusive Classrooms 3cr

C. Related Area
LTCY 607 Instruction and Learning with Literature 3cr

Please see the Graduate Catalog at www.iup.edu/graduatestudies/catalog and look under Master’s Degree Programs for specific courses.

Special Education Minor

Completion of the Special Education minor will prepare students to have a better understanding of the social, emotional, and learning characteristics of individuals with mental retardation, autism, developmental disabilities, learning disabilities, brain injuries, emotional and behavioral disorders, physical disabilities, and multiple disabilities.

In addition, students taking this minor will develop a thorough understanding of PL 105-17, Individuals with Disabilities Education Act (IDEA), which addresses the rights of individuals and parents regarding inclusion in the regular classroom, delivery of services in inclusive settings, and transition planning.

The Special Education minor is an 18-credit program with 3 required and 15 elective credits. The required credits are met through enrollment in EDEX 111. This course provides essential information regarding IDEA (PL 105-17) as well as an overview of the field of special education, thus allowing the minor candidate to select a more focused area of concentration.

This minor would be of interest to sociology, psychology, child development and family relations, criminology, and secondary education majors who are interested in interacting or working with individuals with disabilities. To be accepted into the minor, a student must have a minimum 2.5 cumulative GPA.

Minor—Special Education 18

Required Course: 3
EDEX 111 Introduction to Exceptional Persons 3cr

Controlled Electives: Five courses from the following: 15
EDEX 340, 415, 458, 460, 469, 478

Special Education Grades 7-12 for Secondary Education Majors Dual Certification

Students majoring in a secondary education field may complete academic requirements for certification in special education grades 7-12 by completing the following requirements. Students are advised that completion of requirements for a second certification may take up to three additional semesters.

Dual Certification—Special Education Grades 7-12 for Secondary Education Majors 30

EDEX 111 Introduction to Exceptional Persons 3cr
EDEX 221 Methods of Teaching Mathematics to Secondary Students with Disabilities 2cr
EDEX 222 Methods of Teaching Language Arts to Secondary Students with Disabilities 2cr
EDEX 340 Behavior Management in Special Education 3cr
EDEX 435 Methods and Curriculum–Severe Cognitive Disabilities 3cr
EDEX 440 Ethical and Professional Behavior 1cr
EDEX 458 Transition for Youth with Disabilities 3cr
EDEX 469 Education of Persons with Emotional Disabilities/Behavioral Disabilities/Learning Disabilities/Traumatic Brain Injury 3cr

INDIANA UNIVERSITY OF PENNSYLVANIA UNDERGRADUATE CATALOG, 2019-20
Disabilities/Behavioral Disabilities/Learning 3cr
Disabilities/Traumatic Brain Injury 3cr
EDEX 478
Education of Persons with Intellectual/Developmental Disabilities and Physical/Multiple Disabilities 3cr
EDUC 342
Pre-student Teaching Clinical Experience II (1) 1cr
EDUC 421
Student Teaching (2) 6cr

(1) EDUC 342 could be taken in summer. Arrangements could be made to use ESY programs such as IUP, PACE, Sunrise School, Milestones, and/or a number of other programs near and far. In fact, a lot of this program could be easily integrated into the candidate’s major program.

(2) A six-week placement under the supervision of a certified special education teacher. Arrangements for this experience will be made among the student-teaching coordinators of the student’s major, special education, and the Teacher Education office.

Speech-Language Pathology and Audiology

Completion of the sequence of courses in speech-language pathology and audiology serves as a preprofessional program for students planning to become practicing speech-language pathologists or audiologists. Students entering the undergraduate program should be aware of the following:

1. IUP is accredited by the Council on Academic Accreditation of the American Speech-Language-Hearing Association and qualifies a person for the Certificate of Clinical Competence from the American Speech-Language-Hearing Association and Pennsylvania State Licensure.

2. National certification, state licensure, and PDE Educational Specialist Certification as a School Speech-Language Pathologist are available only to holders of the master’s degree in speech-language pathology.

3. Students will need a minimum cumulative GPA greater than 3.5 to qualify for admission to most graduate schools.

4. Upon completion of a master’s degree in speech-language pathology at IUP, students will be prepared to provide services in work settings such as hospitals, community clinics, public school and early intervention programs, and rehabilitation settings.

5. To be eligible to register for 300- and 400-level courses in the major, students must meet the junior standing requirement of a minimum overall cumulative GPA of 3.25 and verification by the academic advisor that the program’s dispositions are met or exceeded. Students must also complete 25 hours of observation in speech-language pathology or audiology (depending upon career objectives) supervised by an IUP faculty member who holds a Certificate of Clinical Competence. These are completed through enrollment in SPLP 310 and 410.

Transfers, changes of major, and post-baccalaureate admissions into the undergraduate Speech-Language Pathology and Audiology program will be approved on a competitive basis. For a prospective student to be considered for admission on those dates, the minimum criteria include a minimum cumulative GPA of 3.0 or greater in all undergraduate course work, passing standardized exam scores, an interview, and an essay. Please contact the Speech-Language Pathology and Audiology program director for more information.

Bachelor of Science—Speech-Language Pathology and Audiology

Liberal Studies: As outlined in Liberal Studies section with the following specifications:

Mathematics: 3cr
Natural Science: BIOL 104 required; any PHYS or CHEM; PHYS 105 or SCI 105 recommended
Social Science: PSYC 101
Liberal Studies Electives: 6cr, PSYC 310, MATH 217, no courses with SLP prefix

Major: 44

Required Courses:

EDUX 111 Introduction to Exceptional Persons 3cr
SPLP 111 Introduction to Communication Disorders 3cr
SPLP 122 Clinical Phonology 3cr
SPLP 222 Introduction to Audiology 3cr

Free Electives: 29-30

EDSP 102, SPLP 312, 420 (2), 422

Total Degree Requirements: 120

(1) Prior to enrollment in SPLP 310, 410, and 420, students must successfully obtain: Act 34 and Act 151 clearances, Act 24 Arrest or Conviction Report, Act 114 FBI Fingerprinting (continuing enrollment in IUP is required for fingerprinting to remain valid), Title IX mandated reporter training, TB Test (must be renewed annually), speech and hearing screening. For SPLP 420, students must also become a national member of NSSLHA and obtain student clinician professional liability coverage.

Audiology Minor

The Audiology minor introduces the student to essential information regarding hearing loss, audiological testing, and clinical knowledge of the profession. In addition, information about deaf culture and basic sign language will be provided. This course of study will enable students to have a better understanding of the needs of persons with hearing loss and the deaf, as it relates to speech and language acquisition, genetics, use of a propriate amplification devices, and the structure and function of the hearing mechanism.

The minor is an 18-credit program. Required credits include the core courses that are essential to understanding basic and advanced audiological concepts, basic concepts of hearing science and acoustics, implications of processing auditory information, and basic communication needs within the deaf and hard-of-hearing populations.

Students must maintain a cumulative GPA of not less than 3.0 to enter and complete the minor. Students must also receive a “C” or better in all courses to complete the minor.

This minor is of interest to students in the following majors: speech-language pathology and audiology, special education, education, criminology, nursing, pre-medical fields, psychology, educational psychology, and safety science

Minor—Audiology 18

Required Courses:

EDHL 114 Introduction to Deaf and Hard-of-Hearing Persons 3cr
EDHL 115 Introduction to American Sign Language 3cr
SPLP 222 Introduction to Audiology 3cr
SPLP 311 Aural Rehabilitation 3cr
SPLP 312 Advanced Audiology and Hearing Disorders 3cr
SPLP 422 Central Auditory Processing Disorders in the Educational Setting 3cr

Elective Courses: 6-7 credits from the following:

BIOL 106, EDHL 215, EDSP 376 (1), PHYS 105, SPLP 111

(1) EDSP 376 has a prequisite of EDSP 102
Disability Services

Completion of this multidisciplinary curriculum in educational, social, and natural sciences prepares graduates to work as professionals serving individuals with disabilities in a wide array of public- and private-sector agencies and service providers, including adult mental health (MH) programs. Students who complete the program will earn a bachelor of science degree and will be prepared for employment as instructional assistants in public or private schools, as therapeutic staff support personnel, or in a wide variety of capacities in MH programs, community-based employment/living programs, early intervention programs, residential treatment programs, preschool/day care programs, and other agency service providers for individuals with disabilities. Disability Services majors must achieve and maintain a 2.75 overall GPA.

Bachelor of Science—Disability Services

Liberal Studies: As outlined in Liberal Studies section with the following specifications: 43-44

Mathematics: 3cr

Social Science: PSYC 101, SOC 151 or 161

Liberal Studies Elective: 3cr, CDFR 224

Major:

Required Courses: 49

CDFR 218 Child Development 3cr
CDFR 310 Childhood Observation and Assessment 3cr
CDFR 315 Introduction to Early Intervention 3cr
DISB 440 Ethical and Professional Behaviors 1cr
DISB 493 Internship/Field Training 12cr
EDEX 111 Introduction to Exceptional Persons 3cr
EDEX 340 Introduction to Behavior Management in Special Education 3cr
EDEX 415 Preschool Education for Children with Disabilities 3cr
EDEX 458 Transition for Youth with Disabilities 3cr
EDEX 460 Family Perspectives on Disability 3cr
EDEX 469 Education of Persons with Emotional/Behavioral Disorders, Learning Disabilities, or Brain Injury 3cr
EDEX 478 Education of Persons with Intellectual/Developmental Disabilities and Physical/Multiple Disabilities 3cr
EDHL 114 Introduction to Deaf and Hard-of-Hearing Persons 3cr
EDHL 115 Introduction to American Sign Language 3cr

Other Requirements: 6

Professional Sequence:
EDEX 103 Special Education Technology or EDSP 102 Educational Psychology 3cr

Free Electives: (1) 21-22

Students may use these 18cr toward study of a minor discipline and/or as free electives.

Total Degree Requirements: 120

(1) It is recommended that students pursue minor studies in one of the following: Child Development and Family Relations (18cr), Educational Psychology (18cr), Psychology (18cr), or Sociology/Disability Services or Human Services (18cr).

Deaf Studies Minor

A minor in Deaf Studies introduces the participant to essential information regarding hearing loss and deaf culture. In addition, basic sign language skills are developed. This course of study enables individuals to have a better understanding of the needs of persons who are deaf and hard-of-hearing and to communicate with individuals within the deaf community at a basic level.

The minor is an 18-credit program with 15 required and 3 elective credits. Required credits include the core courses that are essential to understanding the language and culture of the deaf community. The elective credits allow the minor candidate to select a more focused area of concentration.

Students must maintain a cumulative GPA of not less than 2.5 to enter and complete the minor. Except for the introductory courses, EDHL 114 and 115, only students who have officially declared a deaf studies minor will be able to schedule the designated courses. The grade received in American Sign Language courses must be a “C” or better to complete the minor.

This minor would be of interest to anthropology, criminology, education, nursing, psychology, disability services, and sociology majors and anyone else who is interested in interacting with persons who are deaf or hard-of-hearing.

Minor—Deaf Studies 18

Required Courses: 15

EDHL 114 Introduction to Deaf and Hard-of-Hearing Persons 3cr
EDHL 115 Introduction to American Sign Language 3cr
EDHL 215 Intermediate American Sign Language 3cr
EDHL 308 Supporting Language and Communication for Deaf/Hard-of-Hearing, English Language Learners, and Individuals with Language Disorders 3cr
EDHL 317 Sign Language in Educational Settings 3cr

Controlled Electives: 3 credits from the following: 3

EDEX 111, EDHL 417, SPLP 222

Behavior Analysis Certificate

Provides the student with the specific knowledge and skills necessary to function as a Board Certified Assistant Behavior Analyst (BCaBA). Courses are aligned to the requirements of the Behavior Analyst Certification Board and satisfy one of the three requirements to be eligible to become a BCaBA.

Certificate—Behavior Analysis

The two remaining requirements, supervised field experience and earning a passing score on the BCaBA examination, are not part of this undergraduate certificate.

Required Courses: 13

EDEX 340 Introduction to Behavior Management in Special Education 3cr
EDEX 435 Methods and Curriculum- Severe Cognitive Disabilities 3cr
EDEX 440 Ethical and Professional Behavior 1cr
EDEX 469 Education of Persons with Emotional/Behavioral Disabilities/ Behavioral Disabilities/ Learning Disabilities/Traumatic Brain Injury 3cr
EDEX 476 Foundations of Behavioral Analysis 3cr

Department of Communications Media

Website: www.iup.edu/commmedia

B. Gail Wilson, Chair

The department offers a Bachelor of Science degree program in Communications Media, with three tracks as well as a minor in Communications Media and a minor in Educational Technology. The Communications Media minor is an 18-credit program designed to complement any major. The Educational Technology minor is a 24-credit program designed for students who are completing a teaching degree.

Students majoring in Communications Media may select one of three tracks: Media Marketing, Media Production, or Media Studies.

Media Marketing

The Media Marketing Track encourages students to develop skills in media promotion, communication consulting, media sales, and media management. This track includes courses from the Department of Marketing. These required marketing courses introduce students to broader marketing concepts in skill-based marketing courses.
Media Production

Students who seek a more rigorous production experience will find that in the Media Production Track. In this track, students will take a set of five COMM production courses that will help them to acquire higher-level production skills. Students will learn the foundational skills associated with their chosen production area and learn to use contemporary postproduction software and equipment. This more specialized track will prepare students for employment in various production fields, including video, audio, radio, graphics, photography and games.

Media Studies

The Media Studies Track seeks to broadly educate students in communications media by encouraging them to develop their communication skills, written, oral, and visual. Courses include components to develop critical thinking, collaboration, and research skills. The flexibility of the program allows students to explore a range of courses in media theory, criticism, culture, and current media issues. Beginning level production courses introduce concepts of producing media messages.

With 21 credits of required out of department electives, Communications Media students in the Media Studies and Media Production Tracks are highly encouraged to pursue a minor in another program that complements their degree in Communications Media.

The department faculty offers a wide variety of experience in all areas of Communications Media. With the combination of classroom work and the required internship program, departmental graduates are competitive candidates for positions in various areas. Students graduating from this program have obtained positions in areas such as radio, television, cable television, public relations, advertising media, media relations, and corporate media relations.

Students changing majors from other academic departments within the university are required to be in good academic standing before the transfer will be approved.

Bachelor of Science—Communications Media/Media Studies

Liberal Studies: As outlined in Liberal Studies section with the following specifications:

Mathematics: 3cr
Social Science: PSYC 101

Liberal Studies Electives: 6cr, COSC/IFMG 101, ECON 122, no courses with COMM prefix

Major: 44

Required Courses:
- COMM 101 Communications Media in American Society 3cr
- COMM 150 Aesthetics and Theory of Communications Media 3cr
- COMM 395 Career Planning in Communications Media 1cr
- COMM 475 Senior Portfolio Presentation 1cr
- COMM 493 Internship (summer only) 9cr

Writing-Intensive Course: One writing-intensive COMM course 3cr

Media Production:
- Minimum of two courses from the following: 6cr
  - COMM 207 Online Media Production 3cr
  - COMM 240 Communications Graphics 3cr
  - COMM 249 Basic Audio Recording Techniques 3cr
  - COMM 251 Television Production 3cr
  - COMM 271 Beginning Photography 3cr
  - COMM 306 2-D Digital Game Development 3cr
  - COMM 348 Animation 3cr
  - COMM 349 Radio Production 3cr
  - COMM 350 Advanced Radio Production 3cr
  - COMM 351 Advanced Video Production 3cr
  - COMM 360 Digital Sports Production 3cr
  - COMM 371 Advanced Photography 3cr
  - COMM 374 Documentary Photography 3cr
- COMM 406 3D Game and Simulation Design and Development 3cr
- COMM 407 Television Feature Production 3cr
- COMM 408 Media Field Studies 3cr
- COMM 440 Multimedia Production 3cr
- COMM 446 3D Modeling and Animation for Games and Simulations 3cr
- COMM 449 Advanced Audio Recording Techniques 3cr
- COMM 451 Multimedia News Production 3cr
- COMM 471 Electronic Imaging 3cr

Media Marketing Courses:
- COMM 305 Electronic Media Programming and Sales 3cr
- COMM 335 Communications Consulting and Project Management 3cr
- COMM 401 Promotion for Radio, Television, and Cable Communications 3cr
- COMM 470 Management Practices in Electronic Communications 3cr

Controlled Electives:
- Other COMM elective courses 6cr

Marketing Requirements:
- MKTG 320 Principles of Marketing 3cr
- MKTG 433 Advertising 3cr
- MKTG 439 Internet Marketing 3cr
- MKTG 445 Social Media Marketing 3cr

Other Requirements:
- Additional courses outside Communications Media, advisor approval required.

Free Electives: 8-9

Total Degree Requirements: 120

Bachelor of Science—Communications Media/Media Studies Track

Liberal Studies: As outlined in Liberal Studies section with the following specifications:

Mathematics: 3cr
Social Science: PSYC 101

Liberal Studies Electives: 6cr, COSC/IFMG 101, ECON 122, no courses with COMM prefix

Major: 44

Required Courses: (1)
- COMM 101 Communications Media in American Society 3cr
- COMM 150 Aesthetics and Theory of Communications Media 3cr
- COMM 395 Career Planning in Communications Media 1cr
- COMM 475 Senior Portfolio Presentation 1cr
- COMM 493 Internship (summer only) 9cr

Writing-Intensive Course: One writing-intensive COMM course 3cr

Basic Media Production:
- Minimum of two courses from the following: 6cr
  - COMM 207 Online Media Production 3cr
  - COMM 240 Communications Graphics 3cr
  - COMM 249 Basic Audio Recording Techniques 3cr
  - COMM 251 Television Production 3cr
  - COMM 271 Beginning Photography 3cr
  - COMM 306 2-D Digital Game Development 3cr
  - COMM 349 Radio Production 3cr

Advanced Media Production:
- Minimum of three courses from the following: 9cr
  - COMM 340 Advanced Communication Graphics 3cr
  - COMM 348 Animation 3cr
  - COMM 350 Advanced Radio Production 3cr
  - COMM 351 Advanced Video Production 3cr
  - COMM 360 Digital Sports Production 3cr
  - COMM 371 Advanced Photography 3cr
COMM 374  Documentaty Photography 3cr
COMM 406  3-D Game and Simulation Design and Development 3cr
COMM 407  Television Feature Production 3cr
COMM 408  Media Field Studies 3cr
COMM 440  Multimedia Production 3cr
COMM 446  3-D Modeling and Animation for Games and Simulations 3cr
COMM 449  Advanced Audio Recording Techniques 3cr
COMM 451  Multimedia News Production 3cr
COMM 471  Electronic Imaging 3cr

**Controlled Electives:** 9cr
Other COMM elective courses, NOT including production courses

**Other Requirements:** 21
For courses outside Communications Media, advisor approval required.
A minor is strongly encouraged.

**Free Electives:** 8-9

**Total Degree Requirements:** 120

(1) At least 12 COMM credits must be 300 level or higher.
(2) At least 6cr (two courses) in production must be in the same production area.

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**Bachelor of Science—Communications Media/Media Studies Track**

**Liberal Studies:** As outlined in Liberal Studies section with the following specifications:

- **Mathematics:** 3cr
- **Social Science:** PSYC 101

**Liberal Studies Electives:** 6cr, COSC/IFMG 101, no courses with COMM prefix

**Major:** 44

**Required Courses:** (1)
- COMM 101 Communications Media in American Society 3cr
- COMM 150 Aesthetics and Theory of Communications Media 3cr
- COMM 395 Career Planning in Communications Media 1cr
- COMM 475 Senior Portfolio Presentation 1cr
- COMM 493 Internship (summer only) 9cr

**Writing-Intensive Course:** One writing-intensive COMM course 3cr

**Media Studies:** Minimum of four courses from the following: 12cr
- COMM 205 Making Presentations with Media 3cr
- COMM 206 History and Theory of Making Games 3cr
- COMM 230 Global Media and Communication 3cr
- COMM 235 Electronic Media Programming and Sales 3cr
- COMM 325 Gender in Media 3cr
- COMM 330 Instructional Design for Training and Development 3cr
- COMM 335 Communications Consulting and Project Management 3cr
- COMM 345 Television Criticism 3cr
- COMM 354 Media Law and Policy 3cr
- COMM 375 Mass Media and Behavior 3cr
- COMM 380 The History of African Americans in Film 3cr
- COMM 401 Promotion for Radio, Television, and Cable 3cr
- COMM 414 Music, Media, and Culture 3cr
- COMM 420 Media Portrayal of Crime 3cr
- COMM 445 Applications and Techniques of Motion Pictures 3cr
- COMM 460 Emerging Trends in Communication Technology 3cr
- COMM 470 Management Practices in Electronic Communications 3cr
- COMM 480 Seminar in Communications Media 3cr

**Minimum of two production courses from the following:** 6cr
- COMM 207 Online Media Production 3cr
- COMM 240 Communications Graphics 3cr

**Required Courses:**
- COMM 249 Basic Audio Recording Techniques 3cr
- COMM 251 Television Production 3cr
- COMM 271 Beginning Photography 3cr
- COMM 306 2-D Digital Game Development 3cr
- COMM 348 Animation 3cr
- COMM 349 Radio Production 3cr
- COMM 350 Advanced Radio Production 3cr
- COMM 351 Advanced Video Production 3cr
- COMM 360 Digital Sports Production 3cr
- COMM 371 Advanced Photography 3cr
- COMM 374 Documentary Photography 3cr
- COMM 406 3-D Game and Simulation Design and Development 3cr
- COMM 407 Television Feature Production 3cr
- COMM 408 Media Field Studies 3cr
- COMM 440 Multimedia Production 3cr
- COMM 446 3-D Modeling and Animation for Games and Simulations 3cr
- COMM 449 Advanced Audio Recording Techniques 3cr
- COMM 451 Multimedia News Production 3cr
- COMM 471 Electronic Imaging 3cr

**Controlled Electives:** 6cr
Other COMM elective courses including courses from the above lists not taken as part of those requirements

**Other Requirements:** 21
For courses outside Communications Media, advisor approval required.
A minor is strongly encouraged.

**Free Electives:** 8-9

**Total Degree Requirements:** 120

(1) At least 12 COMM credits must be 300 level or higher.

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**Minor—Communications Media** 18

**Required Courses:**
- COMM 101 Communications Media in American Society 3cr
- COMM XXX Electives in Communication Media 15cr

**Minor—Educational Technology** 24

**Required Courses:**
- BTED/COSC/IFMG 101 Computer Literacy 3cr
- COMM 101 Communications Media in American Society 3cr
- COMM 460 Emerging Trends in Communication Technology 3cr
- COMM XXX Electives in Communications Media 15cr

**Audio Production Certificate**

Prepares students for careers producing, recording, mixing, and mastering audio. This 18-credit certificate requires students to take five 3-credit core courses and an additional 3 credits for electives. Completion of this certificate will help prepare students for positions in many fields including, radio, film and television in which knowledge of audio production techniques and technology is required. Majors from other departments will be able to declare a communications media minor along with receiving the certificate.

**Certificate—Audio Production** 18

**Core Courses:** 15
- COMM 101 Communications Media in American Society 3cr
- COMM 249 Basic Audio Recording Techniques 3cr
- COMM 349 Radio Production 3cr
- COMM 350 Advanced Radio Production 3cr
- COMM 449 Advanced Audio Recording Techniques 3cr

**Elective:** 3
- COMM 281 (1), 305, 354, 401, 403, 408, 414, 451 (1), 480 (1), 481 (1)

(1) As appropriate depending on topic; approval required.
Photography and Digital Imaging Certificate

For students who wish to obtain inclusive training in digital photography, image optimization, and display. This 18-credit program certificate requires students to take five 3-credit core courses and an additional 3 credits of electives. Completion of the certificate will help prepare students for positions in many fields in which knowledge of photography and digital imaging is required. Majors from other departments will be able to declare a communications media minor along with receiving the certificate.

Certificate—Photography and Digital Imaging  18

Core Courses:  15
COMM 101 Communications Media in American Society  3cr
COMM 271 Beginning Photography  3cr
COMM 371 Advanced Photography  3cr
COMM 374 Documentary Photography  3cr
COMM 471 Electronic Imaging  3cr

Electives:  3
COMM 151, 201, 240, 252, 335, 390, 408, 440, 481

Popular Music Studies Certificate

The Certificate in Popular Music Studies introduces students to fundamental concepts associated with the creation and reception of popular music. It is a credential that enables students to demonstrate basic competency with the performance, production, or analysis of popular music, and may be particularly appealing to those studying music, communications media, entrepreneurship, or marketing.

The certificate program is administered jointly by the Department of Music and Department of Communications Media. It requires 10 credits of core courses and an additional 9 credits of electives. While basic performance or songwriting ability is recommended, no audition is required for admission to the program.

Certificate—Popular Music Studies  (1)  19

Core Courses:  10
COMM 249 Basic Audio Recording Techniques  3cr
COMM 414 Music, Media, and Culture  3cr
MUSC 114 Analysis of Popular Music  3cr
MUSC 140 Popular Music Ensemble (2)  1cr

Electives:  9
9 credits from the following:
APMU____ Applied Music (1)  1-2cr
COMM 354 Media Law and Policy  3cr
COMM 449 Advanced Audio Recording Techniques  3cr
MUHI 333 History of Popular Music Since 1945  3cr
MUSC 140 Popular Music Ensemble (2)  1-3cr

(1) Applied music instructors may require certificate participants to demonstrate basic proficiency with voice or a musical instrument. Students may elect up to two semesters of 1cr lessons.
(2) Students must register for MUSC 140 Popular Music Ensemble (1cr) at least once. The course may be repeated up to three times for a total of four credits.

Department of Counseling

Website: www.iup.edu/counseling
Claire J. Dandeneau, Chair

This graduate department offers two master’s degree programs. The 60-credit MA degree program in community counseling is designed to prepare students to work in a variety of settings including mental health centers, drug and alcohol treatment programs, specialized community agencies, vocational education or rehabilitation programs, correctional institutions, health care settings, social services, and business and industry. This program is also offered at the IUP Monroeville Graduate and Professional Center.

The MEd program in school counseling certification is designed to prepare elementary and secondary counselors to qualify for institutional and commonwealth certification. The 60-credit competency-based program includes a series of counseling skills courses to individual and group counseling and a field experience under the supervision of a certified school counselor. Those students already possessing a master’s degree may apply to the Counseling program for “certification only” status. Refer to the Graduate Catalog for further details.

Department of Developmental Studies

Website: www.iup.edu/devstudies
Melvin A. Jenkins, Chair

The Department of Developmental Studies is committed to helping underprepared students prepare, prepared students advance, and advanced students excel. With this motto as its mission, the department provides various academic support services to all IUP students.

The department offers a package of freshman seminar courses designed to prepare first-year students with the skills and knowledge important to college success. These three 1-credit courses count toward graduation and include DVST 150, 160, and 170.

The department offers a precourse experience to all incoming first-year students called CUSP: The Early Entrance Experience. This program starts one week before fall classes and includes the course DVST 150 plus activities, workshops, and seminars to orient students to the higher education experience to IUP in particular, and to the factors in student success.

In addition, the department offers courses that develop learning skills to enhance academic success. Courses in developmental mathematics and reading are offered for institutional credit. Institutional credit counts in determining full-time enrollment status but not in determining credits applicable for degree eligibility at graduation. DVST 110, a 2-credit course that can be used for undergraduate graduation credit, is often linked with another content course.

All students matriculating through the Department of Developmental Studies as department advisees receive a program of freshman-year courses, developmental advisement, and academic support services and are transferred to advisement in their college at the end of a successful freshman year.

The Center for Learning Enhancement

The department provides educational support services in the areas of reading, mathematics, biological and physical sciences, foreign languages, social sciences, study skills, and related areas. These services are provided by both professional and undergraduate paraprofessional staff. Students are encouraged to participate in a broad array of program services including one-to-one and group tutorials, workshops, and Supplemental Instruction sessions provided by a trained staff of undergraduate peer educators. These services focus on historically difficult academic courses and majors.

Act 101 Program

Students identified as eligible for Act 101 support receive the Department of Developmental Studies complete freshman program. The program, created as a result of the Pennsylvania Higher Education Equal Opportunity Act 101 in 1971 by the legislature of the commonwealth, focuses on servicing IUP students to make the ideal of equal educational opportunity a reality for all qualified students.

The department offers two Act 101 programs—one on the main campus and another at the Punxsutawney Regional Campus. The office is located in 202 Pratt Hall. Further information about the Department of Developmental Studies and the Act 101 program can be obtained by calling 724-357-2729 or at the website www.iup.edu/devstudies.

General Studies Associate Degree

The associate of arts degree program with a major in general studies is designed to provide the student with a broad base of knowledge in liberal
studies with a focused concentration in a field of study at IUP. The program is available in a format of either a traditional classroom or online instruction. The required concentration may include the already approved courses of an established minor program or a set of pre-approved courses to satisfy the 18-credit concentration. No more than 30 credits may be transferred into this degree program from other colleges or universities.

Students who may find this degree appropriate are those whose career goals only require an associate of arts degree, who are distance education students, who need a degree credential in route to a bachelor’s degree, or who are unable to complete a bachelor’s degree, but seek a degree that can accurately reflect their accomplishments in college.

**Associate of Arts—General Studies**

**Liberal Studies:** As outlined in the Liberal Studies section with the following specifications:

- **Fine Arts:** 3cr
- **Dimensions of Wellness/ROTC:** 3cr
- **Humanities:** 9cr
- **Learning Skills:** ENGL 101 or higher, MATH 101 or higher 6cr
- **Natural Science:** 6-7cr
- **Social Science:** 6cr (1)
- **Liberal Studies Electives:** 6cr

**Concentration:** Completion of an approved minor or pre-approved set of courses 18

**Free Electives:** 2-3

**Total Degree Requirements:** 60

(1) A 3cr course in Global and Multicultural Awareness must be taken.

**General Studies Bachelors Degree**

The bachelor of arts degree program in general studies is designed for adult learners with prior college experience but who lack a four-year degree. Under faculty advisement, the student will develop an individualized plan of study that does not duplicate any existing IUP major. The student’s plan of study must be based on a specific theme that incorporates basic, applied, and professional course work within a theoretical framework. At the time of application for degree candidacy or transfer from another institution, a faculty member will be assigned to assist with the plan of study before acceptance.

**Bachelor of Arts—General Studies**

**Liberal Studies:** As outlined in Liberal Studies section 43

**College Concentration** (“Theme”):

- Complete all requirements for a recognized minor or a concentration approved by an advisor, plus additional courses offered within the same academic college (1). No less than 15 of these credits should be 300-level or above.

**Special Interest Area** (“Cognate Area”):

- With approval of an advisor, the student will select additional courses that focus on a particular need, interest, or specialty that complements the college concentration.

**Free Electives:** 35

**Total Degree Requirements:** (2, 3) 120

(1) An advisor may provide pre-approval for course work outside of the college if it’s closely related to the concentration. An example may be an HOSP course in an EC0BIT concentration or an IFMG course in a NSM college concentration.

(2) A minimum of 42 credits of advanced course work is required for graduation in the program.

(3) Individually planned themes may not duplicate any existing degree programs that are otherwise available at IUP, nor may they be used to circumvent specific requirements within an existing major.
cation in business, computer, and information technology for grades K-12.

The Business Education program is dedicated to preparing teachers who will be qualified and certified to instruct students to live and work in a business environment.

The program is intended for those interested in teaching in public elementary, junior/middle, and senior high schools, vocational-technical schools, private business schools, or industry. Students have a choice of the following certification areas: business, computer, and information technology, or marketing education.

Admission to this program requires entering students to meet the guidelines for admission to the College of Education and Communications. Additionally, students must achieve a 3.0 GPA to apply for Step 1 of the Teacher Education process to enroll in major courses, to student teach, and to be recommended for certification. Students must meet the requirements leading to teacher certification as outlined in this catalog.

Before graduation, each business education student must document completion of 500 hours of business work-related experience. This experience can be acquired during summer vacations and in offices on the campus during the regular school term. Previous documented experience may also be counted.

**Bachelor of Science in Education—Business Education (*) (1)**

**Liberal Studies:** As outlined in Liberal Studies section with the following specifications:
- **Mathematics:** MATH 115
- **Natural Science:** Option I recommended
- **Social Science:** ECON 121, PSYC 101
- **Liberal Studies Electives:** 6cr, ECON 122, MATH 214, no courses with BTED prefix

**College: Professional Education Sequence:**
- BTED 411 Methods in Business and Information Technology I 3cr
- BTED 412 Methods in Business and Information Technology II 3cr
- EDEX 301 Education of Students with Disabilities in Inclusive Secondary Settings 2cr
- EDEX 323 Instruction of English Language Learners with Special Needs 2cr
- EDSP 102 Educational Psychology 3cr
- EDSP 477 Assessment of Student Learning: Design and Interpretation of Educational Measures 3cr
- EDUC 242 Pre-student Teaching Clinical Experience I 1cr
- EDUC 342 Pre-student Teaching Clinical Experience II 1cr
- EDUC 441 Student Teaching 12cr
- EDUC 442 School Law 1cr

**Major:**
- 42 cr

**Required Courses:**

**Business Administration Core:**
- ACCT 201 Accounting Principles I 3cr
- ACCT 202 Accounting Principles II 3cr
- BCOM 321 Business and Interpersonal Communications 3cr
- BLAW 235 Legal Environment of Business 3cr
- FIN 310 Fundamentals of Finance 3cr
- IFMG 300 Information Systems: Theory and Practice 3cr
- MGMT 310 Principles of Management 3cr
- MKTG 320 Principles of Marketing 3cr
- QBUS 215 Business Statistics 3cr

**Business, Computer, and Information Technology Certification:**
- BTED/COSC/IFMG 101 Computer Literacy 3cr
- BTED 401 Web Design 3cr
- BTED 470 Technology Applications for Education 3cr
- BTST 383 Microcomputer Software Solutions 3cr
- MGMT 105 Introduction to Business 3cr

**Total Degree Requirements:**
- 120 cr

(*) See requirements leading to teacher certification, titled “Admission to Teacher Education,” in the College of Education and Communications section of this catalog.
(1) Students can transfer credit from another regionally accredited institution.
(2) See advisory paragraph “Timely Completion of Degree Requirements” in the section on Requirements for Graduation.

**Early Childhood Education/Special Education**

This Early Childhood Education/Special Education (ECSP) program is designed to assist students in becoming highly qualified, competent, and effective teachers of all learners in grades preK through 4. The program has an emphasis on best practices in both early childhood education and special education. Students in this program will meet the academic requirements for Pennsylvania certification in preK to grade 4, as well as special education preK to grade 8.

This program, combining course work in both early childhood education and special education with extensive field experiences, prepares students to be professional educators who are well qualified to utilize appropriate techniques and strategies to expand all children’s cognitive, social, emotional, and physical development. Field experiences will take place in a variety of settings encompassing diverse learning needs as well as learners in birth to grade 3 classrooms, preschool classrooms, K-1 classrooms, and classrooms in grades 2-4.

Admission to this program requires entering students to meet the guidelines for admission to the College of Education and Communications. Additionally, students must achieve a 3.0 GPA to apply for Step 1 of the Teacher Education process to enroll in major courses, to student teach, and to be recommended for certification. Students must meet the requirements leading to teacher certification as outlined in this catalog.

The Urban Track, within the ECSP program offered by the departments of Professional Studies in Education and Communication Disorders, Special Education, and Disability Services, prepares students for teaching in urban school districts, especially in low-income communities with high minority enrollments where the need for high-quality teachers is great. Course work and field experiences emphasize the historical, economic, political, and socioeconomic contexts of urban schools and seek to develop within future teachers the skills, knowledge base, and sensitivities for working with students whose backgrounds and life experiences often differ in significant ways from their own.

**Early Childhood Education**

This program, which emphasizes early childhood education and literacy, is designed to assist undergraduate students in becoming highly competent and effective teachers of children in PreK through Grade 4. As undergraduates, students in this program meet the academic requirements for certification in Early Childhood Education and earn a bachelor of science in education degree. Students enrolled in this program have the opportunity to apply for Early Admission to the School of Graduate Studies and Research and begin taking graduate courses that apply toward the MEd—Literacy program.

Upon successful completion of the required graduate course work, candidates become certified as Reading Specialists in PreK through Grade 12 and earn a master of education degree with a major in Literacy. This program prepares students to become professional educators who are well-qualified to utilize appropriate techniques and strategies to expand children’s cognitive, language, social, emotional, and physical development.

During the semester in which they surpass 90 credits, students follow the School of Graduate Studies and Research Early Admission Policy and apply for early admittance to the MEd—Literacy/Reading Specialist program at IUP. A minimum 3.25 GPA is required to apply for early admittance to the graduate program. Once accepted for early admission to this program,
students begin taking graduate courses in Literacy to work toward earning Reading Specialist Certification and a master of education degree with a major in Literacy. Acceptance into the graduate program is contingent upon the student maintaining and graduating with a 3.0 minimum GPA.

Students who are accepted for early admission into the MEd–Literacy program take the following courses as undergraduates, as long as they continue to have at least 90 credits and a minimum 3.0 GPA: LTCY 635 Literacy in Inclusive Classrooms (in place of EDEX 323); LTCY 644 Issues and Trends in the Language Arts (in place of ECED 425); and LTCY 701 Assessment and Acceleration (in place of CDFR 310). A minimum 3.0 GPA is required to apply for teacher certification, to take major courses in the department, student teach, graduate with the BSed degree, and be accepted into the MEd—Literacy program.

**Middle-Level Education Grades 4-8 Program**

The Middle-Level Education program prepares undergraduate students to become highly qualified, effective teachers in upper elementary grades 4-6 and in middle schools in grades 7-8. The content and methods courses in this program focus on the developmental and learning characteristics of students in this age group. Pedagogy courses present research-based strategies for engaging students in mathematics, science, social studies, and language arts content. Each student focuses on one of these content areas for building a solid, content-rich background to become certified as a middle-level educator in grades 4-8. The English/Language Arts Specialization is designed to prepare preservice teachers to meet the demands of teaching all academic subjects at the middle level in grades 4-8 with a specialization in English/language arts education. The Social Studies Specialization prepares preservice teachers to meet the demands of teaching all academic subjects at the middle level in grades 4-8 with a social studies focus. The Science Specialization prepares preservice teachers to meet the demands of teaching all academic subjects at the middle level in grades 4-8 with a science focus. The Mathematics Specialization prepares preservice teachers to meet the demands of teaching all academic subjects at the middle level in grades 4-8 with a mathematics focus.

**Graduate Programs**

Programs leading to the MA, MEd, and DEd degrees are described in the *Graduate Catalog*. Internships and assistantships are available.

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**Bachelor of Science in Education—Early Childhood Education/Special Education (*)**

**Liberal Studies:** As outlined in Liberal Studies section with the following specifications:

- **Humanities:** HIST 196
- **Mathematics:** MATH 151
- **Natural Science:** SCI 101, 102, 103, 104 (3 of 4 required)
- **Social Science:** GEOG 101, 102, or 104, PSYC 101
- **Liberal Studies Elective:** 3cr, MATH 152

**College:** 25

**Preprofessional Education Sequence:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</tr>
</thead>
<tbody>
<tr>
<td>ACE 103</td>
<td>Digital Instructional Technology or EDEX 103</td>
<td>3cr</td>
</tr>
<tr>
<td>EDSP 102</td>
<td>Educational Psychology</td>
<td>3cr</td>
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**Professional Education Sequence:**

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<tr>
<td>EDSP 477</td>
<td>Assessment of Student Learning: Design and Interpretation of Educational Measures</td>
<td>3cr</td>
</tr>
<tr>
<td>EDUC 242</td>
<td>Pre-student Teaching Clinical Experience I</td>
<td>1cr</td>
</tr>
<tr>
<td>EDUC 342</td>
<td>Pre-student Teaching Clinical Experience II (early childhood)</td>
<td>1cr</td>
</tr>
<tr>
<td>EDUC 342</td>
<td>Pre-student Teaching Clinical Experience II (special education)</td>
<td>1cr</td>
</tr>
<tr>
<td>EDUC 442</td>
<td>School Law</td>
<td>1cr</td>
</tr>
<tr>
<td>EDUC 461</td>
<td>Student Teaching</td>
<td>6cr</td>
</tr>
<tr>
<td>EDUC 471</td>
<td>Student Teaching</td>
<td>6cr</td>
</tr>
</tbody>
</table>

**Major:** 61

Total Degree Requirements: 129.5

(*) See requirements leading to teacher certification, titled “3-Step Process for Teacher Education,” in the College of Education and Communications section of this catalog.

(1) A 3.0 cumulative GPA is required to register in the Teacher Certification Sequence courses.

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**Bachelor of Science in Education—Early Childhood Education/Special Education Urban Track (*)**

**Liberal Studies:** As outlined in Liberal Studies section with the following specifications:

- **Humanities:** HIST 196
- **Mathematics:** MATH 151
- **Natural Science:** SCI 101, 102, 103, 104 (3 of 4 required) (1)
- **Social Science:** GEOG 101, 102, or 104, PSYC 101
- **Liberal Studies Elective:** 3cr, MATH 152

**College:** 23

**Preprofessional Education Sequence:**

<table>
<thead>
<tr>
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<tr>
<td>ACE 103 or EDEX 103</td>
<td>Digital Instructional Technology</td>
<td>3cr</td>
</tr>
<tr>
<td>EDSP 102</td>
<td>Educational Psychology</td>
<td>3cr</td>
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**Professional Education Sequence:**

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<thead>
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<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>EDSP 477</td>
<td>Assessment of Student Learning: Design and Interpretation of Educational Measures</td>
<td>3cr</td>
</tr>
<tr>
<td>EDUC 242</td>
<td>Pre-student Teaching Clinical Experience I</td>
<td>1cr</td>
</tr>
<tr>
<td>EDUC 342</td>
<td>Pre-student Teaching Clinical Experience II</td>
<td>1cr</td>
</tr>
<tr>
<td>EDUC 442</td>
<td>School Law</td>
<td>1cr</td>
</tr>
<tr>
<td>EDUC 461</td>
<td>Student Teaching</td>
<td>6cr</td>
</tr>
<tr>
<td>EDUC 471</td>
<td>Student Teaching</td>
<td>6cr</td>
</tr>
</tbody>
</table>
A 3.0 cumulative GPA is required to register in the Teacher Certification section of this catalog. For Teacher Education, in the College of Education and Communications section of this catalog.

Students who are entering the MEd—Literacy program will take 12 credits of student teaching. Students who are admitted early to the MEd—Literacy program will take 9 credits of student teaching and LTCY 701 for a total of 12 credits.

Students who are seeking a BSEd degree only (e.g., not early admitted to the MEd—Literacy program) will take 12 credits of student teaching.

In the semester in which students earn 90+ credits, they may apply to become graduate students at IUP upon degree completion with a minimum 3.0 GPA, and fulfillment of criteria outlined in IUP’s Early Admission to Graduate Program Policy.

Students must have a grade of “C” or better in PSYC 101 and ECED 112 to register for this course.

Students who earn 90+ credits, they may apply to the School of Graduate Studies and Research for Early Admittance to the MEd—Literacy/Reading Specialist Program. Students must have a minimum 3.25 GPA to apply. Students must follow the Early Admission to Graduate Program Policy. Students who are accepted will automatically become graduate students at IUP upon degree completion with a minimum 3.0 GPA, and fulfillment of criteria outlined in IUP’s Early Admission to Graduate Program Policy.

Students must have a grade of “C” or better in PSYC 101 and CDFR 218 or a grade of “C” or better in PSYC 101 and ECED 112 to register for this course.

Students who are accepted for early admission to the MEd—Literacy program take the graduate course outlined in the program’s catalog description rather than the undergraduate course listed.

Bachelor of Science in Education—Early Childhood Education/Master of Education—Literacy (*)

Liberal Studies: As outlined in Liberal Studies section with the following specifications:
Humanities: HIST 196
Mathematics: MATH 151
Natural Science: SCI 101, 102, 103, 104 (3 of 4 required)
Social Science: GEOG 101, 102, or 104; PSYC 101
Liberal Studies Elective: 3 cr, MATH 152

College: 21-24
Preprofessional Education Sequence:
ACE 103 Digital Instructional Technology 3 cr
EDSP 102 Educational Psychology 3 cr
Professional Education Sequence:
EDSP 477 Assessment of Student Learning: Design and Interpretation of Educational Measures 3 cr

Bachelor of Science in Education—Middle-Level Program/English/Language Arts Specialization (*)

Liberal Studies: As outlined in Liberal Studies section with the following specifications:
Humanities: HIST 196, ENGL 122
Mathematics: MATH 151
Natural Science: BIOL 103 or 104 or 106, SCI 105  
Social Science: ECON 101 or 121; GEOG 101, 102, or 104; PLSC 101 or 111  
Liberal Studies Elective: 3cr, MATH 152

College:  
Preprofessional Education Sequence:  
ACE 103 Digital Instructional Technology 3cr  
EDSP 102 Educational Psychology 3cr  
Professional Education Sequence:  
EDEX 301 Education of Students with Disabilities in Inclusive Secondary Settings 2cr  
EDSP 477 Assessment of Student Learning: Design and Interpretation of Educational Measures 3cr  
EDUC 242 Pre-student Teaching I 1cr  
EDUC 342 Pre-student Teaching II 1cr  
EDUC 421 Student Teaching (non-English/language arts setting) 1er  
EDUC 440 Professional Seminar: Teachers as Leader and Researcher Grades 4-8 2cr  
EDUC 441 Student Teaching (English/language arts setting) 5cr  
EDUC 442 School Law 1cr  
EDUC 499 Multicultural/Multiethnic Education 2cr  

Major:  
Required Middle-Level Courses:  
GEOS 101 The Dynamic Earth (2) 3cr  
GEOS 102 The Dynamic Earth Lab 1cr  
MATH 317 Probability and Statistics for Elementary/Middle-Level Teachers 3cr  
MATH 413 Methods of Teaching Mathematics at the Middle Level 3cr  
MIDL 221 Literature for Middle Level 3cr  
MIDL 222 Reading Instruction and Assessment in Grades 4-8 3cr  
MIDL 310 Instructional Theory and Planning for the Middle Level 3cr  
MIDL 311 Social Studies Instruction and Assessment in Grades 4-8 3cr  
MIDL 312 Science Instruction and Assessment in Grades 4-8 3cr  
MIDL 315 Classroom Management and Adolescent Development 3cr  
MIDL 425 Methods of Teaching Language Arts in Grades 4-8 3cr  

Mathematics Distribution Requirements:  
MATH 151 Elements of Algebra 3cr  
MATH 317 Probability and Statistics for Elementary/Middle-Level Teachers 3cr  
MATH 413 Methods of Teaching Mathematics at the Middle Level 3cr  
MATH 420 Patterns and Functions for Elementary/Middle-Level Teachers 3cr  

Total Degree Requirements: 123  
(*) See requirements leading to teacher certification, titled “3-Step Process for Teacher Education,” in the College of Education and Communications section of this catalog.  
(1) The course meets the PDE requirement of 4cr in geoscience for Middle-Level Education Grades 4-8 certification.  
(2) A 3.0 cumulative GPA is required to register for the Teacher Certification Sequence courses.  

Bachelor of Science in Education—Middle-Level Education 4-8/Mathematics Specialization (*)  
Liberal Studies: As outlined in Liberal Studies section with the following specifications:  
Humanities-History: HIST 196  
Mathematics: MATH 151  
Natural Science: BIOL 103 or 104 or 106, SCI 105  
Social Science: GEOG 101, 102, or 104, ECON 101 or 121,
Preprofessional Education Sequence:

ACE 103 Digital Instructional Technology 3cr
EDSP 102 Educational Psychology 3cr

Professional Education Sequence:

EDEX 301 Education of Students with Disabilities in Inclusive Secondary Settings 2cr
EDPS 477 Assessment of Student Learning: Design and Interpretation of Educational Measures 3cr
EDUC 242 Pre-student Teaching Clinical Experience I 1cr
EDUC 342 Pre-student Teaching Clinical Experience II 1cr
EDUC 421 Student Teaching (non-science setting) 5cr
EDUC 440 Professional Seminar: Teacher as Leader and Researcher Grades 4-8 2cr
EDUC 441 Student Teaching (science setting) 5cr
EDUC 442 School Law 1cr
EDUC 499 Multicultural/Multiethnic Education 2cr

Major:

Required Middle-Level Courses:

GEOS 101 The Dynamic Earth 3cr
GEOS 102 The Dynamic Earth Lab 1cr
MATH 317 Probability and Statistics for Elementary/Middle-Level Teachers 3cr
MATH 413 Methods of Teaching Mathematics at the Middle-Level Teachers 3cr
MIDL 221 Literature for Middle Level 3cr
MIDL 222 Reading Instruction and Assessment in Grades 4-8 3cr
MIDL 310 Instructional Theory and Planning for the Middle Level 3cr
MIDL 311 Social Studies Instruction and Assessment in Grades 4-8 3cr
MIDL 312 Science Instruction and Assessment in Grades 4-8 3cr
MIDL 315 Classroom Management and Adolescent Development 3cr
MIDL 425 Methods of Teaching Language Arts in Grades 4-8 3cr

Science Distribution Requirements:

BIOL 113, 114, 115, or 119 3cr
CHEM 101 College Chemistry I 4cr
CHEM 102 College Chemistry II 4cr
GEOS 150 Geology of National Parks or The Age of Dinosaurs 3cr
PHYS 151 Medical Physics Lecture 3cr
PHYS 161 Medical Physics Lab 1cr

Total Degree Requirements: 121

(*) See requirements leading to teacher certification, titled “3-Step Process for Teacher Education,” in the College of Education and Communications section of this catalog.

Urban Education Certificate

The 15-18 credit certificate in urban education prepares education majors for teaching in urban school districts, especially in low-income communities with high-minority enrollments, where the need for high-quality teachers is great. Coursework and field experiences emphasize the historical, economic, political, and socioeconomic contexts of urban schools and seek to develop within future teachers the skills, knowledge base, and dispositions for working with students whose backgrounds and life experiences may differ from their own.

Certificate—Urban Education (1, 2, 3) 15-18
EDUC 342 Pre-Student Teaching Clinical Experience I (1) 1cr
EDUC 441 or 421 and 441 Student Teaching 9-12cr
FDED 440 Orientation to Teaching in Urban Centers 2cr
FDED 441 Field Experience in Urban Education (2) 3cr

(1) Field experience portion of this course must be completed in an urban setting.

(2) This course may replace EDUC 242 in some education programs. Others may substitute this for the field experience portion of EDUC...
(3) Student teaching must be completed in an urban setting. The number of student teaching credits and the course numbers vary in accordance to the requirements of the major.

**Department of Student Affairs in Higher Education**

**Website:** [www.iup.edu/sahe](http://www.iup.edu/sahe)

**John Wesley Lowery, Chair**

The department offers a master of arts degree in student affairs in higher education. Students in this program prepare to be professional practitioners in two- and four-year colleges and universities in a variety of administrative areas, i.e., admissions, housing and residential life, student development programs, student activities and organizations, Greek affairs, registration, financial aid, career planning and development, minority affairs, health services, athletics, advising and testing, international student services, and counseling programs. Please refer to the *Graduate Catalog* for further details.
The College of Fine Arts
Curtis A. Scheib, Dean
David A. Ferguson, Assistant Dean
Website: www.iup.edu/finearts

The College of Fine Arts has professional degree programs in art, music, theatre and dance, and interdisciplinary fine arts and awards the bachelor of arts and the bachelor of fine arts degrees. Programs leading to certification to teach art and music are offered in cooperation with the College of Education and Communications. This partnership leads to the bachelor of science in education degree. The college also offers minors in art, music, theatre, and dance.

With one of the largest arts programs in the commonwealth, IUP’s College of Fine Arts offers dedicated facilities for each department, augmented by a 1,600-seat auditorium, two theaters, three art galleries, a university museum, a recital hall, computer laboratories, and a state-of-the-art dance studio. In fall 2005, a large, renovated teaching location for sculpture and clay opened for art students, and in spring 2006, a newly renovated and beautifully enlarged music building opened for music students and faculty. The music facility is one of the best university music teaching facilities in Pennsylvania, while the new location for sculpture and clay offers large open space, providing students the opportunity to increase their undergraduate art experience. The college sponsors 200 to 300 arts events annually, and its students, who currently enjoy the strongest academic profile of any of the university’s colleges, have opportunities to develop their talents locally, regionally, and nationally. The college has an active international program for student exchange with a long-established, field-based program.

There are no additional college requirements for graduation beyond the university and departmental requirements listed in other sections of this catalog. Students in teaching certification programs in art and music also need to be aware of commonwealth and IUP requirements that may be found through the College of Education and Communications.

Mission Statement
The mission of the College of Fine Arts at IUP is to provide excellent programs of study for all of its majors, balancing high professional standards with rigorous and current educational practice, and to provide course work and programs of an equally high standard in service to majors in other departments that may require arts classes and, as part of the university’s general studies mandate, to the entire university student body.

The college takes as its special mission the presentation of arts events including plays, concerts, exhibitions, and recitals, featuring the work of students and faculty as well as the work of visiting artists professionals, as a gift of enrichment and as a celebration of the human spirit for the university, the community, and the region.

Finally, the college takes as its mandate and its privilege the inclusion in its presentations, studios, and classrooms the works, thoughts, and performances of a culturally and ethnically diverse world of art.

College Majors

- Art (History or Studio Track)—BA
- Art Education—BSEd
- Art Studio—BFA
- Interdisciplinary Fine Arts (Dance Arts Track)—BA
- Music—BA
- Music Education—BSEd
- Music Performance—BFA
- Theatre (Musical Theatre Track available)—BA

College Minors

- Art History
- Art Studio
- Dance
- Entrepreneurship for Fine Arts
- Music
- Theatre

Interdisciplinary Programs, Minors and Certificates

The Interdisciplinary degree programs, minors, and certificates are multidisciplinary and are not specific to one university college. Requirements for each of the interdisciplinary offerings appear in the Academic Affairs section.

Degree Programs: Public Health (Available Tracks: Behavioral and Mental Health, Environmental and Occupational Health, Epidemiology and Biostatistics, Global and Rural Communities)

Minors: Child and Adult Advocacy Studies, Global Health, Pre-Law, Professional Teamwork and Leadership, Sustainability Studies

Certificates: Child Adult and Advocacy Studies, Living Learning (Available Tracks: Global Scholarship, Scientific Communication), Shale, Gas, and Energy

Interdisciplinary Fine Arts

The interdisciplinary Fine Arts major is available for students desiring to combine course work within the departments of Art, Music, and Theatre and Dance and selected courses within other colleges. Students must enter into a college department through an audition. Currently the only Interdisciplinary Fine Arts track available is Dance Arts.

The Interdisciplinary Fine Arts/Dance Arts Track is coordinated by the Director of Dance in the Department of Theatre, Dance and Performance. It focuses on the art of dance by intergrating the studio practice and classroom study of dance with a secondary focus on theatre, music, art, and/or specified related studies. Students can be admitted to this track after completion of a dance audition and interview. This track is designed to give each major a well-advised, customized education in preparation for one of the many possible career outcomes within, or related to, the dance discipline.

Bachelor of Arts—Interdisciplinary Fine Arts/Dance Arts Track

Liberal Studies: As outlined in Liberal Studies section with the following specifications:

Fine Arts: MUHI 101

Liberal Studies Electives: 6cr, no courses with FIAR prefix

Required Courses: 42cr

Dance: 9cr
- DANC 102 Introduction to Dance 3cr
- DANC 351 Choreography 3cr
- DANC 355 Dance Production: Administration to Creation 3cr

Dance Technique: (1) 21cr
- DANC 150 Fundamentals of Dance 3cr
- DANC 250 Beginning Modern Dance or 485 3cr
- DANC 260 Beginning Jazz Dance or 485 3cr
- DANC 270 Beginning Ballet and Tap Dance or 485 3cr
- DANC 280 Beginning Ballet or 485 3cr
- DANC 290 Ethnic Dance 3cr
- THTR 486 Practicum in Production (2) 3cr

Theatre: One course from the following:
- THTR 116 Fundamentals of Theatrical Design 3cr
- THTR 122 Costume Workshop 3cr
- THTR 221 Basic Stage Lighting 3cr
- THTR 223 Makeup for the Stage 3cr

Ensemble/Production/Exhibition Requirements: 2-3cr
THTR 486 Practicum in Production: Senior Project 2-3cr

Controlled Electives: (as advised) 6-7cr


Free Electives: 31-32 cr

Total Degree Requirements: 120 cr

(1) Placement for technique level requirements will be determined by the Dance faculty based on student’s previous training and/or current technique level (DANC 250, 260, 270, 280, 290, and the corresponding 486 studio level courses).

(2) Students are required to have 3cr of practicum for dance performance assignments and a 2-3cr senior project assignment. Students may select to take additional practicum assignments within their advised electives.

Minor in Entrepreneurship for Fine Arts

This minor for nonbusiness majors programs assumes no prior knowledge of business. Fine arts students are often involved in starting and running their own business, developing and starting performing groups, and developing and running nonprofit community theatres. Students will develop the skills necessary to evaluate opportunities within their industry. They will learn to 1) analyze their competition, 2) develop marketing and financial plans, 3) explain intellectual property rights, 4) negotiate contracts, and 5) write a business plan that could be used to obtain financing from banks, investors, or other sources of funding. These skills are all essential for the creation and development of new ventures. This is a joint effort of four departments and represents an 18-credit minor for fine arts majors. The program is designed to give nonbusiness majors a general background in starting and running a small business.

Minor—Entrepreneurship for Fine Arts 18 cr

ACCT 200 Foundations of Accounting 3cr
ECON 122 Principles of Microeconomics 3cr
FIAR 401 Creativity and Innovation in the Arts 3cr
MGMT 275 Introduction to Entrepreneurship 3cr
MGMT 450 Case Studies in Arts Management 3cr
MKTG 320 Principles of Marketing 3cr

Department of Art and Design

Website: www.iup.edu/art

Nathan Heuer, Chair

The Department of Art and Design provides a sequence of foundation and advanced-level courses directed toward the development of the student’s creative and expressive abilities. Degree programs offered are the bachelor of fine arts degree program in studio, bachelor of arts degree program in art/studio, bachelor of arts degree program in art/history, and bachelor of science in education program in art education. Minors in the department include art studio and art/history.

Students pursuing studio or art education degrees are initially admitted into the department through the Entrance Portfolio Review. Art history majors are not required to submit a portfolio.

The bachelor of fine arts degree program in studio prepares students for careers as professional visual artists, graphic designers, and creative practitioners and is a platform from which to go on to study for the master of arts and the master of fine arts degrees. The BFA degree program offers two tracks: Graphic Design and Art Studio. Students pursuing the Graphic Design Track will study a broad range of topics including web design, publication design, interactive design, animation, and corporate identity. Faculty mentors assist Graphic Design Track students with the development of a professional portfolio. Students pursuing the Art Studio Track will elect a concentration in one of the department’s studio areas including drawing, painting, ceramics, fibers, jewelry and metals, sculpture, and wood. The BFA degree enables students to pursue substantial instruction in their area of concentration. The BFA major must successfully complete the BFA Sophomore Review where studio faculty members assess student progress within the program. During the final semester of their studies, BFA students publicly present their art in a culminating bachelor of fine arts exhibition. The bachelor of arts degree program in art studio offers students a broad range of advanced studio options. This degree option should be chosen by the student who seeks a generalized art studio program and provides opportunities for achieving double majors and minors in and outside the Department of Art and Design. The BA major must successfully complete the Sophomore Review where studio faculty members assess student progress within the program.

The mission of the bachelor of arts degree program in art/history is to provide majors with a solid foundation in the history of art, from ancient through modern times. The degree prepares students for graduate study leading to careers in museums, galleries, fine art libraries, visual resources, teaching, and research. Specific goals, objectives, and competencies related to this degree include the acquisition and demonstration of critical thinking, research, and writing skills; knowledge of terminology, methodology, and competency with various approaches to art historical inquiry; and the ability to conduct art history research through independent investigations.

The bachelor of science in education degree program in art education is a professional degree program leading to certification to teach K-12 art in the Commonwealth of Pennsylvania. The program reflects contemporary theory and practice in art studio, art history, criticism, aesthetics, visual culture, and pedagogy. The program complies with all Pennsylvania standards needed for certification to teach art in the commonwealth.

All art majors are obligated to fulfill the university requirement for Liberal Studies course work. Art education majors must achieve and maintain a 3.0 cumulative GPA. Students enrolled in the Bachelor of Fine Arts—Studio program must achieve a 2.5 cumulative GPA and earn a grade of “C” or better in all ART and ARHI courses to graduate.

The Art Studio minor is available to majors within the department whose major area of study is art education or art history; this provides further exploration in the various studio disciplines. Additionally, the Art Studio minor provides majors from other disciplines the opportunity to experience the visual arts in greater depth.

The mission of the Art History minor is to provide students with the necessary skills to critically assess the origins and changing dynamics of the visual arts. By its very nature, art history is multidisciplinary and not only develops visual literacy and tools for critical thinking, but also introduces students to the sociocultural contexts in which artworks are produced, providing students with the opportunities for understanding cultural diversity and lifelong learning.

The College of Fine Arts and the Department of Art and Design have established an exchange program with the National Art Academies of Slovenia and Croatia. Qualified and highly skilled juniors and seniors may participate in the exchange by application to the Department of Art and Design exchange coordinator and with approval of their major studio professor, the Department of Art and Design chair, and the College of Fine Arts exchange coordinator.

For detailed information regarding application to one of the degree programs and scheduling a portfolio review, please contact the department office at 724-357-2530 or by e-mail through the website www.iup.edu/art.

Bachelor of Arts—Art/History Track

Liberal Studies: As outlined in Liberal Studies section with the following specifications:

Mathematics: 3cr

Liberal Studies Electives: 6cr, no courses with ARHI prefix

Major:

Foundation Required: 18 cr

ARHI 205 Ancient to Medieval Art 3cr
ARHI 207 Renaissance through Modern Art 3cr
ARHI 224 Introduction to Asian Art 3cr
ARHI 413 Senior Seminar 3cr

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ART 112  Fundamentals of Drawing  3cr
ART 114  Color and Two-Dimensional Design  3cr

Controlled Electives: Choose nine courses from the following:  27
Up to 6cr (two courses) of Art Studio, prefix ART
ART 100, 222, 300, 321, 407, 408, 409, 410, 412, 416, 417, 418, 423, 424, 425, 493

Foreign Language Required:  0-12
Foreign Language Intermediate Level (1)

Free Electives:  16-29

Total Degree Requirements:  120

(1) Intermediate-level foreign language may be included in Liberal Studies electives.

Bachelor of Arts—Art/Studio

Liberal Studies: As outlined in Liberal Studies section with the following specifications:  43-44
Fine Arts: ARHI 205
Mathematics: 3cr
Liberal Studies Elective: 3cr, ARHI 207, no courses with ART prefix

Major:

Foundation Required:  12
ART 111  Figure Drawing  3cr
ART 112  Fundamentals of Drawing  3cr
ART 113  Three-Dimensional Design  3cr
ART 114  Color and Two-Dimensional Design  3cr

Beginning Studio Electives: Four of the following nine courses:  12
ART 211, 213, 214, 215, 216, 217, 218, 219, 281
(ART 281 may be used only once)

Art History Required:  6
ARHI 100  Arts of the 20th Century  3cr
Controlled ARHI Elective: One course from any 300-400 level ARHI prefix  3cr

Intermediate/Advanced Studio Required:  12
Select 300-400 level courses from four different studio areas (1, 2)
ART 313  Intermediate Ceramics: Wheel Throwing  3cr
ART 316  Intermediate Jewelry and Metals  3cr
ART 352  Intermediate Ceramics: Mold Making  3cr
ART 355  Intermediate Graphic Design I  3cr
ART 356  Intermediate Graphic Design II  3cr
ART 421  Advanced Drawing  3cr
ART 451  Advanced Woodworking: Function and Form  3cr
ART 452  Advanced Ceramics  3cr
ART 453  Advanced Sculpture  3cr
ART 454  Advanced Painting  3cr
ART 455  Advanced Graphic Design I  3cr
ART 456  Advanced Graphic Design II  3cr
ART 457  Advanced Print Media  3cr
ART 459  Advanced Fibers  3cr
ART 460  Advanced Jewelry and Metals  3cr
ART 481  Special Topics  3cr
ART 493  Internship  3cr

Free Electives:  34-35

(#) Total Degree Requirements:  120

(1) Students must complete 3cr within an advanced studio before permission will be granted to enroll in the 6cr component of the advanced level. Permission of the instructor is a prerequisite to all 6cr advanced courses.
(2) Inclusion of internship credits toward any portion of fulfillment of degree requirements must be approved by the departmental chair and student’s major advisor. Approval must be obtained in writing before enrollment. Students must complete the Sophomore Review.
(#) See advisory paragraph “Timely Completion of Degree Requirements” in the section on Requirements for Graduation.

Bachelor of Fine Arts—Art Studio

Liberal Studies: As outlined in Liberal Studies section with the following specifications:

Fine Arts: ARHI 205
Mathematics: 3cr
Liberal Studies Elective: 3cr, ARHI 207, no courses with ART prefix

Major:

Foundation Required:  12
ART 111  Figure Drawing  3cr
ART 112  Fundamentals of Drawing  3cr
ART 113  Three-Dimensional Design  3cr
ART 114  Color and Two-Dimensional Design  3cr

Beginning Studio Electives: Five of the following nine courses:  15
ART 211, 213, 214, 215, 216, 217, 218, 219, 281
(ART 281 may be used only once)

Art History Required:  6
ARHI 100  Arts of the 20th Century  3cr
Controlled ARHI Elective: One course from any 300-400 level ARHI prefix  3cr

Intermediate/Advanced Studio Required:  27
(Select one of two tracks.)

Art Studio Track:
Studio areas of study include ceramics, painting, woodworking, drawing, fibers, sculpture, print media, jewelry and metals, and internship. Select from ART 313, 316, 352, 421, 451, 452, 453, 454, 457, 459, 460, 481, 493

Graphic Design Track:
Studio area of study includes graphic design and internship. Select from ART 355, 356, 455, 456, 481, 493

Primary Studio Emphasis: Select any 300-400 level courses from one studio area listed in track options above. (2, 3)

Synthesis Studio: Art Studio Track majors select 300-400 level courses listed within track options above that are outside students’ primary studio area. These studio courses must relate to one’s primary studio area emphasis conceptually and/or technically. Graphic Design Track majors may select 300-400 level graphic design courses or 300-400 level courses from the Art Studio Track if they relate conceptually and/or technically. (2, 3, 4)

Intermediate/Advanced Studio Electives:  9
Select any 300-400 level art studio courses. (1, 2)

Senior Thesis and Professional Practicum:  3
ART 400  Professional Practices  3cr

Free Electives:  4-5

(#) Total Degree Requirements:  120

(1) Student must achieve a cumulative 2.5 GPA and earn a “C” or better in all ART and ARHI courses to graduate.
(2) Students must complete 3cr within an advanced studio before permission will be granted to enroll in the 6cr component of the advanced level. Permission of the instructor is a prerequisite to all 6cr advanced courses.
(3) Inclusion of internship credits toward any portion of fulfillment of degree requirements must be approved by the departmental chair and student’s major advisor. Approval must be obtained in writing before enrollment.
(4) Synthesis studio courses must be approved by academic advisor.
(#) See advisory paragraph “Timely Completion of Degree Requirements” in the section on Requirements for Graduation.

Bachelor of Science in Education—Art Education (*)

Liberal Studies: As outlined in Liberal Studies section with the
following specifications:

**Fine Arts:** fulfilled by ARHI 205

**Mathematics:** 3cr

**Natural Science:** Option II

**Social Science:** PSYC 101

**Liberal Studies Elective:** 3cr, ARHI 207

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**College:**

**Professional Education Sequence:**

- An additional 3cr of MATH 101 or above 3cr
- ACE 103 Digital Instructional Technology 3cr
- EDEX 301 Education of Students with Disabilities in Inclusive Secondary Settings 2cr
- EDEX 323 Instruction of English Language Learners with Special Needs 2cr
- EDSP 102 Educational Psychology 3cr
- EDUC 242 Pre-student Teaching Clinical Experience I 1cr
- EDUC 342 Pre-student Teaching Clinical Experience II 1cr
- EDUC 421 Student Teaching (Elementary) 6cr
- EDUC 441 Student Teaching (Secondary) 6cr
- EDUC 442 School Law 1cr

---

**Major:**

**Required Courses:**

- ARED 101 Introduction to Art Education 3cr
- ARED 215 Issues in Art Education 3cr
- ARED 317 Art in K-6 Programs 3cr
- ARED 318 Art in 7-12 Programs 3cr
- ART 112 Fundamentals of Drawing 3cr
- ART 113 Three-Dimensional Design 3cr
- ART 114 Color and Two-Dimensional Design 3cr

**Controlled Electives:**

- 15 credits from the following: ARHI 100, ART 111, 211, 213, 214, 215, 216, 217, 218 15cr
- 15 credits from any ARHI or ART prefix. 15cr
- 3 credits from any ARED prefix. 3cr

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### Total Degree Requirements:

125-126

(*) See requirements leading to teacher certification, titled “3-Step Process for Teacher Education,” in the College of Education and Communications section of this catalog.

(#) See advisory paragraph “Timely Completion of Degree Requirements” in the section on Requirements for Graduation.

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### Minor—Art History

- **Required Courses:**
  - ARHI 205 Ancient to Medieval Art 3cr
  - ARHI 207 Renaissance through Modern Art 3cr
  - ARHI 224 Introduction to Asian Art 3cr

- Three additional courses with an ARHI prefix except ARHI 101 9

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### Minor—Art Studio

- **Three courses from the following:**
  - ART 111 Figure Drawing 3cr
  - ART 112 Fundamentals of Drawing 3cr
  - ART 113 Three-Dimensional Design 3cr
  - ART 114 Color and Two-Dimensional Design 3cr
  - ART 211 Painting 3cr
  - ART 213 Woodworking: Function and Form 3cr
  - ART 214 Ceramics 3cr
  - ART 215 Sculpture 3cr
  - ART 216 Jewelry and Metals (1) 3cr
  - ART 217 Print Media 3cr
  - ART 218 Graphic Design (1) 3cr
  - ART 281 Special Topics 3cr

- **Three courses from the following:**
  - ART 316 Intermediate Jewelry and Metals 3cr
  - ART 355 Intermediate Graphic Design I 3cr
  - ART 356 Intermediate Graphic Design II 3cr
  - ART 421 Advanced Drawing 3cr
  - ART 451 Advanced Woodworking: Function and Form 3cr
  - ART 452 Advanced Ceramics 3cr
  - ART 453 Advanced Sculpture 3cr
  - ART 454 Advanced Painting 3cr
  - ART 455 Advanced Graphic Design I 3cr
  - ART 456 Advanced Graphic Design II 3cr
  - ART 457 Advanced Print Media 3cr
  - ART 460 Advanced Jewelry and Metals 3cr
  - ART 481 Special Topics 3cr

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(1) Courses have prerequisites. Check the catalog for details and discuss course of study with minor advisor. The instructor may choose to waive the prerequisite for art studio minors.

(2) Art Minors are permitted to repeat any advanced 400-level advanced studio course multiple times to fulfill the 9cr requirement.

(3) Art Minors are not permitted to take section 002 of any 400-level advanced studio course for six credits.

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**Department of Music**

**Website:** [www.iup.edu/music](http://www.iup.edu/music)

**Stephanie B. Caulder, Chair**

The mission of the IUP Department of Music is the professional preparation of music students as teachers, performers, composers, and scholars. We are committed to providing the highest level of creative, intellectual, and cultural experiences through curricular offerings, recitals, concerts, productions, and workshops for both the student body and the university community. The Department of Music recognizes its responsibility to serve a local and global community and to promote diversity/multiculturalism, as well as embrace and encourage lifelong advocacy for the musical arts. Degrees offered are the bachelor of arts, bachelor of fine arts, and bachelor of science in education.

Admission to the Music Department requires satisfactory completion of an audition, in addition to the university general requirements. Detailed information will be sent to the applicant upon request.

The Bachelor of Arts degree is for students who desire a broad-based education while developing their musicianship, scholarship, and performance skills. This program combines a core curriculum of music studies with both general education and liberal arts courses and is ideal for students who wish to pursue a double major or minor in another academic field.

The Bachelor of Fine Arts degree (equivalent to the Bachelor of Music degree) emphasizes the application of musical knowledge and skill. The student in this program prepares to pursue a career as a professional performing musician or composer.

The Bachelor of Science in Education—Music Education is an educator preparatory program that leads to K-12 certification to teach in the school of Pennsylvania.

**Special Requirements for All Music Majors**

1. Each student must declare a primary performing medium. Those who elect voice as their primary instrument normally elect piano as a secondary instrument. Performance juries are held at the end of each semester. Students are expected to complete the requirements for their performing area and level. Piano proficiency is required in all degree programs. Students who matriculate with keyboard skills beyond those covered in class piano must substitute, at the discretion of the keyboard area, APMU 101 Applied Piano I and/or APMU 151 Applied Piano II for a total of 2cr.

2. Each semester, students must participate in at least one large ensemble on their primary instrument. They must also participate in at least one small ensemble each semester, to be selected by their advisor. The large ensembles include MUSC 122 University Chorale, MUSC 123 Symphony Band, MUSC 124 Concert Band, MUSC 125 Marching Band, MUSC 129 University Symphony Orchestra, MUSC 131 University Wind Ensemble, MUSC 132 Treble or Bass Choir, and MUSC 134
University Chorus. For pianists, guitarists, and other students whose primary instrument does not regularly feature in large ensembles, the department chair will assign suitable alternatives. Students may satisfy the ensemble requirement by enrolling in either 1cr or 0cr ensembles so long as they accrue the total number of ensemble credits required by their degree program.

3. Students must register for MUSC 475 Music Lab and attend four departmental meetings and eight campus performances each semester, as required by their degree program (seven semesters for the BSEd program and eight semesters for the BA and BFA programs). Campus performances may include recitals, concerts, art exhibitions, theatre productions, and so on.

4. In addition to a successful audition for entrance into the Department of Music, prospective students are required to complete a diagnostic music theory exam. Those who score below 70 percent on the exam must take MUSC 113 Theory I Practicum concurrently with MUSC 115. Students may attempt the diagnostic exam twice.

**Bachelor of Arts—Music**

**Liberal Studies:** As outlined in Liberal Studies section with the following specifications:

**Fine Arts:** MUHI 102

**Humanities Literature:** One course from ENGL 210-214, 225-226, or 340-349

**Mathematics:** MATH 101 or other Liberal Studies Mathematics

**Natural Science:** Option II recommended, PHYS 105 recommended

**Social Science:** PSYC 101

**Liberal Studies Elective:** 3cr, MUHI 301, no courses with MUSC prefix

**Major:** 39

**Required Courses:**

- APMU (Primary) Applied Music I-VI (2cr each) 12cr
- APMU 427 Capstone Jury: Primary Instrument 0cr
- MUHI 302 Music History II 3cr
- MUSC 111 Theory Skills I 2cr
- MUSC 112 Theory Skills II 2cr
- MUSC 115 Theory I 3cr
- MUSC 116 Theory II 3cr
- MUSC 153 Class Piano I 1cr
- MUSC 154 Class Piano II 1cr
- MUSC 180 Technology for General Musicianship 2cr
- MUSC 211 Theory Skills III 2cr
- MUSC 212 Theory Skills IV 2cr
- MUSC 215 Theory III 3cr
- MUSC 216 Theory IV 3cr
- MUSC 475 Music Lab (8 semesters of recital attendance) 0cr

**Controlled Electives:** 3

- APMU 126; MUSC 217 (required for piano and organ majors only), 351, 353, 354, 356 required for final major; MUSC 120-140 (4 semesters of music ensembles, 0-3cr)

**Free Electives:** (1) 32

**Total Degree Requirements:** 120

(1) Students are encouraged to consider a minor in another department.

**Bachelor of Fine Arts—Music Performance**

**Liberal Studies:** As outlined in Liberal Studies section with the following specifications:

**Fine Arts:** MUHI 102

**Humanities Literature:** Fulfilled by MUHI 102

**Mathematics:** MATH 101 or other 3cr Liberal Studies Mathematics

**Natural Science:** Option II recommended, PHYS 105 recommended

**Social Science:** PSYC 101

**Liberal Studies Electives:** 6cr, MUHI 301, 302, no courses with MUSC prefix

**Major:** 54-56

**Required Courses:**

- APMU (Primary) Applied Music I-VIII (4cr each) (1) 30-32cr
- APMU 427 Capstone Jury: Primary Instrument 0cr
- MUSC 111 Theory Skills I 2cr
- MUSC 112 Theory Skills II 2cr
- MUSC 115 Theory I 3cr
- MUSC 116 Theory II 3cr
- MUSC 180 Technology for General Musicianship 2cr
- MUSC 211 Theory Skills III 2cr
- MUSC 212 Theory Skills IV 2cr
- MUSC 215 Theory III 3cr
- MUSC 216 Theory IV 3cr
- MUSC 311 Fundamentals of Conducting 2cr
- MUSC 475 Music Lab (8 semesters of recital attendance) 0cr

**Controlled Electives (all concentrations):** 21-23

- MUSC 120-140 Music Ensembles (2) 8cr
- Electives with APMU, MUSC (but not 120-140), or MUHI prefix 0-11cr

**Controlled Electives (keyboard majors):** MUSC 217, 405

**Controlled Electives (voice majors):** APMU 126; MUSC 153, 154, 351, 353, 354, 406; foreign language course at 100-level or above (critical languages excluded)

**Controlled Electives (string majors):** APMU 126, MUSC 153, 154

**Controlled Electives (wind and percussion majors):** APMU 126, 480, MUSC 153, 154

**Controlled Electives (composition majors):** MUSC 217, 315, 417

**Total Degree Requirements:** 120

(1) Voice, keyboard, and string majors will take eight semesters of 4cr lessons (32cr). Wind and percussion majors will take seven semesters of 4cr lessons and one semester of 2cr lessons (30cr). Composition majors will take up to 16cr of composition lessons.

(2) Students are required to participate in ensembles for five hours a week each semester for eight semesters.

**Bachelor of Science in Education—Music Education (**)**

**Liberal Studies:** As outlined in Liberal Studies section with the following specifications:

**Fine Arts:** fulfilled by courses in the major

**Humanities:** MUHI 102

**Mathematics:** 3cr, MATH 101, 105, 110, or 217

**Natural Science:** Option II

**Social Science:** PSYC 101

**Liberal Studies Electives:** 6cr, MUHI 301, 302

**College:**

**Professional Education Sequence:**

- EDEX 323 Instruction of English Language Learners with Special Needs 2cr
- EDSP 102 Educational Psychology 3cr
- EDUC 242 Pre-student Teaching Clinical Experience I 1cr
- EDUC 342 Pre-student Teaching Clinical Experience II 1cr
- EDUC 421 Student Teaching Elementary Level 6cr
- EDUC 441 Student Teaching Secondary Level 6cr
- EDUC 442 School Law 1cr
- MUSC 240 Technology in the Music Classroom 2cr
- MUSC 331 Elementary Methods 2cr
- MUSC 333 Instrumental Methods 2cr
- MUSC 335 Music for Students with Disabilities in Inclusive Settings 1cr
- MUSC 337 General/Choral Methods 2cr
- One additional course from MATH 101, 105, 110, or 217 3cr

**Major:** 53

**Required Courses:**

- APMU (Primary) Applied Music I-VII 14cr
- APMU 427 Capstone Jury: Primary Instrument 0cr
- MUSC 111 Theory Skills I 2cr

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Page 94 INDIANA UNIVERSITY OF PENNSYLVANIA UNDERGRADUATE CATALOG, 2019-20
Students must audition to be admitted into the minor.

Also see requirements leading to teacher certification, titled "3-Step Process for Teacher Education," in the College of Education and Communications section of this catalog.

### Certificate—Popular Music Studies (1)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 249</td>
<td>Basic Audio Recording Techniques</td>
<td>3cr</td>
</tr>
<tr>
<td>COMM 414</td>
<td>Music, Media, and Culture</td>
<td>3cr</td>
</tr>
<tr>
<td>MUSC 114</td>
<td>Analysis of Popular Music</td>
<td>3cr</td>
</tr>
<tr>
<td>MUSC 140</td>
<td>Popular Music Ensemble (2)</td>
<td>1cr</td>
</tr>
</tbody>
</table>

### Electives:

Nine credits from the following:

- APMU Applied Music (1) 1-2cr
- COMM 354 Media Law and Policy 3cr
- COMM 449 Advanced Audio Recording Techniques 3cr
- MUHI 333 History of Popular Music Since 1945 3cr
- MUSC 140 Popular Music Ensemble (2) 1-3cr

(1) Applied music instructors may require certificate participants to demonstrate basic proficiency with voice or a musical instrument. Students may elect up to two semesters of 1cr lessons.

(2) Students must register for MUSC 140 Popular Music Ensemble (1cr) at least once. The course may be repeated up to three times for a total of four credits.

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### Music (1)

<table>
<thead>
<tr>
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<th>Credits</th>
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<tbody>
<tr>
<td>MUSC 112</td>
<td>Theory Skills II</td>
<td>2cr</td>
</tr>
<tr>
<td>MUSC 115</td>
<td>Theory I</td>
<td>3cr</td>
</tr>
<tr>
<td>MUSC 116</td>
<td>Theory II</td>
<td>3cr</td>
</tr>
<tr>
<td>MUSC 120-140</td>
<td>Music Ensembles (7 semesters)</td>
<td>0-1cr</td>
</tr>
<tr>
<td>MUSC 190</td>
<td>Introduction to Music Education</td>
<td>1cr</td>
</tr>
<tr>
<td>MUSC 211</td>
<td>Theory Skills III</td>
<td>2cr</td>
</tr>
<tr>
<td>MUSC 212</td>
<td>Theory Skills IV</td>
<td>2cr</td>
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<tr>
<td>MUSC 215</td>
<td>Theory III</td>
<td>3cr</td>
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<td>MUSC 216</td>
<td>Theory IV</td>
<td>3cr</td>
</tr>
<tr>
<td>MUSC 311</td>
<td>Fundamentals of Conducting</td>
<td>2cr</td>
</tr>
<tr>
<td>MUSC 312</td>
<td>Choral Conducting or Instrumental Conducting</td>
<td>2cr</td>
</tr>
<tr>
<td>MUSC 475</td>
<td>Music Lab (7 semesters of recital attendance)</td>
<td>0cr</td>
</tr>
</tbody>
</table>

### Concentration Area Courses: (select one concentration)

#### Voice Concentration

- APMU 101, 151, 201, and 251 Applied Piano I-IV (1cr each) 4cr
- APMU 127 Piano Proficiency Level II 0cr
- MUSC 351 Italian Diction and Literature 1cr
- MUSC 353 French Diction and Literature 1cr
- MUSC 354 German Diction and Literature 1cr

Select two of the following class instrument courses: 2cr

- MUSC 155 Class Strings I
- MUSC 157 Class Percussion I
- MUSC 159 Class Brass I
- MUSC 161 Class Woodwinds I

#### Instrumental Concentration

- APMU 126 Piano Proficiency Level I 0cr
- MUSC 121, 122, or 134 Choral Ensemble 1cr
- MUSC 151 Class Voice I 1cr
- MUSC 153 Class Piano I 1cr
- MUSC 154 Class Piano II 1cr
- MUSC 155 Class Strings I 1cr
- MUSC 157 Class Percussion I 1cr
- MUSC 159 Class Brass I 1cr
- MUSC 161 Class Woodwinds I 1cr

#### Controlled Electives:

Select courses with MUSC, MUHI, or APMU prefixes to earn a total of 53cr in major.

### Total Degree Requirements:

128

(*) Also see requirements leading to teacher certification, titled “3-Step Process for Teacher Education,” in the College of Education and Communications section of this catalog.

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### Minors

#### Music (1)

<table>
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<tr>
<td>MUSC 115</td>
<td>Theory I</td>
<td>3cr</td>
</tr>
<tr>
<td>MUSC 116</td>
<td>Theory II</td>
<td>3cr</td>
</tr>
<tr>
<td>MUSC 120-140</td>
<td>Music Ensembles (7 semesters)</td>
<td>0-1cr</td>
</tr>
<tr>
<td>MUSC 190</td>
<td>Introduction to Music Education</td>
<td>1cr</td>
</tr>
<tr>
<td>MUSC 211</td>
<td>Theory Skills III</td>
<td>2cr</td>
</tr>
<tr>
<td>MUSC 212</td>
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<td>2cr</td>
</tr>
<tr>
<td>MUSC 215</td>
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<td>3cr</td>
</tr>
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<td>Fundamentals of Conducting</td>
<td>2cr</td>
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<td>MUSC 312</td>
<td>Choral Conducting or Instrumental Conducting</td>
<td>2cr</td>
</tr>
<tr>
<td>or Instrumental Conducting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MUSC 475</td>
<td>Music Lab (7 semesters of recital attendance)</td>
<td>0cr</td>
</tr>
</tbody>
</table>

### Required Courses:

- Applied Music (APMU ___) (2)
- MUSC 115 Theory I
- MUSC 116 Theory Skills I or Theory II

2-4 semesters of the following: MUSC 120-140 (1cr each) 2-4cr

6cr of MUHI or MUSC 300-level or above 6cr

### Electives:

- 0-3

(1) Students must audition to be admitted into the minor.

(2) Admitted minors will receive one semester of 2cr applied lessons and may (when possible) receive further semesters depending on instructor availability. Students must be enrolled in an ensemble (as advised) during any semester in which they receive applied lessons.

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#### Popular Music Studies Certificate

The Certificate in Popular Music Studies introduces students to fundamental concepts associated with the creation and reception of popular music. It is a credential that enables students to demonstrate basic competency with the performance, production, or analysis of popular music, and may be particularly appealing to those studying music, communications media, entrepreneurship, or marketing.

The certificate program is administered jointly by the Department of Music and Department of Communications Media. It requires 10 credits of core courses and an additional nine credits of electives. While basic performance or songwriting ability is recommended, no audition is required for admission to the program.

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**Department of Theatre, Dance and Performance**

**Website:** [www.iup.edu/theatre](http://www.iup.edu/theatre)

**Brian R. Jones, Chair**

The Department of Theatre, Dance, and Performance leads innovation to transform local, regional, national, and global communities through diverse artistic practices. A classic, eclectic, and broad education provides a foundation for innovative, leading-edge courses and career path preparation led by an experienced faculty. It is dedicated to both theatre and dance as collaborative and highly disciplined fields offering an extended view of the world as part of a liberal and humanistic education. The department takes a broad view of performance in its traditional, applied and experimental forms. Study and practice includes design, technology, management and dramaturgy as requisite knowledge and skills. As a result, successful students develop an artistic sensibility, critical analysis, creative orientation, and a disciplined work ethic, skills necessary in most endeavors. They will be able to:

- apply an aesthetic sensibility through informed and knowledgeable critiques of live performance
- create work of artistic expression or technical craftsmanship in at least one area of production
- engage diverse audiences by transforming knowledge into understanding, and understanding into social impact
- utilize the skills, knowledge and techniques of theatre, dance, and performance to gain and keep employment in the performing arts, or in other fields in which these attributes can be gainfully applied.

The department offers a bachelor of arts degree in theatre with concentrations and a track in Musical Theatre, providing for the study of theatre within a broad liberal arts education. The department also coordinates the Interdisciplinary Fine Arts degree-Dance Arts Track (see the major in Interdisciplinary Fine Arts in the College of Fine Arts section of this catalog). The department offers a Dance minor and a Theatre minor. The Dance minor and Theatre minor each require 18 controlled credits.

**The BA in Theatre, Musical Theatre Track** degree offers students...
Theatre (NAST).

The Department of Theatre, Dance and Performance is a fully accredited institutional member of the National Association of Schools of Theatre (NAST).

### Bachelor of Arts—Theatre

#### Liberal Studies:
As outlined in Liberal Studies section with the following specifications:

#### Fine Arts:
Any except THTR 101

#### Mathematics:
3cr

#### Liberal Studies Electives:
3cr, no courses with THTR prefix

#### Major:
(1) 42

##### Foundation Courses:
- THTR 111 Foundations of Theatre 3cr
- THTR 116 Fundamentals of Theatrical Design 3cr
- THTR 211 History and Literature: Classical or 212 History and Literature: Renaissance 3cr
- THTR 213 History and Literature: Modern and Contemporary 3cr

##### Core Skills Courses:
- THTR 120 Stagecraft 3cr
- THTR 122 Costume Workshop 3cr
- THTR 140 Foundations of Performance 3cr
- THTR 226 Stage Management 3cr

#### Theatre Electives in Concentration Areas:
Choose one area:

##### Design/Tech/Management Area
- THTR 225 Theatre Graphics 3cr
- THTR 489 Design/Technology/Management Studio 3cr

##### Electives: Two courses from the following: 6cr
- DANC 355 Dance Production: Administration to Production 3cr
- THTR 221 Basic Stage Lighting 3cr
- THTR 223 Makeup for the Stage 3cr
- THTR 320 Scene Design 3cr
- THTR 321 Stage Lighting Design 3cr
- THTR 322 Costume Design 3cr
- THTR 323 Sound Design 3cr
- THTR 324 Advanced Stagecraft 3cr

##### Performance Area
- THTR 130 Stage Voice or 131 Stage Movement 3cr
- THTR 240 Acting I 3cr
- THTR 340 Acting II 3cr

##### Electives: One course from the following: 3cr

### Bachelor of Arts—Theatre/Musical Theatre Track

#### Liberal Studies:
As outlined in Liberal Studies section with the following specifications:

#### Fine Arts:
MUHI 101 or DANC 102

#### Mathematics:
3cr

#### Liberal Studies Electives:
6cr, no courses with THTR prefix

#### Major:
(1) 42

##### Foundation Studies Courses:
- THTR 211 Foundations of Theatre 3cr
- THTR 212 History and Literature: Classical or 213 History and Literature: Renaissance 3cr
- THTR 371 Musical Theatre History 3cr

##### Core Skills Courses:
- APMU 105 Voice I 1cr
- APMU 155 Voice II 1cr
- APMU 205 Voice III 1cr
- APMU 255 Voice IV 1cr
- DANC 260 Beginning Jazz Dance or 485 Dance Studio (Jazz) (2) 3cr
- DANC 280 Beginning Ballet or 485 Dance Studio (Ballet) (2) 3cr
- THTR 116 Fundamentals of Theatrical Design or 120 Stagecraft 3cr
- THTR 221 Basic Stage Lighting or 222 Stage Management 3cr
- THTR 240 Acting I (3) 3cr
- THTR 372 Musical Theatre Auditioning 3cr

##### Experiential Learning:
(4) 5cr
- MUSC 126 Music Theatre (5) 0-3cr
- MUSC 128 Opera/Musical in Production Ensemble (5) 1cr
- THTR 486 Practicum in Production (6) 0.5-3cr
- THTR 493 Internship 1-3cr

##### Electives: Select 3cr from the following: 3cr

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Knowledge of and training in all aspects of musical theatre within a liberal arts. Students entering the program will be advised to explore many dimensions of theatre, music, and dance and develop as singing actors with well developed additional skills and knowledge. Successful graduates will be able to compete for employment opportunities in the entertainment industry where musical talent is utilized. They will be capable of applying their learning to a wide variety of career options including, but not limited to, performance. For students intent on a professional career in performance, additional learning through free electives (and even a minor area of study) is advised in acting, voice training, music proficiency, and dance.

The program combines strengths of the voice program of the Music Department with the performance programs of the Theatre, Dance and Performance Department. An audition for both departments is required for entry into this challenging program.

Musical Theatre students will perform in main stage musicals of all genres, cabaret offerings, and studio performances.

As a practical extension of the academic program, the department offers a variety of production opportunities in the Theater-by-the-Grove mainstage and studio theaters. The IUP Dance Theater performs twice annually.

Attendance to the Theatre program requires satisfactory completion of an audition or interview, in addition to the university’s general admission requirements. Audition information is available at [www.iup.edu/theatre](http://www.iup.edu/theatre).

The Department of Theatre, Dance and Performance is a fully accredited institutional member of the National Association of Schools of Theatre (NAST).
DANC 270, 485, MUSC 153, THTR 340, 350, 373, 471

### Capstone:
- THTR 480 Theatre Seminar 1cr

### Free Electives:
28-29

### Total Degree Requirements:
120

1. Students must achieve a “C” or better in all major courses to graduate.
2. Level of dance studio competence will determine placement by faculty.
3. Proficiency in acting studio fundamentals is prerequisite. Students who do not demonstrate proficiency at audition will be required to take THTR 140.
4. Completion of eight different production experiences required.
5. Proficiency in music theory is prerequisite. Students who do not demonstrate proficiency at audition will be required to take MUSC 110.
6. Repeat for credit.

### Theatre Minor

The Theatre minor provides a foundation; students must meet with the department chair for initial advisement to be admitted into the minor. The minor will be tailored to individual student goals with a course plan.

**Minor—Theatre 18**

#### Required Courses:
- THTR 111 Foundations of Theatre 3cr

One course from the following:
- THTR 120 Stagecraft 3cr
- THTR 122 Costume Workshop 3cr
- THTR 221 Basic Stage Lighting 3cr
- THTR 486 Practicum in Production (2) 1-3cr

#### Electives:
- 12-15 Courses with a THTR prefix as advised

1. THTR 101 satisfies the Liberal Studies Fine Arts requirement but may not be counted toward the Theatre minor.
2. Practicum credit is gained through assignment to theatre and dance company productions under the supervision of a faculty member. It is usually granted at 1-2cr for an assignment. Therefore, more than one assignment will need to be completed if a student wishes to accumulate exactly 18cr in the minor. It is possible to complete one practicum assignment and complete the balance of the minor with additional electives. This will usually result in 19 or 20cr in the minor.
3. Six credits at 300 level or above is required.

### Dance Minor

The Dance minor provides a foundation for those interested in teaching dance, working in administration with a dance company, managing a private dance studio, working with theatre productions, or desiring a broad-based education within the dance discipline.

The minor is an 18-credit program with 6 required and 12 advised elective credits. The required credits include pertinent foundation courses and advanced-level theory courses. The required courses also provide a comprehensive study of production elements, fundamental and historical theories of dance, and dance choreographic and teaching theories that cannot be obtained in any of the elective courses. The advised elective credits include the technique courses.

The Dance minor is based on the National Standards for Arts Education dance requirements. Using this basis for the program ensures fundamental preparation for a number of students’ needs, e.g., the dance teacher, the performer, and the dance studio owner.

Through advisement, the minor program can serve the individual student’s needs. The program would be of interest to majors in secondary and elementary education, small business, recreation and physical education, theatre, music, and interdisciplinary fine arts and anyone who has an inter-

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**Minor—Dance 18**

#### Required Courses:
- 6
  - DANC 102 Introduction to Dance 3cr
  - One course from the following:
    - DANC 351 Choreography 3cr
    - DANC 353 Dance Curriculum and Instruction 3cr
    - DANC 355 Dance Production: Administration to Production 3cr

#### Four courses from the following as advised:
- 12
  - DANC 150 Fundamentals of Dance 3cr
  - DANC 250 Beginning Modern Dance 3cr
  - DANC 260 Beginning Jazz Dance 3cr
  - DANC 270 Beginning Ballroom and Tap Dance 3cr
  - DANC 280 Beginning Ballet 3cr
  - DANC 290 Ethnic Dance 3cr
  - DANC 485 Dance Studio 3cr
The College of Health and Human Services comprises nine multifaceted departments that offer 26 programs leading to a baccalaureate degree, 16 master’s degree programs, eleven minors, three credit-bearing certificate programs, and six noncredit certificate programs. The departments in the college are Criminology and Criminal Justice; Culinary Arts; Employment and Labor Relations; Food and Nutrition; Kinesiology, Health, and Sport Science; Hospitality Management; Human Development, Fashion, and Interior Design; Nursing and Allied Health Professions; and Safety Sciences.

The college offers degrees in areas relevant to workforce needs and prides itself on having established a learning-centered environment in which the curricula bridge theory and practice. Hands-on fieldwork, observations, internships, clinical experiences, service-learning opportunities, and cooperative education are regular components of the curricula and provide valuable learning experiences for students. Instructional methods are often cooperative and collaborative, affording students the opportunity to understand what they can contribute to and gain from collective efforts. Discovery-based instruction provides opportunities to learn about a discipline by practicing in the field. Media technology, an ever-expanding resource, provides access to worldwide information. Faculty members recognize the central role of the learner in the learning process and strive to create integrated, holistic learning environments. The focus on learning is a commitment to the continuous improvement of the quality of education offered by the college.

The mission of the College of Health and Human Services is to serve the public interest by preparing professionals for applied professional disciplines. Graduates will be compassionate, affirm high personal and professional standards, provide future leadership, and be committed to creating and advancing knowledge in their discipline.

College Majors

- **Baking and Pastry (AAS)** — pending final approval
- **Criminology (Pre-law Track available)**
- **Culinary Arts (AAS)**
- **Fashion Merchandising**
- **Health and Physical Education** (Tracks available: K-12 Teacher Education*, Community Health Education, Recreation and Leisure)
- **Hospitality Management (AS and BS)**
- **Human Resources and Employment Relations** (graduate program only)
- **Human Development and Family Science**
- **Interior Design**
- **K-12 Family and Consumer Sciences Education**
- **Medical Technology**
- **Medical Imaging** (Tracks available: Nuclear Medical Technology, Diagnostic Medical Sonography, Echocardiography)
- **Nutrition** (Tracks available: Culinary Dietetics, Dietetics, Nutrition)
- **Nursing** (Licensed Practical Nurse Track available)
- **Physical Education and Sport** (Programs available: Exercise Science, Pre-Athletic Training, Sport Administration)
- **Respiratory Care** (Certified Respiratory Therapist Track available)
- **Safety, Health, and Environmental Applied Sciences**
- **Hotel and Lodging Management**
- **Nutrition**
- **Restaurant and Food Service Management**
- **Safety, Health, and Environmental Applied Sciences**
- **Special Event/Tourism Management**
- **Sport Management**

Credit Certificate Programs

- **Athletic Coaching**
- **Gerontology**

Noncredit Certificate Programs

- **Baking and Pastry**
- **Clinical Medical Assistant**
- **Criminal Justice Training**
- **Culinary**
- **Emergency Medical Technician**
- **Paramedic**

* Programs leading to PA Teacher Certification, also available Driver Education

Interdisciplinary Programs, Minors and Certificates

The Interdisciplinary degree programs, minors, and certificates are multidisciplinary and are not specific to one university college. Requirements for each of the interdisciplinary offerings appear in the Academic Affairs section.

**Degree Programs:** Public Health (Available Tracks: Behavioral and Mental Health, Environmental and Occupational Health, Epidemiology and Biostatistics, Global and Rural Communities)

**Minors:** Child and Adult Advocacy Studies, Global Health, Pre-Law, Professional Teamwork and Leadership, Sustainability Studies

**Certificates:** Child Adult and Advocacy Studies, Living Learning (Available Tracks: Global Scholarship, Scientific Communication), Shale, Gas, and Energy

Department of Criminology and Criminal Justice

Website: www.iup.edu/criminology

Jamie Martin, Chair

The Department of Criminology and Criminal Justice offers students seeking careers in criminology or criminal justice a broad liberal arts education that encourages them to think critically about crime and justice issues and prepares them for careers in the criminal justice system. The degree programs offered are the bachelor of arts program in criminology and the bachelor of arts program in criminology/pre-law. Additionally, students may minor in criminology. Through the School of Graduate Studies and Research, the department also offers graduate work at both the master’s and doctoral levels.

The program in criminology and criminal justice has a fivefold objective:

1. The education of students for employment and leadership in the expanding field of criminology and criminal justice
2. The education of presently employed criminal justice personnel who recognize a need for furthering their education
3. The instruction of students who wish to acquire an understanding of the processes of criminal justice as a cultural part of their higher education
4. The instruction of students who wish to prepare for graduate study and/or research in criminology
5. A curriculum that provides an excellent foundation for students preparing for a career in law
Nearly every level of government offers opportunities for professional careers in criminology and criminal justice. For example, employment opportunities normally exist in more than 50 federal agencies (e.g., Federal Bureau of Investigation, US Department of Treasury, Federal Bureau of Prisons). Graduates also will find employment in local and state organizations including law enforcement (e.g., Pennsylvania State Police, various municipal police departments) and correctional agencies (e.g., probation, parole, Pennsylvania Department of Corrections). Additionally, there are a wide variety of opportunities in the expanding fields of private, commercial, and industrial security, including cybersecurity. Furthermore, many governmental agencies have specialized units dealing with juveniles, community relations, training, education, and research. Career opportunities also are available in research and teaching at the college level and in research divisions of various agencies.

**Bachelor of Arts—Criminology**

**Liberal Studies:** As outlined in Liberal Studies section with the following specifications:

- **Mathematics:** MATH 217
- **Natural Science:** SCI 107/117 and CHEM 105 or BIOL 106 and 107 recommended
- **Social Science:** CRIM 101

**Liberal Studies Electives:** 6 cr, no courses with CRIM prefix

**Major:**

**Required Courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRIM 102</td>
<td>Survey of Criminology</td>
<td>3 cr</td>
</tr>
<tr>
<td>CRIM 306</td>
<td>Criminological Research Methods</td>
<td>3 cr</td>
</tr>
<tr>
<td>CRIM 400</td>
<td>Theoretical Criminology</td>
<td>3 cr</td>
</tr>
<tr>
<td>CRIM 401</td>
<td>Contemporary Issues in Criminology</td>
<td>3 cr</td>
</tr>
<tr>
<td>CRIM 403</td>
<td>Dilemmas in Criminology and Criminal Justice</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

**Controlled Electives:**

- Two courses from each group:
  - **Group A: The Criminal Justice System**
    - CRIM 205, 215, 225, 235, 255
  - **Group B: Critical Issues in Criminology**
    - CRIM 344, 354, 374, 384, 394
  - **Group C: Diversity Issues in Criminology**
    - CRIM 410, 450, 470

**Free Electives:** (1)

- 40-41 cr

**Total Degree Requirements:**

- 120 cr

(1) Completion of a minor is strongly recommended.

**Bachelor of Arts—Criminology/Pre-law Track**

**Liberal Studies:** As outlined in Liberal Studies section with the following specifications:

- **Mathematics:** MATH 217
- **Natural Science:** CHEM 111-112 or BIOL 103-104 recommended
- **Social Science:** CRIM 101

**Liberal Studies Electives:** 6 cr, no courses with CRIM prefix

**Major:**

**Required Courses:**

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<td>3 cr</td>
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</tbody>
</table>

**Controlled Electives:**

- Two courses from each group:
  - **Group A: The Criminal Justice System**
    - CRIM 205, 215, 225, 235, 255
  - **Group B: Critical Issues in Criminology**
    - CRIM 344, 354, 374, 384, 394
  - **Group C: Diversity Issues in Criminology**
    - CRIM 410, 450, 470

**Other Requirements:**

- **Pre-law Interdisciplinary Track**
  - Seven courses, including at least one from each of six areas:
    - **Business:** ACCT 201, ACCT 202, BLAW 235
    - **Economics:** ECON 121, 122, 332
    - **English:** ENGL 212, 227, 265, 310, 321
    - **History:** HIST 320, 341, 342, 346, 475
    - **Philosophy:** PHIL 101, 122, 130, 221, 270, 320, 450
    - **Political Science:** PLSC 358, 359, 361, 405

**Free Electives:**

- 19-26 cr

**Total Degree Requirements:**

- 120 cr

**Minor—Criminology (1)**

**Required Courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRIM 101</td>
<td>Crime and Justice Systems (2)</td>
<td>3 cr</td>
</tr>
<tr>
<td>CRIM 102</td>
<td>Survey of Criminology</td>
<td>3 cr</td>
</tr>
<tr>
<td>CRIM 401</td>
<td>Contemporary Issues in Criminology</td>
<td>3 cr</td>
</tr>
<tr>
<td>CRIM 403</td>
<td>Dilemmas in Criminology and Criminal Justice</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

- Two additional CRIM electives, one chosen from Controlled Electives Group B and one from Group C (3, 4)

(1) Must have formal Department of Criminology and Criminal Justice approval to be admitted to Criminology minor.

(2) Meets Liberal Studies Social Science requirement.

(3) For students in the Computer Science/Cyber Security program, CRIM 321 may be substituted for Group B elective.

(4) For students in the Computer Science/Cyber Security program, CRIM 323 may be substituted for Group C elective.

**Minor—Cyber Security (1)**

**Required Courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COSC 108</td>
<td>Introduction to Programming via Alice (2) or 110 Problem Solving and Structured Programming</td>
<td>3 cr</td>
</tr>
<tr>
<td>COSC 316</td>
<td>Host Computer Security</td>
<td>3 cr</td>
</tr>
<tr>
<td>COSC 345</td>
<td>Computer Networks (3) or COSC/IFMG 352  LAN Design and Installation (3)</td>
<td>3 cr</td>
</tr>
<tr>
<td>CRIM 101</td>
<td>Crime and Justice Systems (4) or 102 Survey of Criminology (4)</td>
<td>3 cr</td>
</tr>
<tr>
<td>CRIM 321</td>
<td>Cybersecurity and Loss Prevention</td>
<td>3 cr</td>
</tr>
<tr>
<td>CRIM 323</td>
<td>Cybersecurity and the Law</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

(1) Computer Science/Cyber Security Track students are not eligible to take this minor; instead, they must take a criminology minor.

(2) Computer science majors cannot count COSC 108 or 110; instead, they must take one additional course from the following: CRIM 344, 354, 401.

(3) Computer science majors cannot count COSC/IMFG 352. Computer science majors must take COSC 345.

(4) Criminology majors cannot count CRIM 101 or 102; instead, they must take one additional course from the following: COSC 341, 356, 362, 427, 429, 432, 454, 482, IFMG 382. Students must select COSC 356 to receive NSTISSE 4011 certification.

**Criminal Justice Training Center (CJTC)**

The CJTC provides high-quality education and training programs for the continuing professionalism of the criminal justice system. The CJTC is one of only 17 schools in the commonwealth certified to offer Act 120 training, an 924-hour program that qualifies graduates to be municipal police officers. The police academy is located at the Indiana campus at IUP and various satellite locations. The center also offers programs for in-service personnel in fulfillment of annual mandatory continuing education requirements and nonmandatory courses such as Basic and Advanced Accident Investigation, Perceptual Driving, and Instructor Development. Lethal Weapons Training, Act 235, provides the basic requirements and mandatory recertification for armed security personnel. Visit the website www.iup.edu/crimjustice for more information.

**Department of Culinary Arts**
The Department of Culinary Arts offers a five-semester associate in Applied Science degree in Culinary Arts and a five-semester associate in Applied Science in Baking and Pastry Arts. These distinctive programs combine hands-on learning experiences in the kitchen laboratory, instruction in fundamental culinary and baking and pastry theory, liberal studies coursework, and a paid externship in the industry to provide each student with the necessary skills and knowledge to begin a successful career in the field of culinary arts or baking and pastry arts. The program consists of the 16-month, competency-based culinary arts or baking and pastry arts curriculum, plus an additional 12 credits of Liberal Studies requirements.

This contemporary approach to learning enables students to achieve advanced levels of proficiency in culinary and/or baking and pastry techniques and business management skills combined with a basic foundation of liberal arts knowledge.

The Department of Culinary Arts also offers a 16-month, non-credit Certificate in Culinary Arts and a 16-month, non-credit Certificate in Baking and Pastry Arts. Both programs are accredited by the American Culinary Federation.

Graduates may elect to transfer 38 credits of course work toward a Bachelor of Science degree program in Hospitality Management, 32 credits toward a Bachelor of Science degree program in Nutrition, or 21 credits toward a Bachelor of Science degree program in Family and Consumer Science Education.

**Associate in Applied Science—Culinary Arts**

**Liberal Studies:** As outlined in the Liberal Studies section with the following specifications: 21-22 credits

- English: ENGL 101 3cr
- Mathematics: MATH 101 3cr (1)
- Humanities: HIST 196, 197, 198 or ENGL 121 3cr
- Natural Science: Lab or Non-Lab Science 3-4cr
- Social Science 3cr
- Liberal Studies Electives: COSC/IFMG 101 and FDNT 145 6cr (2,3)

**Major Culinary Arts:**

**Required Courses:**
- Completion of Culinary Program Coursework and Externship 39 credits
- Completion of Liberal Studies requirements.
- The remaining 12-13cr will be completed in one additional semester after successful completion of the Culinary Externship.

**Total Degree Requirements:** 60 credits

(1) CMGT 1200 is established as equivalent to MATH 101
(2) CMGT 1301 is established as equivalent to LS Electives FDNT 145
(3) COMP 1000 and COMP 2000 are established as equivalent to COSC/IFMG 101

**Associate in Applied Science-Baking and Pastry Arts**

Pending Final sApproval

**Liberal Studies:** As outlined in the Liberal Studies section with the following specifications: 21-22 credits

- Mathematics: MATH 101 3cr (1)
- English: ENGL 101 3cr
- Natural Science: Lab or Non-Lab Science 3-4cr
- Social Science 3cr
- Humanities: HIST 196, 197, 198, ENGL 121, PHIL/RLST course 3cr

**Major Baking and Pastry Arts:**

**Required Courses:**
- Completion of Baking and Pastry program coursework and externship 39 credits

**Total Degree Requirements:** 60-61 credits

(1) CMGT 1200 is established as equivalent to MATH 101
(2) CMGT 1301 is established as equivalent to LS Electives FDNT 145
(3) COMP 1000 and COMP 2000 are established as equivalent to COSC/IFMG 101

**Department of Employment and Labor Relations**

Website: www.iup.edu/elr

David M. Piper, Chair

The Department of Employment and Labor Relations offers a graduate program within the College of Health and Human Services leading to the degree of master of arts in Human Resources and Employment Relations. The 36-credit program consists of a required core of 21 credits, including an elective thesis and elective course offerings totaling 15 credits. Internships are available and strongly encouraged.

The program is multidisciplinary, combining analytical and human relations skills with knowledge drawn from social sciences and business disciplines. The degree is designed to prepare professional employment and labor relations practitioners in public and private management, unions, neutral agencies, government agencies, and arbitration panels.

While the department does not offer course work leading to an undergraduate major or degree, it does offer several undergraduate courses that are open to students of any major or college.

**Department of Food and Nutrition**

Website: www.iup.edu/foodnutrition

Stephanie Taylor-Davis, Chair

The Department of Food and Nutrition offers a bachelor of science degree program in nutrition with three tracks: Dietetics, Culinary Dietetics, and General Nutrition. Within the degree program, students select a Natural Science option determined by their academic preparation and career goals. This curriculum prepares students as professionals for a diversity of career opportunities in dietetics, food service, the food industry, food and nutrition research, and health care.

In addition, the department provides Liberal Studies courses that are available to all university students. These include FDNT 143, Current Issues in Nutrition and Wellness, a course that meets the Dimensions of Wellness requirement, and FDNT 145, Personal Nutrition, a Liberal Studies elective.

**Dietetics Track**

Students who complete the Dietetics Track (Didactic Program in Dietetics) meet the academic requirements as accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND) of the Academy of Nutrition and Dietetics. This track prepares individuals to translate food and nutrition science information for members of the larger community with respect to healthful food preparation, healthy eating behaviors, medical nutrition therapy, management of nutrition delivery and food service systems, and advocacy for the profession of dietetics. The individual who completes this program will exhibit an in-depth knowledge of food, nutrition, behavioral sciences, and management theory and be able to apply this knowledge to solve problems. Graduates qualify for admission to ACEND-accredited dietetic internships in pursuit of dietetic registration.

**Culinary Dietetics Track**

Students who complete the Culinary Dietetics Track meet the academic requirements as accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND) of the Academy of Nutrition and Dietetics. The Culinary Dietetics Track allows students to combine academic preparation in nutrition with extensive hand-on learning experiences in...
cultural arts by one of two routes:

1. Students who have completed a minimum of 28 credits toward the baccalaureate degree have the opportunity to enroll in the Culinary Arts program at the Punxsutawney Regional Campus, where the three-semester program (fall, spring, summer) will transfer into the Department of Food and Nutrition 32 credits, which apply to the bachelor of science degree. Students complete the culinary arts externship in the summer between the junior and senior years.

2. Students who earn a culinary certificate before admission to the Dietetics program will receive 32 credits toward the degree.

This track uniquely prepares graduates to incorporate healthy nutrition into classical cuisine, manage food service operations focused on nutrition needs, and integrate culinary arts into hospital, extended care, and school food service operations. Graduates qualify for admission to ACEND-accredited dietetic internships in pursuit of dietetic registration.

**Nutrition Track**

The Nutrition Track provides flexibility and options for students based upon their career goals or plans for a graduate education, depending upon the minor or second major that is chosen. Students can personalize the track toward employment within the fitness industry, community nutrition and health education, food and nutrition management, or other specialty areas. Students who minor in exercise science are prepared to take certification examinations offered by professional organizations, including the American College of Sports Medicine and the National Strength and Conditioning Association, among others. Those who graduate in the Nutrition Track with a minor in exercise science are eligible for early admission to the master of science in exercise science and/or food and nutrition. Students who minor in community health are eligible to take the National Commission for Health Education Credentialing exam and be recognized as a Certified Health Education Specialist. Students in the Nutrition Track who complete Medical Nutrition Therapy I and II are eligible for employment with the Special Supplemental Nutrition Program for Women, Infants, and Children. Students who wish to pursue graduate education in nutrition or other natural science-related programs should work carefully with their advisor so that appropriate chemistry, biology, and nutrition electives are chosen.

Students receive specific academic advisement regarding science and nutrition courses needed to progress to graduation, depending upon their career plans. Faculty advisors work across disciplines to effectively mentor students toward their educational and career goals. Students in the Nutrition Track may transfer to the Dietetics Track if their GPA is greater than or equal to a “C” or better. Students without these academic requirements may transfer into the Department of Food and Nutrition 32 credits, which apply to the bachelor of science degree. Students complete the culinary arts externship in the summer between the junior and senior years.

**Nutrition Minor**

This minor is recommended for students majoring in related disciplines, such as nursing and allied health, pre-medical, pre-pharmacy, hospitality management, kinesiology, health, and sport science, child development and family relations, and family and consumer sciences education, and for students who have a personal, consumer-oriented interest in nutrition. Science prerequisites for the minor are, at a minimum, CHEM 101/102 or BIO 104/106.

**Bachelor of Science—Nutrition/Dietetics Track**

**Liberal Studies:** As outlined in Liberal Studies section with the following specifications:

- **Dimensions of Wellness:** KHSS 143
- **Mathematics:** MATH 217
- **Natural Science:** CHEM 101-102 or 111-112 (1)
- **Social Science:** ECON 101 or 121, PSYC 101, SOC 151 or 161
- **Liberal Studies Elective:** 3cr, no courses with FDNT prefix

**Major:**

- **Required Courses:** (1)

- **Controlled Electives:**

**Dietetics Track:**

- FDNT 110 Careers in Food and Nutrition 1cr
- FDNT 150 Foods 3cr
- FDNT 151 Foods Laboratory 1cr
- FDNT 212 Nutrition 3cr
- FDNT 213 Life Cycle Nutrition 3cr
- FDNT 355 Medical Nutrition Therapy I 3cr
- FDNT 362 Experimental Foods 3cr
- FDNT 458 Advanced Human Nutrition 4cr
- FDNT 470 Human Food Consumption Patterns 3cr
- FDNT 484 Senior Seminar 1cr

**Controlled Electives:**

**Dietetics Track:**

- FDNT 364 Methods of Teaching Food and Nutrition 3cr
- FDNT 402 Community Nutrition 3cr
- FDNT 430 Professional Topics in Food and Nutrition 3cr
- FDNT 455 Medical Nutrition Therapy II 3cr
- FDNT 463 Nutrition Counseling 3cr
- HOSP 256 Human Resources in the Hospitality Industry 3cr
- HOSP 259 Hospitality Purchasing 3cr
- HOSP 220 Food Service Operations 3cr
- MGMT 310 Principles of Management 3cr

**Other Requirements:**

- **Natural Science Sequence:**
  - BIOL 105, 155, 241, CHEM 255 13cr

- **Free Electives:**
  - 10

**Total Degree Requirements:**

- 120

(1) Students who have completed a minimum of 28 credits toward the baccalaureate degree have the opportunity to enroll in the Culinary Arts program at the Punxsutawney Regional Campus, where the three-semester program (fall, spring, summer) will transfer into the Department of Food and Nutrition 32 credits, which apply to the bachelor of science degree. Students complete the culinary arts externship in the summer between the junior and senior years.

2. Students who earn a culinary certificate before admission to the Dietetics program will receive 32 credits toward the degree.

This track uniquely prepares graduates to incorporate healthy nutrition into classical cuisine, manage food service operations focused on nutrition needs, and integrate culinary arts into hospital, extended care, and school food service operations. Graduates qualify for admission to ACEND-accredited dietetic internships in pursuit of dietetic registration.

**Nutrition Track**

The Nutrition Track provides flexibility and options for students based upon their career goals or plans for a graduate education, depending upon the minor or second major that is chosen. Students can personalize the track toward employment within the fitness industry, community nutrition and health education, food and nutrition management, or other specialty areas. Students who minor in exercise science are prepared to take certification examinations offered by professional organizations, including the American College of Sports Medicine and the National Strength and Conditioning Association, among others. Those who graduate in the Nutrition Track with a minor in exercise science are eligible for early admission to the master of science in exercise science and/or food and nutrition. Students who minor in community health are eligible to take the National Commission for Health Education Credentialing exam and be recognized as a Certified Health Education Specialist. Students in the Nutrition Track who complete Medical Nutrition Therapy I and II are eligible for employment with the Special Supplemental Nutrition Program for Women, Infants, and Children. Students who wish to pursue graduate education in nutrition or other natural science-related programs should work carefully with their advisor so that appropriate chemistry, biology, and nutrition electives are chosen.

Students receive specific academic advisement regarding science and nutrition courses needed to progress to graduation, depending upon their career plans. Faculty advisors work across disciplines to effectively mentor students toward their educational and career goals. Students in the Nutrition Track may transfer to the Dietetics Track if their GPA is greater than or equal to a “C” or better. Students without these academic requirements may transfer into the Department of Food and Nutrition 32 credits, which apply to the bachelor of science degree. Students complete the culinary arts externship in the summer between the junior and senior years.

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Students receive specific academic advisement regarding science and nutrition courses needed to progress to graduation, depending upon their career plans. Faculty advisors work across disciplines to effectively mentor students toward their educational and career goals. Students in the Nutrition Track may transfer to the Dietetics Track if their GPA is greater than or equal to a “C” or better. Students without these academic accomplishments are not competitive to receive a required post-graduate supervised practice experience to become a Registered Dietitian Nutritionist.

**Nutrition Minor**

This minor is recommended for students majoring in related disciplines, such as nursing and allied health, pre-medical, pre-pharmacy, hospitality management, kinesiology, health, and sport science, child development and family relations, and family and consumer sciences education, and for students who have a personal, consumer-oriented interest in nutrition. Science prerequisites for the minor are, at a minimum, CHEM 101/102 or BIO 104/106.

**Bachelor of Science—Nutrition/Nutrition Track**

**Liberal Studies:** As outlined in Liberal Studies section with the following specifications:

- **Dimensions of Wellness:** KHSS 143
- **Mathematics:** MATH 217
- **Natural Science:** CHEM 101 and 102 or BIOL 104 and 106 (1)
- **Liberal Studies Elective:** 3cr, no courses with FDNT prefix (2)

**Major:**

- **Required Courses:** (1)

- **Controlled Electives:**

**Nutrition Track:**

- FDNT 150 Foods 3cr
- FDNT 151 Foods Laboratory 1cr
- FDNT 212 Nutrition 3cr
- FDNT 213 Life Cycle Nutrition 3cr
- FDNT 355 Medical Nutrition Therapy I 3cr
- FDNT 362 Experimental Foods 3cr
- FDNT 458 Advanced Human Nutrition 4cr
- FDNT 470 Human Food Consumption Patterns 3cr
- FDNT 484 Senior Seminar 1cr

**Controlled Electives:**

**Nutrition Track:**

- FDNT electives (200 level and above) (4) 6-12cr

**Free Electives:**

- 18-21cr

**Total Degree Requirements:**

- 120

(1) Depending upon career goals, different chemistry and biology course work may be needed in addition to the Natural Science Liberal Studies requirements. Students who desire to change to the dietetics track should select CHEM 101/102.

(2) For the gerontology certificate, PSYC 378 can be applied as a Liberal Studies elective. For the business administration minor, ECON 122 can be applied as a Liberal Studies elective.

(3) FCSE 450 may be substituted, with permission of the Human Development, Fashion, and Interior Design department chair.

(4) Number of FDNT electives depends upon number of credits in the minor, certificate, or concentration. Students who choose the exercise
science or community health minor must take FDNT 245 Sports Nutrition.

(5) Select one of the following: Minor in anthropology, biochemistry, biology, biomedical sciences, business administration, chemistry, child development and family relations, communications media, community health, exercise science, global health, hospitality management, journalism and public relations, psychology, sociology, or sustainability studies, other minors with Food and Nutrition department Chair permission.

6) Students who desire certification as a Certified Health Education Specialist must also choose KHSS 341 and NURS 410.

Bachelor of Science—Nutrition/Culinary Dietetics Track

Liberal Studies: As outlined in Liberal Studies section with the following specifications:
Dimensions of Wellness: KHSS, NURS, or FDNT 143
Mathematics: MATH 217
Natural Science: CHEM 101-102
Social Science: ANTH 470 or PLSC 101 or 111, PSYC 101, SOC 151 or 161

Liberal Studies Elective: 3cr, no courses with FDNT prefix (1)

Major: 30

Required Courses: (2)
FDNT 110 Careers in Food and Nutrition 1cr
FDNT 213 Life Cycle Nutrition 3cr
FDNT 355 Medical Nutrition Therapy I 3cr
FDNT 362 Experimental Foods 3cr
FDNT 364 Methods of Teaching Food and Nutrition 3cr
FDNT 402 Community Nutrition 3cr
FDNT 430 Professional Topics 3cr
FDNT 455 Medical Nutrition Therapy II 3cr
FDNT 458 Advanced Human Nutrition 4cr
FDNT 463 Nutrition Counseling 3cr
FDNT 484 Senior Seminar 1cr

Other Requirements: 45
Certificate in Culinary Arts (1, 3) 32cr
Natural Science Sequence: BIOL 241 or 270, 105, 155, CHEM 255 13cr

Free Electives: (4)

Total Degree Requirements: 120

(1) The culinary certificate includes a course in computer science (previously transferred as COSC 101), which is considered an additional 3cr toward Liberal Studies requirements, resulting in a total of 44cr in Liberal Studies.

(2) Students who complete their culinary certificate before completing CHEM 101 and 102 are also required to take FDNT 212.

(3) Completion of a culinary certificate is required for this degree.

(4) Because the culinary certificate includes considerable additional preparation in foods, the 32cr include numerous hours of work that can be considered free electives.

Minor—Nutrition 18-19

Required Courses: 6
FDNT 212 Nutrition 3cr
FDNT 213 Life Cycle Nutrition 3cr

Controlled Electives: 12-13
Four additional courses from the following list. Other FDNT courses may be selected but must be pre-approved by the department chair. Must meet any course prerequisites. FDNT 150, 245, 355, 402, 410, 458, 470

Hospitality Management prepares students for professional management careers within the hospitality industry, a global service industry comprising diverse and exciting employment opportunities. Program graduates obtain general and specialized hospitality skill sets and knowledge in preparation for management employment in hotels, resorts, restaurants, clubs and beverage operations, theme parks, contract food services, special events, catering, cruise lines, and other travel and tourism venues and operations.

The program is accredited by the Accreditation Commission for Programs in Hospitality Administration.

Bachelor of Science—Hospitality Management

Liberal Studies: As outlined in Liberal Studies section with the following specifications:
Mathematics: MATH 217
Natural Science: Option II
Social Science: ECON 101 or 121 (1)
Liberal Studies Elective: 3cr, no course with HOSP prefix

Major: 57

Required Courses:
HOSP 101 Introduction to the Hospitality Industry 1cr
HOSP 150 Principles of Hospitality Management 3cr
HOSP 220 Food Service Operations 3cr
HOSP 256 Human Resources in the Hospitality Industry 3cr
HOSP 259 Hospitality Purchasing 3cr
HOSP 260 Hotel Operations Management 3cr
HOSP 265 Hospitality Cost Management 3cr
HOSP 310 Professional Development in the Hospitality Industry 3cr
HOSP 320 Hospitality Marketing 3cr
HOSP 330 Applications of Food Production and Service 4cr
HOSP 335 Legal Issues in Hospitality 3cr
HOSP 413 Restaurant Food Production and Service 4cr
HOSP 470 Hospitality Business Model 3cr
HOSP 393 Exploratory Hospitality Field Experience 3cr (3)
HOSP 494 Internship 3cr (3)

Controlled Electives: One 12cr concentration required: (4)

Hotel and Lodging Concentration: 12cr
HOSP 325 Hotel Sales 3cr
HOSP 372 Housekeeping and Facilities Management 3cr
HOSP 400 Hotel Revenue Management 3cr
One course of non-required HOSP prefix 3cr

Special Events/Tourism Management Concentration
HOSP 235 Tourism Management 3cr
HOSP 280 Special Event Management 3cr
HOSP 347 Meeting and Convention Management 3cr
One course of non-required HOSP prefix requirements: 3cr

Other Requirements: 9-11
ACCT 201 Accounting Principles I 3cr
FNLG XXX Foreign Languages 6-8cr

Free Electives: 9-11

Total Degree Requirements: 120

(1) ECON 121 is required for those students completing a Business Minor.

(2) Department-specified kitchen food preparation uniform, knife kit, and proof of ServSafe certification are required for major lab courses.

(3) Each student must complete a minimum of 120 hours in each of the two supervised internship experiences (HOSP 393 and 494). See department internship coordinator for detailed information.

(4) Each student must complete one 12cr concentration, prior to applying for graduation.

Hospitality Management Associate Degree

The Associate of Science in Hospitality Management prepares students for entry-level positions in the hospitality industry. The program is proposed to allow for provision via a hybrid model, involving face-to-face, Zoom,
and online course delivery. Coursework includes hospitality management theory, hospitality human resources management, hospitality cost controls, hospitality marketing, and hospitality legal issues. The Department of Hospitality Management is accredited by the Accreditation Commission for Programs in Hospitality Administration (ACPHA).

### Associate of Science— Hospitality Management

| Liberal Studies: As outlined in the Liberal Studies section with the following specifications: |
| Learning Skills: ENGL 101, MATH 101 or higher |
| Fine Arts |
| Humanities: HIST 196, 197 or 198; ENGL 121, Philosophy/Religious Studies: |
| Natural Science: Non Lab Science |
| Social Science: ECON 101 or 121 |

**Hospitality Core:**
- HOSP 101 Introduction to the Hospitality Industry 1 cr
- HOSP 130 Food Service Sanitation 1 cr
- HOSP 150 Principles of Hospitality Management 3 cr
- HOSP 220 Food Service Operations 3 cr
- HOSP 256 Human Resources in the Hospitality Industry 3 cr
- HOSP 259 Hospitality Purchasing 3 cr
- HOSP 260 Hotel Operations Management 3 cr
- HOSP 265 Hospitality Cost Management 3 cr
- HOSP 310 Professional Development in the Hospitality Industry 3 cr
- HOSP 320 Hospitality Marketing 3 cr
- HOSP 330 Applications of Food Production and Service 4 cr
- HOSP 335 Legal Issues in Hospitality 3 cr
- HOSP 393 Exploratory Hospitality Field Experience 3 cr

**Hospitality Management Minor**

A minor in Hospitality Management prepares students with fundamental knowledge in the management of hospitality operations. Hospitality industry specific management skills in the areas of employee development, purchasing, managing and critiquing food production systems pertinent to the hospitality industry are the focus of this minor.

### Minor—Hospitality Management

| Required Courses: |
| HOSP 130 Food Service Sanitation 1 cr |
| HOSP 150 Principles of Hospitality Management 3 cr |
| HOSP 256 Human Resources in the Hospitality Industry 3 cr |
| HOSP 259 Hospitality Purchasing 3 cr |
| HOSP 260 Hotel Operations Management 3 cr |
| HOSP 265 Hospitality Cost Management 3 cr |
| HOSP 310 Professional Development in the Hospitality Industry 3 cr |
| HOSP 320 Hospitality Marketing 3 cr |
| HOSP 330 Applications of Food Production and Service 4 cr |
| HOSP 335 Legal Issues in Hospitality 3 cr |
| HOSP 393 Exploratory Hospitality Field Experience 3 cr |

(1) Needs to be 300-level or higher.

### Hotel and Lodging Management Minor

The Hotel and Lodging Minor prepares students with industry specific skills required of today’s hotel professional. Students will learn how to lead front office operations, housekeeping and facilities management, industry standard pricing strategies, revenue management, the role of a hotel sales department, and how to lead with a focus on service management.

### Minor—Hotel and Lodging Management

| Required Courses: |
| HOSP 260 Hotel Operations Management 3 cr |
| HOSP 325 Hotel Sales 3 cr |
| HOSP 372 Housekeeping and Facilities Management 3 cr |
| HOSP 400 Hotel Revenue Management 3 cr |
| HOSP courses approved by department chair totaling at least 6 cr. |

### Restaurant and Food Service Minor

The Restaurant and Food Service Management Minor prepares students with the skills to be a successful food service manager. This minor prepares students to manage and operate a food production system by developing skills in food sanitation, food preparation skills, menu planning, front and back of the house operations, and responsible alcohol service.

### Minor—Restaurant and Food Service Management

| Required Courses: |
| HOSP 130 Food Service Sanitation 1 cr |
| HOSP 220 Food Service Operations 3 cr |
| HOSP 330 Applications of Food Production and Service 4 cr |
| HOSP 402 Beverage Management 3 cr |
| HOSP 403 Wine and Wine Service 3 cr |
| HOSP 413 Restaurant Food Production and Service 4 cr |

(1) Department-specified kitchen food preparation uniform and knife kit are required for lab courses.

(2) Students are required to show proof of approved safe food handling certification.

### Special Event/Tourism Management Minor

The Special Event/Tourism Management Minor introduces students to the planning, organizing, influencing, and controlling of special event functions and the social, cultural, environmental and economic processes linked to the tourism industry. This minor provides the option to select industry specific courses that meet their individual career goals in areas of professional wedding planning, fund-raising, catering, festivals, destination management, international tourism, and event management.

### Minor—Special Event/Tourism Management

| Required Courses: |
| HOSP 235 Tourism Management 3 cr |
| HOSP 280 Special Event Management 3 cr |
| HOSP 347 Meeting and Convention Management 3 cr |

Controlled Electives: 9

HOSP courses approved by department chair totaling at least 9 cr with at least 3 cr being 300 level or higher.

### Department of Human Development, Fashion, and Interior Design

Website: www.iup.edu/hdes

Karen M. Scarton, Chair

The Department of Human Development, Fashion, and Interior Design was created by the merging of the Family and Consumer Sciences Education and Consumer Services departments. The mission statement of the department is to empower individuals to support human and environmental needs, enabling them to perform professionally in a changing, diverse technological and global society.

The department is composed of majors that are interdisciplinary and share humanistic values. All majors have an applied research focus and stress critical thinking, professional judgment, decision making, and synthesis of information with direct focus on career paths.

The department offers academic programs leading to the bachelor of science degree with the following majors: human development and family science, fashion merchandising, and interior design. The K-12 Family and Consumer Sciences Education program leads to a bachelor of science in education. These majors prepare men and women for positions in business, the community, and education. The majors also prepare students for graduate study in the areas of interior design, housing, clothing, textiles, consumer economics, human service, child development, family studies, or education.

Faculty advisors work closely with students in planning and integrating the academic program to meet the students’ career goals and to supplement classroom experiences. Internships are available and encouraged so students can apply academic knowledge to actual situations. International study is also available to provide an enriching cultural experience.
Human Development and Family Science

The Human Development and Family Science program leads to a bachelor of science degree. Primary objectives of the program are to prepare professionals to work in, or supervise, human service agencies that serve children, youth, and/or families. The program also provides preparation for students who want to pursue graduate study in applied programs such as social work, counseling, or education.

Students who major in Human Development and Family Science must maintain a 2.0 major GPA to graduate from the program.

The CDFR minor, consisting of 18 credits, is for students who desire to work in programs that entail all aspects of child development and family relationships and administration in human service agencies at federal, state, and local levels, but who have their major coursework in a related field. The CDFR minor is appropriate for all majors who wish to pursue careers working with children and families. The minor includes two required courses and any combination of four additional courses, including at least one 400-level course, with a CDFR prefix from the list provided.

Bachelor of Science—Human Development and Family Science

Liberal Studies: As outlined in Liberal Studies section with the following specifications:
Mathematics: 3cr
Social Science: ANTH 110 or any global or multicultural social science course, PSYC 101, SOC 151 or 161

Liberal Studies Electives: 6cr, FCSE 315 and FDNT 145, no courses with CDFR prefix

Major:

Required Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDFR 218</td>
<td>Child Development</td>
<td>3cr</td>
</tr>
<tr>
<td>CDFR 224</td>
<td>Marriage and Family</td>
<td>3cr</td>
</tr>
<tr>
<td>CDFR 310</td>
<td>Childhood Observation and Assessment</td>
<td>3cr</td>
</tr>
<tr>
<td>CDFR 321</td>
<td>Preschool Education: Play and Developmentally Appropriate Practices</td>
<td>3cr</td>
</tr>
<tr>
<td>CDFR 323</td>
<td>Family Issues</td>
<td>3cr</td>
</tr>
<tr>
<td>CDFR 410</td>
<td>Infant and Toddler Development</td>
<td>3cr</td>
</tr>
<tr>
<td>CDFR 411</td>
<td>Family and Community</td>
<td>3cr</td>
</tr>
<tr>
<td>CDFR 425</td>
<td>Adolescence: Risk and Resiliency</td>
<td>3cr</td>
</tr>
<tr>
<td>CDFR 426</td>
<td>Techniques of Parent Education</td>
<td>3cr</td>
</tr>
<tr>
<td>CDFR 427</td>
<td>Administration of Human Service Programs</td>
<td>3cr</td>
</tr>
<tr>
<td>CDFR 428</td>
<td>Family Dynamics</td>
<td>3cr</td>
</tr>
<tr>
<td>CDFR 429</td>
<td>Teaching in Community Settings</td>
<td>3cr</td>
</tr>
<tr>
<td>One CDFR Elective course</td>
<td></td>
<td>3cr</td>
</tr>
<tr>
<td>SOC 428</td>
<td>Child Abuse</td>
<td>3cr</td>
</tr>
</tbody>
</table>

Other Requirements:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 202</td>
<td>Foundations of Child Health or or BIOL 150 Human Anatomy</td>
<td>3cr</td>
</tr>
<tr>
<td>4cr</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Free Electives: (1) 26-28

Three optional concentrations:

Early Intervention 18cr

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDFR 315, EDEX 111, 415, 460, KHSS 209, 370</td>
<td>15cr</td>
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</table>

Infant/Toddler Mental Health 15cr

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDFR 315, 420, 430, EDEX 111, 460</td>
<td>15cr</td>
<td></td>
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</table>

Youth and Families 15cr

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDFR 430 or 481, EDEX 460, FCSE 350, KHSS 417, PSYC 312</td>
<td>10cr</td>
<td></td>
</tr>
</tbody>
</table>

Total Degree Requirements: 120

(1) Students are encouraged to declare a minor or complete one of three concentrations or fulfill the requirements for National Council for Family Relations Certificate Family Life Educator certificate. An internship can be completed with any one of the above options.

(2) CDFR 420 can count as either a core course or as part of the concentration, but not in both places.

Minor—Child Development and Family Relations 18

Required Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDFR 218</td>
<td>Child Development</td>
<td>3cr</td>
</tr>
<tr>
<td>CDFR 224</td>
<td>Marriage and Family</td>
<td>3cr</td>
</tr>
<tr>
<td>Four courses from the following (at least one must be at the 400 level), meeting prerequisites:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CDFR 310</td>
<td>Childhood Observation and Assessment</td>
<td>3cr</td>
</tr>
<tr>
<td>CDFR 315</td>
<td>Introduction to Early Intervention</td>
<td>3cr</td>
</tr>
<tr>
<td>CDFR 321</td>
<td>Preschool Education: Play and Developmentally Appropriate Practices</td>
<td>3cr</td>
</tr>
<tr>
<td>CDFR 322</td>
<td>Early Care and Education</td>
<td>3cr</td>
</tr>
<tr>
<td>CDFR 323</td>
<td>Family Issues</td>
<td>3cr</td>
</tr>
<tr>
<td>CDFR 411</td>
<td>Family and Community</td>
<td>3cr</td>
</tr>
<tr>
<td>CDFR 425</td>
<td>Adolescence: Risk and Resiliency</td>
<td>3cr</td>
</tr>
<tr>
<td>CDFR 426</td>
<td>Techniques of Parent Education</td>
<td>3cr</td>
</tr>
<tr>
<td>CDFR 427</td>
<td>Administration of Human Service Programs</td>
<td>3cr</td>
</tr>
</tbody>
</table>

Family and Consumer Sciences Education

The K-12 Family and Consumer Sciences Education program prepares students for the teaching of family and consumer sciences-related subjects in the public schools. Course work is required in all areas of family and consumer services, including child development and family relations, consumer economics, clothing, foods, and interior design. Professional education courses also are required.

Bachelor of Science in Education—K-12 Family and Consumer Sciences Education (*)

Liberal Studies: As outlined in Liberal Studies section with the following specifications:
Mathematics: MATH 151
Natural Science: Option II, BIOL 104 recommended, or CHEM 101-102 or CHEM 111-112
Social Science: PSYC 101, SOC 151 or 161, ANTH 110 or any global or multicultural social science

Liberal Studies Electives: 6cr, CDFR 218, MATH 152, no courses with FCSE prefix

College: 34

Preprofessional Education Sequence:

ACE 103 Digital Instructional Technology 3cr
EDSP 102 Educational Psychology 3cr

Professional Education Sequence:

EDEX 301 Education of Students with Disabilities in Inclusive Secondary Settings 2cr
EDEX 323 Instruction of English Language to Special Needs Learners 2cr
EDSP 477 Assessment of Student Learning: Design and Interpretation of Educational Measures 3cr
EDUC 242 Pre-student Teaching Clinical Experience I 1cr
EDUC 342 Pre-student Teaching Clinical Experience II 1cr
EDUC 441 Student Teaching 12cr
EDUC 442 School Law 1cr
FCSE 350 Teaching Family Life Education 3cr
FCSE 450 Teaching Vocational and Family 3cr
Consumer Science Education 3cr

Major: 28

Required Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDFR 224</td>
<td>Marriage and Family</td>
<td>3cr</td>
</tr>
<tr>
<td>CDFR 321</td>
<td>Preschool Education: Play and Developmentally Appropriate Practices</td>
<td>3cr</td>
</tr>
<tr>
<td>CDFR 429</td>
<td>Teaching in Community Settings</td>
<td>3cr</td>
</tr>
<tr>
<td>FCSE 315</td>
<td>Consumer Economics and Family Finance</td>
<td>3cr</td>
</tr>
<tr>
<td>FDNT 150</td>
<td>Foods</td>
<td>3cr</td>
</tr>
<tr>
<td>FDNT 151</td>
<td>Foods Laboratory</td>
<td>1cr</td>
</tr>
<tr>
<td>FDNT 212</td>
<td>Nutrition</td>
<td>3cr</td>
</tr>
<tr>
<td>FSMR 112</td>
<td>Fundamentals of Clothing Construction</td>
<td>3cr</td>
</tr>
<tr>
<td>FSMR 215</td>
<td>Textiles</td>
<td>3cr</td>
</tr>
<tr>
<td>INDS 105</td>
<td>Introduction to Interior Design</td>
<td>3cr</td>
</tr>
</tbody>
</table>
Free Electives: 11
Total Degree Requirements: 120

(*) See requirements leading to teacher certification, titled “3-Step Process for Teacher Education,” in the College of Education and Communications section of this catalog.

(#) See advisory paragraph “Timely Completion of Degree Requirements” in the section on Requirements for Graduation.

<table>
<thead>
<tr>
<th>Minor-Family and Consumer Science</th>
<th>18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Courses:</td>
<td></td>
</tr>
<tr>
<td>CDFR 218 Child Development</td>
<td>3cr</td>
</tr>
<tr>
<td>CDFR 224 Marriage and Family</td>
<td>3cr</td>
</tr>
<tr>
<td>FCSE 315 Consumer Economics and Family Finance</td>
<td>3cr</td>
</tr>
<tr>
<td>FSMR 112 Fundamentals of Clothing Construction or 180 Introduction to Fashion</td>
<td>3cr</td>
</tr>
<tr>
<td>INDS 105 Introduction to Interior Design</td>
<td>3cr</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fashion Merchandising</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Fashion Merchandising program provides course emphasis in clothing and human behavior, apparel production and analysis, textiles and quality control, apparel distribution, merchandising and promotion, global diversity, historic textiles and apparel, color and aesthetics, and apparel construction. Communications, problem solving, group project organization, professional presentation, and analytical and critical thinking skills are incorporated in course content. The Eberly College of Business and Information Technology complements this major by providing study in one of three options: business administration, marketing, and small business management. A cooperative program between IUP and the Fashion Institute of Technology in New York City allows students to study either Fashion or Accessories Design.</td>
</tr>
<tr>
<td>Graduates of this program are being prepared for entry-level positions such as a manufacturer’s sales representative, production assistant, ready-to-wear quality control analyst, textile testing laboratory technician, management trainee leading to position of store manager, executive/merchandising trainee leading toward position of buyer/merchandise manager, museum curator assistant, personal color consultant, fashion entrepreneur, and personalized shopping specialist for an upscale retail firm.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bachelor of Science—Fashion Merchandising</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liberal Studies: As outlined in Liberal Studies section with the following specifications:</td>
</tr>
<tr>
<td>Mathematics: MATH 105 or 217 (1)</td>
</tr>
<tr>
<td>Social Science: ECON 121, PSYC 101, GEOG 104 or ANTH 110 or 211</td>
</tr>
<tr>
<td>Liberal Studies Electives: 6cr, COSC/IFMG 101 or IFMG 110, ECON 122, no course with F SMR prefix</td>
</tr>
<tr>
<td>Major: 30</td>
</tr>
<tr>
<td>Required Courses:</td>
</tr>
<tr>
<td>F SMR 112 Fundamentals of Clothing Construction</td>
</tr>
<tr>
<td>F SMR 180 Introduction to Fashion</td>
</tr>
<tr>
<td>F SMR 215 Textiles</td>
</tr>
<tr>
<td>F SMR 280 Introduction to Apparel Buying</td>
</tr>
<tr>
<td>F SMR 357 Global Issues in Textiles and Apparel</td>
</tr>
<tr>
<td>F SMR 380 Applications in Apparel Buying</td>
</tr>
<tr>
<td>F SMR 385 Ready-to-Wear Analysis</td>
</tr>
<tr>
<td>F SMR 434 Quality Control in Textiles</td>
</tr>
<tr>
<td>F SMR 456 Historic Costume</td>
</tr>
<tr>
<td>F SMR 480 Professional Development in the Fashion Industry</td>
</tr>
<tr>
<td>Controlled Electives: Three courses from the following: 9</td>
</tr>
<tr>
<td>F SMR 158, 212, 252, 258, 262, 281, 303, 468, 481, 482</td>
</tr>
<tr>
<td>Additional Requirements: 21-24</td>
</tr>
<tr>
<td>Required Courses:</td>
</tr>
<tr>
<td>Complete courses in one of the following options:</td>
</tr>
<tr>
<td>Option 1: Business Administration Minor (24cr)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bachelor of Science—Interior Design</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liberal Studies: As outlined in Liberal Studies section with the following specifications:</td>
</tr>
<tr>
<td>Fine Arts: ARHI 205 recommended</td>
</tr>
<tr>
<td>Mathematics: MATH 101 or higher</td>
</tr>
<tr>
<td>Natural Science: Option I: SCI 105 and SCI 107/117—or- Option II: SCI 105 and SCI 107</td>
</tr>
<tr>
<td>Social Science: PSYC 101, SOC 151 or 161, Global and Multicultural Awareness course</td>
</tr>
<tr>
<td>Liberal Studies Electives: 6cr, ARHI 207, ECON 122, no courses with INDS prefix</td>
</tr>
</tbody>
</table>
Total Degree Requirements: 54

Major:

Required Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>INDS 105</td>
<td>Introduction to Interior Design</td>
<td>3cr</td>
</tr>
<tr>
<td>INDS 110</td>
<td>Color and Light</td>
<td>3cr</td>
</tr>
<tr>
<td>INDS 118</td>
<td>Interior Design Graphics</td>
<td>3cr</td>
</tr>
<tr>
<td>INDS 210</td>
<td>Human Factors in Interior Design</td>
<td>3cr</td>
</tr>
<tr>
<td>INDS 218</td>
<td>Computer Technology for Interior Design</td>
<td>3cr</td>
</tr>
<tr>
<td>INDS 219</td>
<td>Kitchen and Bath Design</td>
<td>3cr</td>
</tr>
<tr>
<td>INDS 230</td>
<td>Presentation for Interior Design</td>
<td>3cr</td>
</tr>
<tr>
<td>INDS 240</td>
<td>Three-Dimensional Design for Interior Design</td>
<td>3cr</td>
</tr>
<tr>
<td>INDS 313</td>
<td>Building Systems I: Materials and Finishes</td>
<td>3cr</td>
</tr>
<tr>
<td>INDS 315</td>
<td>Residential Design Studio</td>
<td>3cr</td>
</tr>
<tr>
<td>INDS 323</td>
<td>Building Systems II: Mechanicals</td>
<td>3cr</td>
</tr>
<tr>
<td>INDS 370</td>
<td>History of Interior Design and Architecture I</td>
<td>3cr</td>
</tr>
<tr>
<td>INDS 380</td>
<td>History of Interior Design and Architecture II</td>
<td>3cr</td>
</tr>
<tr>
<td>INDS 405</td>
<td>Interior Design Professional Practice</td>
<td>3cr</td>
</tr>
<tr>
<td>INDS 460</td>
<td>Portfolio</td>
<td>3cr</td>
</tr>
<tr>
<td>INDS 464</td>
<td>Commercial Design Studio I</td>
<td>3cr</td>
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<tr>
<td>INDS 465</td>
<td>Commercial Design Studio II</td>
<td>3cr</td>
</tr>
<tr>
<td>INDS 470</td>
<td>Interior Design Capstone</td>
<td>3cr</td>
</tr>
</tbody>
</table>

Outside Concentration:

Business: BCOM 321, MKTG 320 6cr
Art: ART 114; two courses from the following: ART 213, 214, 215, 216, 218, COMM 271, 371, 471, THTR 116, 120, 221, 320, 321, 489 9cr

Free Electives: (1) 3-5
Total Degree Requirements: 120

(1) Students are encouraged to complete an internship.

Department of Kinesiology, Health, and Sport Science

Elaine H. Blair, Chair

The Department of Kinesiology, Health, and Sport Science provides the following services:
1. Instruction in health and wellness courses as part of the university’s Liberal Studies requirement
2. Instruction in health and physical education courses as physical education course electives
3. An undergraduate program in health and physical education that leads to the bachelor of science in education degree with three programs of study: Teacher Education with potential to earn certification to teach in the Commonwealth of Pennsylvania, Community Health Education, and Recreation and Leisure Studies.
4. Bachelor of science program in physical education and sport, which includes programs in exercise science, pre-athletic training, and sport administration
5. Bachelor of science degree program in athletic training
6. Certification program in driver education

Required Program—Liberal Studies

The department, through its Health and Wellness course in the Liberal Studies program, seeks to enhance the overall well-being of students through instruction planned to promote and maintain desirable levels of physical, mental, emotional, and social well-being. Self-responsibility in the following dimensions of wellness is emphasized: nutritional awareness, stress awareness and management, exercise and fitness, substance use and abuse, and sexually transmitted diseases/AIDS. The importance of reducing risk factors for chronic degenerative disease and managing lifestyle factors for promotion of health is presented with implications for both the present and future. Information is provided during class lectures and enhanced by a variety of practical learning experiences that give students opportunities for self-assessment and personal application of the subject matter.

The university’s Liberal Studies requirements require that each student successfully complete KHSS 143 or its alternates, FDNT 143 or NURS 143. Students may also elect to take 4 credits of the ROTC program (MLSC 101-102) as an alternate to the wellness courses. Activity courses will continue to be offered, although they are no longer required. It is encouraged and recommended that students choose these courses as elective credits.

Physical Education and Sport

The bachelor of science degree program in physical education and sport (PESP) provides greater emphasis on sport subject matter/content and less on pedagogy. Students who select this degree program generally apply their knowledge in the areas of exercise science, community and corporate fitness, cardiac rehabilitation, sport industry management, and/or executive fitness programming. The PESP degree program is a non-teacher certification program. Students pursuing this degree may be required to purchase a personal liability insurance policy and obtain certain clearances before beginning the preprofessional experience, the internship, or any other field experience on or off campus.

Four specialty programs of study have been developed for the degree program in PESP. These programs consist of (1) Physical Education and Sport, (2) Physical Education and Sport—Exercise Science, (3) Physical Education and Sport—Pre-Athletic Training and (4) Physical Education and Sport—Sports Administration. These programs provide students with an innovative, relevant, and challenging curriculum, and at the same time, encourage the promotion of interdisciplinary work. Course content is focused toward specific professions, as well as toward different national credentialing possibilities. Student internships and preprofessional experiences can be more appropriately focused to enhance opportunities for postgraduate employment. Furthermore, these programs provide emphasis in specific subject content areas and teach skills necessary for students to assume leadership roles in careers related to the health fitness industry as well as sport science industry.

Exercise Science

IUP’s Exercise Science program is accredited by the Committee on Accreditation for the Exercise Sciences under the auspices of the Commission on Accreditation of Allied Health Education Programs. This program provides students with the knowledge, skills, and abilities to seek employment in private and commercial fitness clubs, medical fitness facilities, sport-specific and conditioning facilities, and clinical settings such as cardiac and pulmonary rehabilitation programs. This program has an academic core, specialty classes in exercise assessment, programming, and prescription, and opportunities for work-site experience.

While students may select Exercise Science as one of several tracks in the Kinesiology, Health, and Sport Science Department, students must demonstrate above-average academic performance by maintaining programmatic standards including (1) minimum 2.5 cumulative GPA for transfer students outside and within IUP; (2) a minimum of a "C" grade in major/core exercise science classes, including KHSS 285, 286, 343, 347, 375, 410, 411, 414, 492, and 493; and (3) before graduation, successful completion of an NCCA (National Commission for Certifying Agencies) approved health and fitness certification. Student transcripts will be reviewed each semester by the individual academic advisor and reported to the Exercise Science program coordinator for compliance with the academic requirements. Specific work-site experiences may be contingent upon students’ obtaining student liability insurance and selected health clearances such as physical, TB, and drug screening. Purchase of small equipment such as stethoscopes and digital heart rate monitors will be required.

Pre-Athletic Training

The Pre-Athletic Training Track prepares students for admission into a professional-level masters degree program in Athletic Training. Accelerated program progression allows students who meet eligibility requirements to apply for early admission into IUP’s Master of Science program in Athletic Training program. Students will work closely with an advisor to ascertain the likelihood of early admission into graduate school and will be advised to switch into another PESP Track if appropriate. The first four semesters of the Pre-Athletic Training Track align closely with the Exercise Science Track and allows for seamless transition into Exercise Science if early admission requirements are not likely to be met by the end of the sixth semester. The masters degree in athletic training will be implemented...
beginning Summer 2020.

**Sport Administration**

This program prepares students to use a variety of skills to function in a management capacity within the sport industry. Graduates of this program can seek employment in such areas as school and college athletic departments, coaching, community recreation organizations, minor and major league sports franchises, commercial sport facilities, and golf courses, as well as other athletic and sports-related industries. Students acquire management skills that can be used in multiple career tracks. A minor that will enhance their career objectives is encouraged.

**Health and Physical Education**

The Bachelor of Science in Education–Health and Physical Education provides emphasis on pedagogical content and application. This program prepares students with the knowledge and experience to instruct in various learning environments. Three specialty programs of study have been developed for this degree program, including the K-12 Teacher Education Certification Track and two non-teacher certification tracks, Community Health Education and Recreation and Leisure Studies. These programs provide students with the theory, strategy, and application necessary to work with individuals in various instructional settings. Each program provides an interdisciplinary experience that prepares students for specific career paths as well as multiple credentialing options.

**K-12 Teacher Education**

The Health and Physical Education Teacher Education program is accredited by the National Council for Accreditation of Teacher Education. Requirements for the bachelor of science in education degree program in health and physical education include the university’s Liberal Studies requirements, Professional Education requirements, and the Health and Physical Education core requirements. Upon completion of the degree program and successfully passing the Praxis exam, the student is qualified for an Instructional I Certificate in Health and Physical Education, issued by the Pennsylvania Department of Education in Harrisburg. This certificate is valid for teaching health and physical education in grades K-12 for three years in the public schools of Pennsylvania. All students seeking Pennsylvania certification must follow the 3-Step Process described in the section “Admission to Teacher Education and Certification” found in the College of Education and Communications section of this catalog.

**Community Health Education (non-teacher certification)**

This program of study focuses on health promotion and disease prevention through community educational services. This track prepares individuals to develop trainings and implement curriculum focused on better health and student progress is supervised by the academic advisor.

**Community Health Minor**

The Community Health minor will help prepare students who desire to work in programs that communicate and advocate for health and health education services. This minor would be of interest to sociology, child development and family relations, food and nutrition, and allied health majors who are interested in working with targeted populations on making healthy behavior changes through planned instruction and outreach.

**Exercise Science Minor**

The minor in Exercise Science provides students who have an interest in fitness with knowledge to educate and skills to lead exercise for individuals who wish to achieve their personal fitness goals. At the completion of the minor, students will have the knowledge and skills to perform basic fitness assessments and provide individual/small group exercise training. Students will possess the knowledge, skills and abilities to take a variety of national certification examinations at the personal trainer level.

**Sport Management Minor**

This minor is recommended for students majoring in related disciplines such as exercise science, health and physical education, athletic training, accounting, communications media, economics, finance, human resource management, management, and marketing and for students who have a personal interest in sport management. It provides students with the necessary skills to work in management within the sport industry.

**Athletic Coaching Certificate**

This certificate is recommended for students majoring in disciplines such as exercise science, health and physical education, athletic training, and education and for students who have a personal interest in coaching as a profession. It provides students with the necessary skills to work in the athletic coaching industry. Students will have a chance to earn a variety of certifications, including ASEP Coaching Certification, Certified Disability Sport Specialist, Certified Special Olympics Coach.

**Driver Education**

Candidates for the driver education certification must possess, or be a candidate for, a valid Pennsylvania certificate in any area of certification. A student must currently complete the following four courses: KHSS 251, 252, 353, and 354. Students must request the certificate in driver education when they apply for graduation. For students who have already graduated, contact the Office of the Dean, College of Education and Communications, for correct procedures.

**Health and Physical Education Core**

The Health and Physical Education curriculum identifies a required core of studies that emphasizes a body of knowledge relevant to the study of professional health and physical education, as well as the study of physical education and sport. Courses contained in the core are those that are intended to enable students to identify and solve problems by applying relevant knowledge and also to engage in self-directed learning.

Candidates for degree programs in health and physical education must demonstrate acceptable cognitive and psychomotor qualifications as well as desirable character and personality traits. The professional programs seek to foster those qualities of individual character and competence that are inherent in personal and professional maturity. Specific competencies and curriculum requirements are defined within each degree-specific program, and student progress is supervised by the academic advisor.

**Bachelor of Science—Physical Education and Sport (*)**

Liberal Studies: As outlined in Liberal Studies section with the
Bachelor of Science—Physical Education and Sport Exercise Science

Major:

Core Requirements:

- KHSS 135 Careers in Kinesiology, Health, and Sport 1cr
- KHSS 175 Prevention and Care of Injuries to the Physically Active 2-3cr
- KHSS 209 Motor Behavior 3cr
- KHSS 221 Human Structure and Function 3cr
- KHSS 256 Applied Human Structure and Conditioning 3cr
- BIOL 150 Human Anatomy 3-4cr
- KHSS 341 Evaluation in Health and Physical Education 3cr
- KHSS 344 Adapted Physical Activity and Sport 3cr
- KHSS 375 Physiological Basis of Strength Training 3cr
- KHSS 221 Human Structure and Function 3cr
- KHSS 286 Personal Training Practicum 3cr
- KHSS 285 Group/Individual Exercise Leadership 3cr
- KHSS 441 Psychosocial Implications for Health and Physical Education 3cr
- KHSS 493 Internship 3cr

Professional Requirements:

- Content Area 1: Introduction to Nutrition 3cr
- KHSN 261 Water Safety Instructor 3cr
- KHSN 263 Aquatics 1cr
- KHSN 285 Group/Individual Exercise Leadership 3cr
- KHSN 286 Personal Training Practicum 3cr
- KHSN 315 Biomechanics 3cr
- KHSN 343 Physiology of Exercise 3cr
- KHSN 375 Physiological Basis of Strength Training 3cr

- Content Area 2: Introduction to Nutrition 3cr
- KHSN 286 Personal Training Practicum 3cr
- KHSN 315 Biomechanics 3cr
- KHSN 343 Physiology of Exercise 3cr
- KHSN 345 Survey of Orthopedic Injuries in Sport and Exercise 3cr
- KHSN 346 Preventive and Acute Care Skills in Athletic Training 3cr
- KHSN 375 Physiological Basis of Strength Training and Conditioning 3cr

- Content Area 3: Digital Instructional Technology 3cr
- EDSP 102 Educational Psychology 3cr
- KHSN 213 Recreational Sports and Lifetime Activities 3cr
- KHSN 216 Instruction of Fundamental Movement Skills 3cr
- KHSN 218 Instruction of Tactical Skills and Fitness 3cr
- KHSN 318 Preprofessional Experience I 3cr

- Content Area 4: Aquatic Facilities Management 3cr
- KHSN 292 Introduction to Sport Management 3cr
- KHSN 320 Managing Facilities and Events in Sports 3cr
- KHSN 335 Athletic Coaching 3cr
- KHSN 445 Business Practices in Sport 3cr
- KHSN 460 Law and Issues in Managing Sport 3cr

Department Electives:

- 15-18 credits

Free Electives:

- 15-23 credits

Total Degree Requirements:

- 120 credits

(*) Admission to this program is by permission of advisor only.
Pre-Athletic Training Requirements: 28
BIOL 150 Human Anatomy 4cr
BIOL 200 Medical Terminology 2cr
BIOL 240 Human Physiology 4cr
CHEM 101 College Chemistry I 4cr
KHSS 286 Strength/Personal Training Practicum 3cr
KHSS 315 Biomechanics 3cr
KHSS 347 Physiology of Exercise Laboratory 1cr
KHSS 375 Physiological Basis of Strength Training and Conditioning 3cr
PHYS 111 Physics I Lecture or
PHYS 151 Medical Physics Lecture 3cr
PHYS 121 Physics I Lab or
PHYS 161 Medical Physics Lab 1cr
Free Electives: (1) 27
Total Degree Requirements: 120

(1) Some elective credits can be used towards the MS degree program in Athletic Training if eligible for early admission.

Bachelor of Science—Physical Education and Sport/Sport Administration

Liberal Studies: As outlined in Liberal Studies section with the following specifications:
Mathematics: MATH 217
Natural Science: Option I—BIL 104 and one 4cr laboratory course
Social Science: ECON 121, PSYC 101, Global and Multicultural Awareness course
Dimensions of Wellness: KHSS 143 recommended or FDNT/NURS 143
Liberal Studies Electives: 6cr, COSC/IFMG 101, ECON 122, no course with KHSS prefix

Major: 15
Core Requirements:
KHSS 135 Careers in Kinesiology, Health, and Sport 1cr
KHSS 175 Prevention and Care of Injuries to the Physically Active 2cr
KHSS 209 Motor Behavior 3cr
KHSS 225 Social Issues in Sports 3cr
KHSS 341 Evaluation in Health and Physical Education 3cr
KHSS 344 Adapted Physical Activity and Sport 3cr
-or- KHSS 437 Coaching Disability Sport 3cr
Sport Administration Requirements: 45
ACCT 201 Accounting Principles I 3cr
KHSS 256 Applied Human Structure and Conditioning 3cr
KHSS 280 Aquatic Facilities Management 3cr
KHSS 292 Introduction to Sport Management 3cr
KHSS 319 Field Practicum I 3cr
KHSS 320 Managing Facilities and Events in Sports 3cr
KHSS 351 Managing Budgets and Technology in Sport 3cr
KHSS 445 Business Practices in Sport 3cr
KHSS 460 Law and Issues in Managing Sport 3cr
KHSS 465 Sport Management Capstone 3cr
KHSS 493 Internship 3cr
MGMT 310 Principles of Management 3cr
MKTG 320 Principles of Marketing 3cr
Major Electives: Two courses from the following: 6cr
ACCT 202, BCOM 321, COMM 150, 251, ECON 239, FIN 310, HOSP 235, 280, 347, KHSS 315, 333, 335, 343, 375, 412, 441, MGMT 275, 300, MKTG 321
Free Electives: 13
Total Degree Requirements: 120

Bachelor of Science in Education—Health and Physical Education/K-12 Teacher Education (*)

Liberal Studies: As outlined in Liberal Studies section with the following specifications:
Mathematics: MATH 101 or higher (must be approved as Liberal Studies Mathematics courses)
Natural Science: BIL 104 and 106 or CHEM 101 and 102
Social Science: PSYC 101
Liberal Studies Elective: 3cr, MATH 217, no course with KHSS prefix

Major: (1)
Required Courses:
KHSS 135 Careers in Kinesiology, Health, and Sport 1cr
KHSS 175 Prevention and Care of Injuries to the Physically Active 2cr
KHSS 209 Motor Behavior 3cr
KHSS 221 Human Structure and Function 3cr
KHSS 261 Water Safety Instructor 1cr
KHSS 315 Biomechanics 3cr
KHSS 341 Evaluation in Health and Physical Education 3cr
KHSS 343 Physiology of Exercise 3cr
KHSS 441 Psychosocial Implications for Health and Physical Education 3cr
KHSS 442 Senior Seminar: Professional Development in Health, Physical Education, and Sport 3cr

Professional Requirements:
Health and Physical Education Requirements:
KHSS 213 Recreational Sports and Lifetime Activities 3cr
KHSS 216 Instruction of Fundamental Movement Skills 3cr
KHSS 218 Instruction of Tactical Skills and Fitness Concepts 3cr
KHSS 316 Instruction of Child Health Concepts 3cr
KHSS 318 Preprofessional Experience I 3cr
KHSS 325 School and Community Health 3cr
KHSS 370 Adapted Health and Physical Education 3cr
KHSS 417 Contemporary Issues in School and Community Health 3cr
KHSS 426 Health Science Instruction 3cr

College:
Preprofessional Education Requirements:
ACE 103 Digital Instructional Technology 3cr
EDEX 323 Instruction of English Language Learners with Special Needs 2cr
EDSP 102 Educational Psychology 3cr
Professional Education Requirements:
EDUC 242 Pre-student Teaching Clinical Experience I 1cr
EDUC 342 Pre-student Teaching Clinical Experience II 1cr
EDUC 421 Student Teaching 6cr
EDUC 441 Student Teaching 6cr
EDUC 442 School Law 1cr
Free Electives: 1
Total Degree Requirements: 120

(*) See requirements leading to teacher certification, titled “3-Step Process for Teacher Education,” in the College of Education and Communications section of this catalog.
(**) See advisory paragraph “Timely Completion of Degree Requirements” in the section on Requirements for Graduation.
(1) Students are required to obtain and keep CPR instructor certification and water safety instructor certification current before student teaching and through graduation.

Bachelor of Science in Education—Health and Physical Education/Community Health Education

Liberal Studies: As outlined in Liberal Studies section with the following specifications:
Mathematics: MATH 101 or higher (must be approved as Liberal Studies Mathematics courses)
Natural Science: BIOL 104 and 106 or CHEM 101 and 102
Social Science: PSYC 101

Liberal Studies Elective: 3cr, MATH 217

Major:

**Required Courses:**

- KHSS 135 Careers in Kinesiology, Health, and Sport 1cr
- KHSS 175 Prevention and Care of Injuries to the Physically Active 2cr
- KHSS 209 Motor Behavior 3cr
- KHSS 256 Applied Human Structure and Conditioning 3cr
- KHSS 341 Evaluation in Health and Physical Education 3cr
- KHSS 441 Psychosocial Implications for Health and Physical Education 3cr
- KHSS 442 Senior Seminar: Professional Development in Health, Physical Education, and Sport 3cr

**Professional Requirements:**

**Community Health Education Requirements:**

- EDSP 102 Educational Psychology 3cr
- KHSS 316 Instruction of Child Health Concepts 3cr
- KHSS 318 Preprofessional Experience I 3cr
- KHSS 325 School and Community Health 3cr
- KHSS 370 Adapted Health and Physical Education 3cr
- KHSS 417 Contemporary Issues in School and Community Health 3cr
- KHSS 420 Health Ed. and Promotion at the Workplace 3cr
- KHSS 426 Health Science Instruction 3cr
- KHSS 493 Internship 6cr

**Controlled Electives:**

(Must choose one emphasis area from A-G)

**A. Communications (9cr)**

- COMM 101 Communications Media in American Society 3cr
- COMM 205 Making Presentations with Media 3cr
- COMM 230 Global Media and Communication 3cr

**B. Nutrition (12cr)**

- FDNT 212 Nutrition 3cr
- FDNT 213 Life Cycle Nutrition 3cr
- FDNT 245 Sports Nutrition 3cr
- FDNT 402 Community Nutrition 3cr

**C. Physical Activity (12cr)**

- FDNT 245 Sports Nutrition 3cr
- KHSS 285 Group/Individual Exercise Leadership 3cr
- KHSS 350 Health Aspects of Aging 3cr
- KHSS 413 Physical Activity and Aging 3cr

**D. Aging Populations (12cr)**

- KHSS 350 Health Aspects of Aging 3cr
- KHSS 413 Physical Activity and Aging 3cr
- PSYC 312 Adult Development and Aging 3cr
- SOC 357 Sociology of Aging and the Life-course 3cr

**E. Human Service (12cr)**

- PSYC 330 Social Psychology 3cr
- SOC 320 Sociological Theory 3cr
- SOC 336 Sociology of the Family 3cr
- SOC 391 Foundations of Sociological Practice 3cr

**F. Women’s Studies (12cr)**

- PSYC 379 Psychology of Human Sexuality 3cr
- SOC 251 Sociology of Human Sexuality 3cr
- SOC 427 Social Perspectives on Intimate Partner Violence 3cr
- WGS 200 Introduction to Women’s and Gender Studies 3cr

**G. Child Studies (9cr)**

- SOC 231 Contemporary Social Problems 3cr
- SOC 333 Delinquency and Youth 3cr
- SOC 428 Child Abuse 3cr

**Free Electives:**

16-19

**Total Degree Requirements:**

120

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Bachelor of Science in Education—Health and Physical Education

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**Education/Recreation and Leisure Studies**

**Liberal Studies:** As outlined in Liberal Studies section with the following specifications:

**Mathematics:** MATH 101 or higher (must be approved as Liberal Studies Mathematics courses)

**Natural Science:** BIOL 104 and 106 or CHEM 101 and 102

**Social Science:** PSYC 101

**Liberal Studies Elective:** 3cr, MATH 217

Major:

**Required Courses:**

- KHSS 135 Careers in Kinesiology, Health, and Sport 1cr
- KHSS 175 Prevention and Care of Injuries to the Physically Active 2cr
- KHSS 209 Motor Behavior 3cr
- KHSS 221 Human Structure and Function 3cr
- KHSS 261 Water Safety Instruction 1cr
- KHSS 341 Evaluation in Health and Physical Education 3cr
- KHSS 343 Physiology of Exercise 3cr
- KHSS 441 Psychosocial Implications for Health and Physical Education 3cr
- KHSS 442 Senior Seminar: Professional Development in Health, Physical Education, and Sport 3cr

**Professional Requirements:**

**Recreation and Leisure Studies Requirements:**

- EDSP 102 Educational Psychology 3cr
- HOSP 115 Introduction to Tourism 3cr
- KHSS 213 Recreational Sports and Lifetime Activities 3cr
- KHSS 216 Instruction of Fundamental Movement Skills 3cr
- KHSS 218 Instruction of Tactical Skills and Fitness Concepts 3cr
- KHSS 318 Preprofessional Experience I 3cr
- KHSS 320 Managing Facilities and Events in Sports 3cr
- KHSS 370 Adapted Health and Physical Education 3cr
- KHSS 493 Internship 3cr

**Controlled Electives:**

Three courses from the following:

DANC 150 (3), 353, HOSP 343, KHSS 280, 292, 333 (1), 335, 413, 437 (1), 445

**Free Electives:**

18-20

**Total Degree Requirements:**

120

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**Minor—Community Health**

**Required Courses:**

- KHSS 325 School and Community Health 3cr
- KHSS 417 Contemporary Issues in School and Community Health 3cr
- KHSS 420 Health Education and Promotion at the Workplace 3cr

**Controlled Electives:** (1)

Three courses from the following:

FDNT 212, 402, HOSP 343, KHSS 341, 350, 450, SOC 231, 333, 336

(1) Only two courses with the same prefix may be used as electives.

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**Minor—Exercise Science**

**Required courses:** 12

- KHSS 221 Human Structure and Function (3) 3cr
- KHSS 285 Group/Individual Exercise Leadership 3cr
- KHSS 286 Personal Training Practicum 3cr
- KHSS 343 Physiology of Exercise 3cr

**Controlled Electives:**

6

Two courses from the following:

KHSS 375, 411, 413, 415

(1) Completion of the Exercise Science minor does not guarantee entry into the Exercise Science major. Students desiring transfer into the
Exercise Science major must have a minimum 2.5 overall GPA. 

(2) Students must attain a grade “C” or better in each of the courses. 

(3) Students must take KHSS 221 before any other class in the minor. 

BIOL 150 may be substituted.

### Minor—Sport Management

**Required Courses:**

- KHSS 292 Introduction to Sport Management 3cr
- KHSS 320 Managing Facilities and Events in Sport 3cr
- KHSS 445 Business Practices in Sport 3cr
- KHSS 460 Law and Issues in Managing Sport 3cr

**Controlled Electives:** 6

- Two courses from the following: ECON 239, KHSS 335, 351, 493

### Certificate—Athletic Coaching

**Required Courses:**

- KHSS 175 Prevention and Care of Injuries to the Physically Active (1) 2cr
- KHSS 209 Motor Behavior (1) 3cr
- KHSS 333 Psychology of Coaching (1) 3cr
- KHSS 335 Athletic Coaching (1) 3cr
- KHSS 437 Coaching Disability Sport (1) 3cr
- KHSS 493 Internship 3cr

**Controlled Elective:**

- One course from the following: KHSS 221, 256 (1), 292 (1)
(1) Courses have been designed as distance education courses.

### Driver Education

The four courses are offered that prepare students for the teaching driver education in both public and private settings, and also prepares students to take the Pennsylvania Department of Education certification exam (Pennsylvania Safety Driver Education Teacher Certification Assessment). A valid driver’s license is required to take KHSS 252 and 354.

- KHSS 251 Foundations of Safety and Emergency Health Care (1) 3cr
- KHSS 252 Introduction to the Driving Task 3cr
- KHSS 353 Driving Education Program Management 3cr
- KHSS 354 Application of Driver Education Instructional Modes 3cr

### Institute for Rural Health and Safety

**Website:** www.iup.edu/irhs  
**Email:** IHERS-SAFETY-PROGRAMS@iup.edu  
**Louis J. Pesci, Director**

The IUP Institute for Rural Health and Safety (IRHS) brings together university personnel from various disciplines and professional backgrounds to solve problems related to health and safety in rural areas. IRHS includes three centers, the Center for Transportation, the Center for Emergency Services Training, and the Center for Policy and Data Analysis.

### Center for Transportation

The Center for Transportation focuses on improving safety through injury prevention by offering teacher certification in safety/driver education, driver training programs, and by coordinating community programs and events that promote safe driving. Injury is the leading cause of death for persons age 1 to 44. Unintentional motor vehicle traffic crashes remain the leading cause of injury death for those age 5 to 24 and the second leading cause of injury death for those age 1 to 4 and 25 and older.

**Teacher certification in Safety/Driver Education** is the last program of its kind in Pennsylvania that certifies teachers and instructors to teach driver education. The program requires completion of four core courses through cooperative effort with the Department of Kinesiology, Health, and Sport Science.

From **Novice Driver Education** programs for beginning drivers to **Advanced Driver Training** programs in emergency driving techniques, including perceptual driving, the IRHS provides a cadre of courses, all designed to meet the needs of the student.

### Community Traffic Safety

Projects are Community Health Education projects that are federally funded and contracted with the Pennsylvania Department of Transportation’s Bureau of Maintenance and Operations. Originating at IUP in 1987, programs and trainings for corporations, schools, civic groups, law enforcement agencies, etc., include topics such as occupant protection, impaired driving, distracted driving, aggressive driving, safe driving near heavy trucks, motorcycles and other vulnerable road users, and safety while walking and bicycling, with emphasis on young drivers and mature drivers.

A secondary focus for the Center for Transportation is on health by reducing obesity and increasing physical activity. According to the National Institutes of Health, obesity and overweight are the second leading causes of preventable death in the US, behind only tobacco use. Center staff teach courses in active transportation planning, complete walkability assessments, and promote walk- and bike-friendly places to foster healthy communities in Pennsylvania.

### Center for Emergency Services Training

The Center for Emergency Services Training offers programs designed to meet the training needs of ambulance, fire, and police personnel in the areas of emergency medical services and rescue. Projects include emergency services training for first responders through a federal Health Resources and Services Administration grant to reduce incidences of morbidity and mortality related to opioid usage in rural areas, and for employees in industrial settings like power plants and coal mines. Two certifications available are Emergency Medical Technician and Paramedic.

**The Emergency Medical Technician** certification is a 150-hour program that requires three to four months to complete 10 patient contacts with an authorized emergency medical service agency or authorized hospital or clinic. Both traditional and hybrid courses are offered. Up to 4 transfer credits may be awarded to students with EMT certification.

**The Paramedic** 1,150-clock-hour program with 600 hours in the classroom, including 230 hours of interactive lecture and 370 lab hours. Also, a minimum of 550 hours are required in clinical and field settings, with a minimum of 250 hours at clinical sites, and a minimum of 100 hours during the Summative Capstone Field Internship. Up to 30 transfer credits may be awarded to students with Paramedic certification.

### Center for Policy and Data Analysis

The Center for Policy and Data Analysis focuses on research, surveys, and studies to support the mission of IRHS. Recent projects include an analysis of traffic crashes in Pennsylvania through a grant from the Center for Rural Pennsylvania.

### Department of Nursing and Allied Health Professions

**Website:** www.iup.edu/rn-alliedhealth  
**Theresa M. Gropelli, Chair**

The College of Health and Human Services offers a curriculum leading to the bachelor of science degree program in nursing. Students are admitted to the Nursing program as freshmen. Those with a previous degree may also be admitted. Upon completion of the program, the graduate is prepared to take the examination for licensure as a registered nurse in Pennsylvania and all other states. The program is accredited by the Commission on Collegiate Nursing Education.

The nursing curriculum has as its primary goal the development of professional nurse generalists who are liberally educated, clinically competent, and aware of their social responsibilities as health professionals. The program is designed to provide a broad background in liberal education, coupled with the specialized knowledge and skills required for professional nursing practice. Additionally, the curriculum prepares the nurse to practice
within the professional code of nursing ethics, to function effectively as a member of the health care team, and to utilize scientific principles in planning, implementing, and evaluating health care. The nursing curriculum emphasizes concepts in primary, secondary, and tertiary prevention of health problems.

The first two semesters are devoted mainly to Liberal Studies and science courses considered essential to the nursing major. Throughout the last six semesters, clinical experiences in patient care are provided in acute and long-term care facilities as well as community settings.

The bachelor of science degree program in nursing is offered for licensed practical nurses who are graduates of accredited, approved practical nursing programs and who have met IUP’s admission requirements. The track for licensed practical nurses provides an alternative curriculum accounting for prior work completed in a nursing program. Licensed practical nurse students will fulfill all requirements set by the university. The track is designed to prepare the practical nurse to function as a provider, designer, manager, and coordinator of care in a variety of health care settings.

Prior to graduation, Nursing and Licensed Practical Nurse Track majors must earn a minimum grade of “C” in all required NURS (NURS 211, 212, 213, 214, 236, 316, 330, 331, 332, 333, 336, 337, 412, 431, 432, 433, 434, 436, 437, 440, 450) and BIOL courses. Students earning a D in a NURS course may repeat the course as a prerequisite, corequisite or with permission of Chair. A grade of “D” in a NURS or BIOL course may hinder progression to the next level of required courses when mastery of the content is essential for success.

Detailed information is available in the department office regarding requirements such as health screening, liability insurance, legal clearance, and professional uniforms.

Change of major applications and criteria are available in the Nursing Department office. Changes of major are granted based on meeting the criteria and seat availability.

### Bachelor of Science—Nursing (*)

**Liberal Studies:** As outlined in Liberal Studies section with the following specifications:
- **Mathematics:** MATH 217
- **Natural Science:** CHEM 101-102 (CHEM 111/112 could fulfill with permission)
- **Social Science:** PSYC 101, SOC 151 or 161

**Liberal Studies Elective:** 3cr, PSYC 310, no courses with NURS prefix

#### Major:

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>52-55</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 211</td>
<td>Fundamentals I Clinical</td>
</tr>
<tr>
<td>NURS 212</td>
<td>Fundamentals I Theory</td>
</tr>
<tr>
<td>NURS 213</td>
<td>Fundamentals II Clinical</td>
</tr>
<tr>
<td>NURS 214</td>
<td>Health Assessment</td>
</tr>
<tr>
<td>NURS 236</td>
<td>Fundamentals II Theory</td>
</tr>
<tr>
<td>NURS 312</td>
<td>Professional Nursing</td>
</tr>
<tr>
<td>NURS 316</td>
<td>Evidence-Based Practice in Nursing</td>
</tr>
<tr>
<td>NURS 330</td>
<td>Care of the Child and Family</td>
</tr>
<tr>
<td>NURS 331</td>
<td>Care of the Child and Family Clinical</td>
</tr>
<tr>
<td>NURS 332</td>
<td>Maternal-Neonatal Health</td>
</tr>
<tr>
<td>NURS 333</td>
<td>Maternal-Neonatal Clinical</td>
</tr>
<tr>
<td>NURS 336</td>
<td>Adult Health I</td>
</tr>
<tr>
<td>NURS 337</td>
<td>Adult Health I Clinical</td>
</tr>
<tr>
<td>NURS 412</td>
<td>Nursing Management</td>
</tr>
<tr>
<td>NURS 431</td>
<td>Public/Community Nursing Clinical</td>
</tr>
<tr>
<td>NURS 432</td>
<td>Psychiatric/Mental Health</td>
</tr>
<tr>
<td>NURS 433</td>
<td>Psychiatric/Mental Health Clinical</td>
</tr>
<tr>
<td>NURS 434</td>
<td>Public/Community Nursing</td>
</tr>
<tr>
<td>NURS 436</td>
<td>Adult Health II</td>
</tr>
<tr>
<td>NURS 437</td>
<td>Adult Health II Clinical</td>
</tr>
<tr>
<td>NURS 440</td>
<td>Nursing Management Clinical</td>
</tr>
<tr>
<td>NURS 450</td>
<td>A Cognitive Approach to Clinical Problem</td>
</tr>
</tbody>
</table>

#### Other Requirements:

- **Solving (1)**: 3cr

#### Science Sequence:

- BIOL 150 | Human Anatomy | 4cr |
- BIOL 240 | Human Physiology | 4cr |
- BIOL 241 | Introductory Medical Microbiology | 4cr |
- FDNT 212 | Nutrition | 3cr |

#### Free Electives:

- 6-9

(*) The Pennsylvania State Board of Nursing requires two units of high school mathematics (one of which is algebra) for admission to the nursing major.

(1) Students who achieve a higher score than a specified minimum on a department-required standardized test(s) are exempt from NURS 450. These students would need 9cr of free electives.

(2) See advisory paragraph “Timely Completion of Degree Requirements” in the section on Requirements for Graduation.

### Bachelor of Science—Nursing/Licensed Practical Nurse Track (1)

**Liberal Studies:** As outlined in Liberal Studies section with the following specifications:

**Dimensions of Wellness:** Fulfilled by the major

**Mathematics:** MATH 217

**Natural Science:** CHEM 101-102 (CHEM 111/112 could fulfill with permission)

**Social Science:** PSYC 101, SOC 151 or 161

**Liberal Studies Electives:** 5cr, PSYC, no course with NURS prefix

#### Major:

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>50-53</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 214</td>
<td>Health Assessment</td>
</tr>
<tr>
<td>NURS 312</td>
<td>Professional Nursing</td>
</tr>
<tr>
<td>NURS 316</td>
<td>Evidence-Based Practice in Nursing</td>
</tr>
<tr>
<td>NURS 334</td>
<td>Transitions in Professional Nursing</td>
</tr>
<tr>
<td>NURS 412</td>
<td>Nursing Management</td>
</tr>
<tr>
<td>NURS 431</td>
<td>Public/Community Nursing Clinical</td>
</tr>
<tr>
<td>NURS 432</td>
<td>Psychiatric/Mental Health</td>
</tr>
<tr>
<td>NURS 433</td>
<td>Psychiatric/Mental Health Clinical</td>
</tr>
<tr>
<td>NURS 434</td>
<td>Public/Community Nursing</td>
</tr>
<tr>
<td>NURS 436</td>
<td>Adult Health II</td>
</tr>
<tr>
<td>NURS 437</td>
<td>Adult Health II Clinical</td>
</tr>
<tr>
<td>NURS 440</td>
<td>Nursing Management Clinical</td>
</tr>
<tr>
<td>NURS 450</td>
<td>A Cognitive Approach to Clinical Problem Solving (2)</td>
</tr>
<tr>
<td>NURS 493</td>
<td>Internship</td>
</tr>
<tr>
<td>NURS XXX</td>
<td>Advisor approved NURS elective</td>
</tr>
</tbody>
</table>

#### Adult Health:

| NURS 336 | Adult Health I | 4cr |
| NURS 337 | Adult Health Clinical I | 5cr |
| OR | Credits by Exam (3) and | 8cr |
| NURS 493 | Internship | 1cr |

#### Maternal Neonatal Health:

| NURS 330 | Care of the Child and Family | 2cr |
| NURS 331 | Care of the Child and Family Clinical | 2cr |
| NURS 332 | Maternal-Neonatal Health | 2cr |
| NURS 333 | Maternal-Neonatal Clinical | 2cr |
| OR | Credits by Exam (3) and | 7cr |
| NURS 493 | Internship | 1cr |

#### Other Requirements:

- **BIOL 150** | Human Anatomy | 4cr |
- **BIOL 240** | Human Physiology | 4cr |
- **BIOL 241** | Introductory Medical Microbiology | 4cr |
- **FDNT 212** | Nutrition | 3cr |
Free Electives: 9-12
Total Degree Requirements: 120

(1) The Pennsylvania State Board of Nursing requires four units of English, three units of social studies, two units of math (one of which is algebra), and two units of science in high school for admission to the nursing major.

(2) Students who achieve a higher score than a specified minimum on a department-required standardized test(s) are exempt from NURS 450. These students would need 12cr of free electives.

(3) Students have the option of earning up to 15cr via examination and taking NURS 493 (up to 2cr) or completing NURS 330, 331, 332, 333, 336, and 337 (17cr). Exam results must be received before students register for any 300- or 400-level nursing courses other than NURS 334.

Allied Health Professions Programs
Joyce A. Shanty, Coordinator

Respiratory Care
Alan Lantzy, MD, Medical Director

The bachelor of science degree program in respiratory care prepares the graduate for a career as a registered respiratory care practitioner. Respiratory care practitioners evaluate, treat, and care for people with breathing problems. They assist physicians in the evaluation and treatment of heart and lung disorders. Respiratory care practitioners are experts in the therapeutic use of medical gases, oxygen administration, pulmonary resuscitation, and artificial airways. They are employed in hospitals, extended care facilities, clinics, rehabilitation centers, physicians’ offices, private companies providing home care services, and municipal organizations.

The program is accredited by the Commission on Accreditation for Respiratory Care practitioners (ACR). The program consists of two academic years of preclinical study at the IUP Northpointe Regional Campus. Students are expected to earn a GPA of at least 2.25 in the required Natural Sciences and Mathematics courses and an overall GPA of at least 2.0 to be considered for admission into the clinical years in respiratory care. However, since admission to the clinical years is competitive, IUP cannot guarantee admission. Upon graduation, graduates are eligible for certification (CRT) and registration (RRT) in respiratory care. The granting of the degree is not contingent upon passing the examinations. Graduates are prepared for graduate degrees that may lead to careers in administration, education, and medicine.

The bachelor of science degree program in respiratory care is offered for certified respiratory therapists (CRTs) who are graduates of an accredited certificate or associate degree respiratory care program. CRT students may be awarded advanced standing (33 credits) based on prior academic work completed in a respiratory care program. Students fulfill degree requirements set by the university. This track is designed to prepare the CRT to function in an advanced practice role.

Detailed information is available in the department office regarding requirements such as health screening, liability insurance, legal clearance, and professional uniforms.

Change of major applications and criteria are available online through the IUP Department of Nursing and Allied Health Professions.

Bachelor of Science—Respiratory Care

Liberal Studies: As outlined in Liberal Studies section with the following specifications:
Mathematics: MATH 105 or higher level
Natural Science: CHEM 101-102
Social Science: PSYC 101, SOC 151 or 161, global and multicultural awareness course
Writing Intensive: not required
Liberal Studies Elective: 3cr, no courses with RESP prefix

Major: 56
Required Courses:

RESP 101 The Profession of Respiratory Care 1cr
RESP 326 Respiratory Care Clinical Practice I 3cr
RESP 327 Pharmacology 3cr
RESP 328 Applied Concepts in Respiratory Care 3cr
RESP 329 Respiratory Care Equipment 4cr
RESP 333 Respiratory Care Clinical Practice II 3cr
RESP 334 Respiratory Care Instrumentation and Application 4cr
RESP 335 Patient Care and Emergency Skills 4cr
RESP 336 Cardiopulmonary Evaluation and Clinical Correlation 4cr
RESP 425 Clinical Case Studies 3cr
RESP 426 Respiratory Care Clinical Practice III 4cr
RESP 429 Respiratory Care Leadership 3cr
RESP 430 Cardiopulmonary Diagnostics 3cr
RESP 432 Neonatal and Pediatric Respiratory Care 3cr
RESP 433 Respiratory Care Clinical Practice IV 4cr
RESP 435 Respiratory Care Across the Continuum 3cr
RESP 441 Respiratory Care Professional I 2cr
RESP 451 Respiratory Care Professional II 2cr

Free Electives: 20
Total Degree Requirements: 120

(1) Students in this track may be exempt from the 100- and 300-level courses in the Respiratory Care program and may receive 29cr via articulation.
(2) RESP 300- and 400-level courses are completed at IUP Northpointe Regional Campus.

Bachelor of Science—Respiratory Care/Certified Respiratory Therapist Track

Liberal Studies: As outlined in Liberal Studies section with the following specifications:
Mathematics: 3cr
Natural Science: CHEM 101-102
Social Science: PSYC 101, SOC 151 or 161, global and multicultural awareness course
Writing Intensive: not required
Liberal Studies Elective: 3cr, no courses with RESP prefix

Major: 56
RESP credits via articulation (1) 29cr
Required Courses: (2) 27cr
RESP 425 Clinical Case Studies 3cr
RESP 426 Respiratory Care Clinical Practice III 4cr
RESP 429 Respiratory Care Leadership 3cr
RESP 430 Cardiopulmonary Diagnostics 3cr
RESP 432 Neonatal and Pediatric Respiratory Care 3cr
RESP 433 Respiratory Care Clinical Practice IV 4cr
RESP 435 Respiratory Care Across the Continuum 3cr
RESP 441 Respiratory Care Professional I 2cr
RESP 451 Respiratory Care Professional II 2cr

Free Electives: 20
Total Degree Requirements: 120

(1) Students in this track may be exempt from the 100- and 300-level courses in the Respiratory Care program and may receive 29cr via articulation.
(2) RESP 300- and 400-level courses are completed at IUP Northpointe Regional Campus.

Medical Technology

Medical Technology encompasses the study of analytical and diagnostic procedures used in clinical laboratories and in medical research. Medical technologists (also known as clinical laboratory scientists) perform a variety...
of laboratory tests, upon which the physician depends for accurate diagnosis, prognosis, and proper treatment of the patient. The program is designed as a 3+1 with three years at IUP taking the required sciences and liberal studies courses and then one year of clinical experience at an IUP-approved affiliate program. All of the coursework at IUP is preparatory toward the final year and the requirements by the Medical Technology profession. At the end of their senior year, upon successful completion of the program at an articulated clinical affiliate accredited within the discipline, IUP will grant 32 credits that will be applied to the student’s transcript and the bachelor’s degree in Medical Technology will be conferred. The program also prepares the student for graduate and professional schools.

IUP maintains affiliations with accredited schools of medical technology/clinical laboratory science. To be competitive for clinical placement, the student must have a minimum overall GPA and math/science GPA of 2.8. Since admission to any hospital program is on a competitive basis, IUP cannot guarantee admission.

The following programs maintain agreements of affiliation with IUP: UPMC Altoona Regional Health System, Altoona; Conemaugh Memorial Medical Center, Johnstown; Pennsylvania General College of Health Sciences, Lancaster; the Reading Hospital School of Health Science, Reading; St. Christopher’s Hospital for Children, Philadelphia; St. Vincent Health Center, Erie; UPMC Susquehanna Health, Williamsport; UPMC Chautauqua WCA Hospital, Jamestown, New York; and Wellspan York Hospital, York.

Completion of academic studies at IUP and of one year of clinical experience qualifies the student to take a national certification examination. Successful results on this examination lead to certification as a professionally qualified medical technologist/clinical laboratory scientist.

### Bachelor of Science—Medical Technology

<table>
<thead>
<tr>
<th>Major:</th>
<th>32</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Courses:</td>
<td>(1)</td>
</tr>
<tr>
<td>Articulated courses in Medical Technology transferred from affiliation agreement</td>
<td></td>
</tr>
<tr>
<td>Other Requirements:</td>
<td>40</td>
</tr>
<tr>
<td>BIOL 150</td>
<td>Human Anatomy</td>
</tr>
<tr>
<td>BIOL 202</td>
<td>Principles of Cell and Molecular Biology</td>
</tr>
<tr>
<td>BIOL 240</td>
<td>Human Physiology</td>
</tr>
<tr>
<td>BIOL 241 or 250</td>
<td>Introductory Medical Microbiology or Principles of Microbiology</td>
</tr>
<tr>
<td>BIOL 364</td>
<td>Immunology</td>
</tr>
<tr>
<td>CHEM 231</td>
<td>Organic Chemistry I</td>
</tr>
<tr>
<td>CHEM 332</td>
<td>Organic Chemistry II</td>
</tr>
<tr>
<td>CHEM 325</td>
<td>Analytical Methods</td>
</tr>
<tr>
<td>CHEM 351</td>
<td>Biochemistry</td>
</tr>
<tr>
<td>PHYS 121</td>
<td>Physics I Lab</td>
</tr>
<tr>
<td>PHYS 122</td>
<td>Physics II Lab</td>
</tr>
<tr>
<td>Free Electives:</td>
<td>4</td>
</tr>
</tbody>
</table>

(1) These courses are offered by affiliating, hospital-based schools of medical technology (also know as clinical laboratory science). Areas of study are consistent with requirements of the National Accrediting Agency for Clinical Laboratory Sciences and are completed during the final 12 months of the degree program at an affiliating school.

### Medical Imaging

The program leading to the bachelor of science degree in Medical Imaging is designed to prepare students for admission into an IUP affiliate institution focused on one of three tracks: Nuclear Medicine Technology, Diagnostic Medical Sonography (Ultrasound), or Echocardiography. This program is a 3+1 whereby the student spends the first three years at IUP taking the required math/science and liberal studies courses and then a year at an affiliate where they earn a certificate in one of the specialty diagnostic imaging programs. All of the coursework at IUP is preparatory toward the final year and the requirements by the Medical Imaging profession. A “C” or better in the following courses is required: MATH 105, CHEM 101, ENGL 101, PHYS 111, BIOL 150, and ENGL 310 or BCOM 321. Acceptance at an affiliate school is contingent upon the student meeting the academic program requirements. At the end of their senior year, upon successful completion of the certificate program at an articulated clinical affiliate accredited within the specific discipline, IUP will grant 32 credits that will be applied to the student’s transcript and the bachelor’s degree in the Diagnostic Imaging track will be conferred.

### Diagnostic Medical Sonography (Ultrasound)

Diagnostic Medical Sonography or ultrasound, is a medical specialty in which allied health care professionals, use specialized equipment to create images of structures inside the human body. The process involves placing a small device called a transducer against the patient’s skin near the body area to be imaged. A stream of high-frequency sound waves are sent into the body, then are detected as the sound waves bounce off internal structures. Different structures in the body reflect these sound waves differently. The reflected sound waves are analyzed by a computer to make an image of the structure(s) on a monitor or an image that can be recorded on hardcopy. These images created by sonographers help aid physicians in diagnosing and treating medical conditions in the abdomen, breast, heart and blood vessels and, more recently, in diagnosing and treating musculoskeletal problems.

### Echocardiography

Echocardiography is a medical specialty in which allied health care professionals use specialized equipment to create images of structures inside the human body. These professionals use echocardiogram technology to produce images of the patient’s hearts. They create 2-D and 3-D pictures of the heart through the use of high frequency sound waves and special equipment. A transducer is placed against the patient’s skin by sending a stream of high frequency sound waves into the body and then detects the sound waves as they bounce off the heart. The reflected sound waves are analyzed by a computer to make an image of the structure(s) on a monitor or images that can be recorded on hard copy. The images created by sonographers help aid physicians in diagnosing and treating numerous disease processes. Sonographers are trusted members of the healthcare team and are relied upon to obtain diagnostic images that will allow physicians to provide the best possible care for their patients. Echocardiography technicians may specialize in adult echocardiography, pediatric echocardiography or fetal echocardiography.

### Nuclear Medicine Technology

Nuclear Medicine Technology is a medical specialty in which allied health care professionals, under the direction of a nuclear medicine physician, use radioactive materials in the diagnosis and treatment of disease. They are responsible for patient education and preparation regarding the nuclear medicine procedures, administration of radiopharmaceuticals, performing complex computer imaging studies, and radiation safety procedures for both patients and staff. The nuclear medicine technologist’s skills complement those of the nuclear medicine physician. Students are admitted to the Medical Imaging major as freshmen into any of the three tracks. Transfer students and those with a previous degree may also be admitted into one of the tracks. Students must meet specific academic requirements to be considered for admission to the
affiliate Medical Imaging track. Admission is competitive; IUP cannot guarantee admission. Information regarding academic requirements and other special requirements for the clinical year is available in the department’s office.

The Nuclear Medicine Technology program is fully accredited by the Joint Review Committee on Educational Programs in Nuclear Medicine Technology. Diagnostic Medical Sonography and Echocardiography Programs are accredited by the Commission on Accreditation of Allied Health Education Programs upon recommendation of the Joint Review Committee on Education in Diagnostic Medical Sonography.

**Bachelor of Science—Medical Imaging/Diagnostic Medical Sonography (Ultrasound)**

**Liberal Studies:** As outlined in Liberal Studies section with the following specifications:

**Mathematics:** MATH 105

**Natural Science:** CHEM 101-102

**Social Science:** PSYC 101, SOC 151 or 161

**Liberal Studies Electives:** 6cr, COSC/IFMG 101, PHYS 111, no courses with NMDT prefix

**Major:** 32

**Required Courses:** (1)

Articulated courses in track transferred from affiliation agreement (1)

**Other Requirements:** (2) 20

- BIOL 150 Human Anatomy 4cr
- BIOL 240 Human Physiology 4cr
- BIOL 241 Introductory Medical Microbiology 4cr
- ENGL 310 Public Speaking or or BCOM 321 Business and Interpersonal Communications 3cr
- PHYS 121 Physics I Lab 1cr
- PHYS 112 Physics II Lecture 3cr
- PHYS 122 Physics II Lab 1cr

**Free Electives:** (3) 21

**Total Degree Requirements:** 120

(1) These courses are offered at the University of Findlay/Nuclear Medicine Institute, Findlay, Ohio, and are consistent with requirements of the Joint Review Committee on Education in Diagnostic Medical Sonography. The courses are completed during the final 12 months of the degree program.

(2) Students are also required to complete a medical terminology course/program. Options to fulfill this requirement must be approved by the coordinator of allied health professions.

(3) Two writing-intensive courses are required. Both courses may be from either Liberal Studies or Free electives.

**Bachelor of Science—Medical Imaging/Nuclear Medicine Technology**

**Liberal Studies:** As outlined in Liberal Studies section with the following specifications:

**Mathematics:** MATH 105

**Natural Science:** CHEM 101-102

**Social Science:** PSYC 101, SOC 151 or 161

**Liberal Studies Electives:** 6cr, COSC/IFMG 101, PHYS 111, no courses with NMDT prefix

**Major:** 32

**Required Courses:** (1)

Articulated courses in track transferred from affiliation agreement (1)

**Other Requirements:** (2) 20

- BIOL 150 Human Anatomy 4cr
- BIOL 240 Human Physiology 4cr
- BIOL 241 Introductory Medical Microbiology 4cr
- ENGL 310 Public Speaking or or BCOM 321 Business and Interpersonal Communications 3cr
- PHYS 121 Physics I Lab 1cr
- PHYS 112 Physics II Lecture 3cr
- PHYS 122 Physics II Lab 1cr

**Free Electives:** (3) 21

**Total Degree Requirements:** 120

(1) These courses are offered at the University of Findlay/Nuclear Medicine Institute, Findlay, Ohio, in one of the three tracks—Nuclear Medicine Technology, Diagnostic Medical Sonography or Echocardiography. These areas of study are consistent with requirements of the JRCNMT. All eight of these areas of study are completed during the final 12 months of the degree program.

(2) Students are also required to complete a medical terminology course/program. Options to fulfill this requirement must be approved by the coordinator of allied health professions.

(3) Two writing-intensive courses are required. Both courses may be from either Liberal Studies or Free electives.

**Bachelor of Science—Medical Imaging/Echocardiography**

**Liberal Studies:** As outlined in Liberal Studies section with the following specifications:

**Mathematics:** MATH 105

**Natural Science:** CHEM 101-102

**Social Science:** PSYC 101, SOC 151 or 161

**Liberal Studies Electives:** 6cr, COSC/IFMG 101, PHYS 111

**Major:** 32

**Required Courses:** (1)

Articulated courses in track transferred from affiliation agreement (1)

**Other Requirements:** (2) 20

- BIOL 150 Human Anatomy 4cr
- BIOL 240 Human Physiology 4cr
- BIOL 241 Introductory Medical Microbiology 4cr
- ENGL 310 Public Speaking or or BCOM 321 Business and Interpersonal Communications 3cr
- PHYS 121 Physics I Lab 1cr
- PHYS 112 Physics II Lecture 3cr

**Free Electives:** (3)

**Total Degree Requirements:** 120

(1) These courses are offered at the University of Findlay/Nuclear Medicine Institute, Findlay, Ohio, and are consistent with requirements of the Joint Review Committee on Education in Diagnostic Medical Sonography. The courses are completed during the final 12 months of the degree program.

(2) Students are also required to complete a medical terminology course/program. Options to fulfill this requirement must be approved by the coordinator of allied health professions.

(3) Two writing-intensive courses are required. Both courses may be from either Liberal Studies or Free electives.

**Gerontology Certificate**

**Joyce A. Shanty, Coordinator**

The Gerontology Certificate program provides an interdisciplinary approach to the systematic study of the aging and is designed to be combined with any undergraduate major at IUP. The 21-credit program entails three core courses, three elective courses, and an internship that provides experiential learning in an agency or program serving older adults. Many courses fulfill the Liberal Studies program requirements. Applications are available at 244 Johnson Hall. For information, call 724-357-7647.

**Gerontology Certificate Program**

**Core Courses:**

- KHSS 350 Health Aspects of Aging or 413 Physical Activity and Aging 3cr
PSYC 312 Adult Development and Aging 3cr
SOC 357 Sociology of Aging and the Life-course 3cr

Controlled Electives:
9
9cr from the following: ANTH 340, 444, CDFR 428, FCSE 315,
FDNT 212, 410, GERN 281, MGMT 300, 311, PHIL 122, 130, 240,
PSYC 313, 376, 378, SOC 336, 345, 422

Other Requirements:
3
Internship (GERN or internship in student’s major) 3cr

Department of Safety Sciences

Website: www.iup.edu/safetysciences
Tracey Cekada, Chair

The department offers a minor and a Bachelor of Science degree program
with a major in safety, health, and environmental applied sciences with a
focus on occupational exposures. The program in safety, health, and envi-
ronmental applied sciences prepares the students for professional, admin-
istrative, managerial, and supervisory positions in industry, manufacturing,
insurance, transportation, utility, government, construction, trade service
industries, and others. There remains a need in Pennsylvania and the nation
for university-educated occupational safety, health, and environmental
professionals. As a minimum, the curriculum includes a major of 52 credits
in safety, health, and environmental applied sciences. The BS with a major
in safety, health, and environmental applied sciences is accredited by the

Bachelor of Science—Safety, Health, and Environmental
Applied Sciences

Liberal Studies: As outlined in Liberal Studies section with the
following specifications:
Mathematics: MATH 105
Natural Science: CHEM 101-102
Social Science: PSYC 101, global and multicultural awareness course
Liberal Studies Elective: 3cr, MATH 217

Major: 52-58
Required Courses:
SAFE 101 Introduction to Occupational Safety and Health 3cr
SAFE 111 Principles of Safety I—General Industry 3cr
SAFE 211 Principles of Safety II—Construction Industry 3cr
SAFE 215 Hazard Prevention Management I 3cr
SAFE 215 Safety, Health, and Environmental Communications 3cr
SAFE 220 Hazardous Materials and Emergency Management 3cr
SAFE 310 Environmental Safety and Health Regulations and Sustainability 3cr
SAFE 311 Fire Protection 3cr
SAFE 330 Recognition, Evaluation, and Control of Occupational Health Hazards I 4cr
SAFE 335 Industrial and Environmental Stressors 2cr
SAFE 345 Process and Systems Safety 3cr
SAFE 347 Applied Ergonomics 3cr
SAFE 361 Air and Water Pollution 2cr
SAFE 412 Hazard Prevention Management II 3cr
SAFE 430 Recognition, Evaluation, and Control of Occupational Health Hazards II 4cr
SAFE 435 Ethics and Professionalism 1cr
SAFE 488/493 Internship 6-12cr

Other Requirements: 18

Additional Science and Mathematics:
BIOL 104 Human Biology: How the Human Body 
or 155 Works or Human Physiology and Anatomy 4cr
PHYS 111 Physics I Lecture 3cr
PHYS 112 Physics II Lecture 3cr
PHYS 121 Physics I Lab 1cr

PHYS 122 Physics II Lab 1cr
Business Electives: Two 3cr courses from the following: 6cr
ACCT 200, MGMT 300, 310, 311, 434
Free Electives: 0-6
Total Degree Requirements: 120

Safety, Health, and Environmental Applied Sciences Minor

The minor consists of 18 credits in safety, health, and environmental applied
sciences courses as identified below. The minor has improved job
opportunities for students in environmental geoscience, criminology, human
resource management, international business, and management.

Minor—Safety, Health, and Environmental Applied Sciences 18

Required Courses:
SAFE 101 Introduction to Occupational Safety and Health 3cr
SAFE 111 Principles of Safety I—General Industry 3cr
SAFE 220 Hazardous Materials and Emergency Management 3cr
SAFE 310 Environmental Safety and Health Regulations and Sustainability 3cr

Controlled Electives:
SAFE courses approved by department chair totaling at least 6cr
6cr with at least 3cr being in 300-level or higher course(s)

BIOL 104 Human Biology: How the Human Body 
PHYS 111 Physics I Lecture 3cr
PHYS 112 Physics II Lecture 3cr
PHYS 121 Physics I Lab 1cr

Page 116 INDIANA UNIVERSITY OF PENNSYLVANIA UNDERGRADUATE CATALOG, 2019-20
The College of Humanities and Social Sciences

Yaw A. Asamoah, Dean
Dorothy M. Gracey, Associate Dean
Heide Withöfft, Dean’s Associate
Website: www.iup.edu/humanities

The College of Humanities and Social Sciences provides a liberal education as an essential foundation for the student’s preparation for a satisfying career. The college maintains an emphasis on the fundamental understanding of our cultural heritage, combined with development of a thorough background of knowledge in the student’s specific area of interest. It seeks to promote in students critical and objective thinking, analytical skills, and a keen awareness of their responsibilities to society.

### College Majors

<table>
<thead>
<tr>
<th>Major</th>
<th>Major</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anthropology</td>
<td>Political Science</td>
</tr>
<tr>
<td>Asian Studies</td>
<td>Economics</td>
</tr>
<tr>
<td>English</td>
<td>English Education</td>
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<td>Regional Planning</td>
<td>Religious Studies</td>
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<tr>
<td>Geography</td>
<td>Social Science Education</td>
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<tr>
<td>History</td>
<td>Social Studies Education</td>
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<tr>
<td>International Studies/Political Science</td>
<td>Spanish</td>
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<tr>
<td>Journalism and Public Relations</td>
<td>Spanish Education K-12</td>
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<td>Philosophy</td>
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### College Minors

<table>
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<tr>
<th>Minor</th>
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<tbody>
<tr>
<td>Anthropology</td>
<td>Latin American Studies</td>
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<tr>
<td>Asian Studies</td>
<td>Lesbian, Gay, Bisexual, Transgender, and Queer Studies</td>
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<tr>
<td>Economics</td>
<td>English</td>
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<td>Geography</td>
<td>Pan-African Studies</td>
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<td>German</td>
<td>Philosophy</td>
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<td>Homeland Security</td>
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<td>International Studies</td>
<td>Regional Planning</td>
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<td>Journalism and Public Relations</td>
<td>Spanish</td>
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<td>French</td>
<td>Religious Studies</td>
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<td>Sociology</td>
<td>Sociology of Disability Services</td>
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<tr>
<td>Sociology/General Sociology</td>
<td>Sociology/Human Services</td>
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<tr>
<td>Women’s and Gender Studies</td>
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</tbody>
</table>

### Interdisciplinary Programs, Minors and Certificates

The Interdisciplinary degree programs, minors, and certificates are multidisciplinary and are not specific to one university college. Requirements for each of the interdisciplinary offerings appear in the Academic Affairs section.

**Degree Programs:** Public Health (Available Tracks: Behavioral and Mental Health, Environmental and Occupational Health, Epidemiology and Biostatistics, Global and Rural Communities)

**Minors:** Child and Adult Advocacy Studies, Global Health, Pre-Law, Professional Teamwork and Leadership, Sustainability Studies

**Certificates:** Child Adult and Advocacy Studies, Living Learning (Available Tracks: Global Scholarship, Scientific Communication), Shale, Gas, and Energy

### Degrees

The departments of Anthropology, Economics, English, Foreign Languages, Geography and Regional Planning, History, Journalism and Public Relations, Philosophy, Political Science, Religious Studies, and Sociology and the Asian Studies Committee offer work leading to a bachelor of arts degree. The bachelor of science degree is offered in regional planning and public health. The bachelor of science in education is offered in English, social science, social studies, and Spanish.

Master of arts or master of science degrees are offered by English, Geography and Regional Planning, History, Political Science, and Sociology. The English and Sociology departments offer the doctor of philosophy degree. Information about these programs may be obtained from the School of Graduate Studies and Research.

### Pre-law Interdisciplinary Minor

Successful lawyers possess excellent skills in writing and speaking and can analyze a problem and explain its solution in clear, logical terms. The Pre-law Interdisciplinary minor prepares the student especially well in these areas and provides the skills and knowledge needed to do well in the law school admissions examination. This minor may be taken with any major other than those with Pre-law Tracks. Although a pre-law minor is not required for law school admission, this interdisciplinary minor will provide students with the prerequisite skills for law school. Interested students should contact the Office of the Dean in the College of Humanities and Social Sciences. For requirements details, please refer to the Academic Affairs/Interdisciplinary section.

### Departmental Honors Tracks

Departmental honors tracks in the College of Humanities and Social Sciences enable eligible students to participate in advanced study in their disciplines. These tracks are particularly encouraged for students who intend to seek admission to graduate or professional schools.

Honors course work is recorded on university transcripts, and students completing the departmental honors tracks will be recognized at commencement ceremonies. For detailed guidance in departmental honors tracks, students should consult the description in their major department and meet with their advisors.

### Junior-Year Review

A review of degree requirements is completed for all students who are candidates for a degree offered by the college. The purpose of the review is to verify that a student is on track to meet graduation requirements by his/her anticipated graduation date. Completed junior-year review reports must be approved by the department Chair and the dean’s associate.

It remains the student’s responsibility to apply for graduation by the announced deadline. Failure to meet the graduation application deadline may result in a delay in the student’s graduation.

### College Foreign Language Requirements

Students whose primary major is in the College of Humanities and Social Sciences must complete up through the 12th credit of a foreign language sequence. They may choose any of the languages offered, including the self-instruction in the Critical Languages program. Some courses taught in the traditional format (Chinese, French, German, Japanese, Spanish) also count toward Liberal Studies electives. Courses in American Sign Language and computer languages do not count toward the college language requirement.

For students with previous foreign language instruction or experience, individual placement into foreign language courses may be done during placement testing and registration before the first semester at IUP. Students may also take a placement exam before, but not after, beginning course work in a particular language. Students who place into classes beyond the 12th credit within a foreign language are considered to have met the language requirement. Students who place beyond the introductory course, but not beyond the 12th credit, are only required to complete through the 12th credit. For example, the first courses in the Spanish curriculum are three 4-credit classes: SPAN 101, 102, and 201. A student who places into SPAN 102 would only need to pass SPAN 102 and 201 in order to meet the language requirement. Students with no previous foreign language background will take entry-level courses, which may be counted as free electives in the total required for graduation.
Any undergraduate international student, registered as such at IUP, whose acquired native language is other than English and who demonstrates an acceptable proficiency in English, is exempt from the foreign language requirement if the department of the student’s major does not require a specific foreign language. Also, any student with a secondary major in the college whose primary major does not require foreign language does not need to complete the college-level requirement.

**Degree Requirements**

In addition to the university’s Liberal Studies requirements, students seeking a baccalaureate degree in this college must complete the requirements for a major as established by the department through which they wish to specialize. Statements of these requirements, and the requirements for those minoring in a specific field, appear in the department sections that follow. A dual baccalaureate degree or double major or minor may encompass a discipline outside as well as within the college but should be selected only with advisor approval. As a general principle, there is considerable latitude in course choice for Humanities and Social Sciences majors. The intermediate-level foreign language requirement applies without exception to all Humanities and Social Sciences four-year degree programs.

**Critical Languages Program**

The Critical Languages program is a self-instructional/tutorial approach to less commonly taught foreign languages. Students meet with a tutor three hours per week in addition to practicing with audio cassettes. Most tutors are native speakers of the language. Professional teachers of the specific language may be brought in from other universities to evaluate student performance. The final grade is based on final examination as well as on performance during the tutorial sessions. Interested students must contact the coordinator before registration. Each course carries 3 credits.

The following languages may be available for study: Arabic, Dutch, Finnish, Modern Greek, Hebrew, Hindi, Hungarian, Korean, Portuguese, Russian, Swahili, and Swedish.

**Internship Programs**

Humanities and Social Sciences departments encourage internship programs that allow students to engage in supervised experiences in a work setting related to their personal career goals, giving them the benefits of mentoring and coaching from professionals in the discipline. Students have completed internships in a number of settings, from legislative offices in Harrisburg and Washington, DC, to offices at the county level including county planning and development offices and children and youth services, Common Pleas Court to human services agencies such as Head Start and from Lifesteps. When completed for academic credit, students will complete a project and/or a final paper that is approved by a faculty internship supervisor. For more information about specific internship programs, students should consult with the Chair of the department in which the student is majoring/minoring.

**Foreign Study Programs**

College majors may be interested in the various foreign study programs and tours offered. Credits obtained through such arrangements normally are applicable toward a Humanities and Social Sciences degree. Also of interest are the college’s credit-awarding programs at Valladolid (Spain) and Nancy (France), as well as the Summer Study in Mexico program.

**IUP at Costa Rica Summer Program**

: The Department of Foreign Languages has established a four-week study program at the National University of Costa Rica, located in Heredia. Participants live with Costa Rican families and take classes at the university. This program is intended for students who are going abroad for the first time, and preference is given to beginning students. Participants earn 4 transfer credits in Spanish from the UNA. For details and brochures, contact the Department of Foreign Languages.

**IUP at Mexico Summer Program**

: The Department of Foreign Languages sponsors a program of study in Spanish language in Mexico. The program is located at Cuernavaca, and the cost of the program includes transportation, complete room and board, insurance, and tuition. The student may earn up to 6 credits of undergraduate or graduate credit. Internship opportunities are available for students with fluency in Spanish. For details and brochures, contact the Department of Foreign Languages.

**Asian Studies**

**Alan T. Baumler, Coordinator**

The Committee of Asian Studies offers an interdisciplinary major and a minor to provide students with the opportunity to increase their knowledge of the world’s largest, most populous, and most diverse continent. Students enrolled in the Asian studies major or minor will find that the course offerings furnish excellent preparation for careers in business, government, journalism and public relations, and teaching.

To complete the Asian studies major, a student must take a minimum of 33 credits in courses dealing with Asia. All Asian studies majors must take ASIA 200 and must demonstrate at least an intermediate-level proficiency in an Asian language, doing so either by passing the intermediate sequence of one of the Asian languages offered at IUP or by demonstrating that they have acquired the equivalent proficiency level elsewhere. The remaining courses should come from “Category A: Exclusively Asia-Focused.” Students may, but do not have to, apply up to three credits from “Category B: Substantially Asia-Focused” to their degree. It is highly recommended that students complement their Asian studies degree with a minor or second major, preferably in such fields as anthropology, economics, fine arts, geography, history, international business, international studies, journalism and public relations, political science, or religious studies.

To minor in Asian studies, students must complete a minimum of 18 credits, no more than 6 of which may have the prefix of their major. ASIA 200 is required of all Asian studies minors. At least 12 credits must come from Category A (Exclusively Asia-Focused); 3 credits of an Asian language course may apply to the Category A requirement. No more than 3 credits from Category B (Substantially Asia-Focused) may be applied to the minor.

**Bachelor of Arts—Asian Studies**

**Liberal Studies:** As outlined in Liberal Studies section with the following specifications:

- **Mathematics:** 3cr
- **Liberal Studies Elective:** 3cr, no courses with CHIN or JAPN prefixes

**Major:**

<table>
<thead>
<tr>
<th>Required Course</th>
<th>33-34</th>
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</thead>
<tbody>
<tr>
<td>ASIA 200</td>
<td>3cr</td>
</tr>
<tr>
<td>Controlled Electives (1)</td>
<td>30cr</td>
</tr>
<tr>
<td>Intermediate Asian Language (2)</td>
<td>0-4cr</td>
</tr>
<tr>
<td>CHIN 201</td>
<td>4cr</td>
</tr>
<tr>
<td>CRLG 251</td>
<td>3cr</td>
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<tr>
<td>CRLG 255</td>
<td>3cr</td>
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<tr>
<td>CRLG 264</td>
<td>3cr</td>
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<tr>
<td>JAPN 201</td>
<td>4cr</td>
</tr>
<tr>
<td>KORE 201</td>
<td>4cr</td>
</tr>
<tr>
<td>Category A: Exclusively Asia-Focused (3, 4)</td>
<td>24-30cr</td>
</tr>
</tbody>
</table>

At least 24cr earned through the following courses:

| ANTH 272 | Cultural Area: China | 3cr |
| ANTH 273 | Cultural Area Studies: Southeast Asia | 3cr |
| ANTH 333 | The Archaeology of Early China | 3cr |
| ARHI 224 | Introduction to Asian Art | 3cr |
| ARHI 423 | Art of Japan | 3cr |
| ARHI 424 | Art of India and Southeast Asia | 3cr |
| ARHI 425 | Arts of China | 3cr |
| 3cr ARHI 427 | Japanese Narrative Art | 3cr |
A student who has acquired an intermediate level of proficiency in an Asian language, but not through an accredited college program, may apply to the Asian Studies Committee to be exempt from 3 cr in intermediate language instruction. Such credits in these cases are to be applied to either Category A or Category B with the approval of the Asian Studies Committee. (2) With the program coordinator’s approval, 3 cr of an internship (493) may be counted toward the Asian Studies minor. (3) Courses need to be in at least two different prefixes.

Electives: 15

The remaining 15 credits should come from the list of Category A, exclusively Asia-focused classes from the major. Students may, but do not have to, apply up to 3 cr of an Asian Language class and/or 3 cr of a Category B class.

(1) The subject matter varies in rotating topic courses (e.g., HIST 497, RLST 485 etc.); and special topics courses (i.e. classes numbered 281 and 481). When concerned with Asian Studies, these courses may be applied to either Category A or Category B with the approval of the Asian Studies Committee. (2) With the program coordinator’s approval, 3 cr of an internship (493) may be counted toward the Asian Studies minor. (3) Courses need to be in at least two different prefixes.

For further information on the Asian Studies programs, contact the College of Humanities and Social Sciences, 201 McElhaney Hall, 724-357-2280.

Asian Studies Honors Track

The honors program is open by permission of the Asian Studies Committee to Asian Studies majors with a minimum 3.5 GPA in Asian Studies courses. Students complete 36 credits in Asian Studies (instead of the normal 33) including two semesters of honors thesis research and writing. Honors theses are completed individually under the direction of a professor who specializes in the student’s area of interest and approved by a thesis committee comprising the coordinator and two other readers, one of whom may come from outside the program.

Groups interested in the Asian Studies honors program should discuss this opportunity as early as possible with their advisors. Students may file a declaration of intent during the sophomore year; a formal application for admission must be made, normally early in the junior year. The program is particularly encouraged for students intending to seek admission to graduate or professional schools. Honors course work is designated on university transcripts; students completing the honors program are recognized at commencement ceremonies.

Asian Studies Honors Track

9

Three additional credits in Asian Studies

ASIA 483 Honors Thesis (1) 6 cr

(1) Two semesters, 3 cr each.

China Studies Certificate

The China Studies Certificate is a 15-credit program that allows students to pursue studies that focus on one or more disciplinary areas focused on China. Students who wish to pursue graduate-level studies and/or a career in a China-related field may want to add this credential to their main academic preparation. Others who have an interest in Chinese society and culture can also benefit from this certificate.

Certificate—China Studies (1, 2, 3, 4)

15

Core Courses: Primarily China-Focused Courses: (2) 12-15

ANTH 272 Cultural Area Studies: China 3 cr

ANTH 333 The Archaeology of Early China 3 cr

ARHI 425 Arts of China 3 cr

CHIN Chinese Language Courses (5) 4 cr

HIST 433 China 1300-1800: The Late Imperial Age 3 cr

HIST 434 Modern China 1800-present 3 cr

Electives: East Asia-Focused Courses: 0-3

GEOG 256, HIST/ASIA 106, HIST 206, PLSC 383, RLST 311, 370, 374

(1) Courses need to be in at least two different prefixes.

(2) The subject matter varies in rotating topic courses (e.g., HIST 497, RLST 485 etc.); and special topics courses (i.e. classes numbered 281 and 481). When concerned with Asian Studies, these courses may be applied to either the China-focused or East Asia-focused categories with the approval of the Asian Studies Coordinator.

(3) Three credits of an appropriate internship can count towards the certifi-
The Middle Eastern Studies Certificate is a 15-credit program that allows students to pursue studies that focus on one or more disciplinary areas focused on the Middle East. Students who wish to pursue graduate-level studies and/or a career in a Middle Eastern-related field may want to add this credential to their main academic preparation. Others who have an interest in Japanese society and culture can also benefit from this certificate.

Certificate—Japan Studies (1, 2, 3, 4)  
Core Courses: Primarily Japan-Focused Courses: (2)  12-15
ARHI 423 Art of Japan  3cr
ARHI 427 Japanese Narrative Art  3cr
HIST 436 Japan 1500-1850: Early Modern Japan  3cr
HIST 437 Modern Japan 1850-present  3cr
JAPN Japanese Language Courses (5)  4cr
RLST 374 Buddhism  3cr

Electives: East Asia-Focused Courses:  0-3
GEOG 256, HIST/ASIA 106, HIST 206, PLSC 383, RLST 311, 370
(1) Courses need to be in at least two different prefixes.
(2) The subject matter varies in rotating topic courses (e.g., HIST 497, RLST 485 etc.); and special topics courses (i.e. classes numbered 281 and 481). When concerned with Asian Studies, these courses may be applied to either the Japan-focused or East Asia-focused categories with the approval of the Asian Studies Coordinator.
(3) Three credits of an appropriate internship can count towards the certificate with the approval of the Asian Studies Coordinator.
(4) No more than 6 transfer credits may be counted towards the certificate.
(5) No more than 3cr from an appropriate language class may be counted towards the certificate.

The Middle Eastern Studies minor is a multidisciplinary program that brings together courses focusing on the history, literature, culture, geography, political economy, and social organization of Latin America. This minor is designed to increase awareness and understanding of Latin American peoples, environments, and cultures. Its purpose is to combine an area focus with the Liberal Studies requirements of the IUP curriculum. The minor helps IUP students to enrich their understanding of world cultures and of the complexity of cultural diversity in a changing world. In addition, one goal is to expand student awareness of the contributions people of this region have made to the United States and internationally. A Latin American studies minor is thus valuable in an increasingly diverse society, especially since people of Hispanic descent represent the largest minority population in the United States.

Students must complete 18 credits to earn a minor in Latin American studies. In keeping with the multidisciplinary approach of the program, students are encouraged to take courses from departments throughout the university. Students can count no more than 9 credits from the same department (or 6 credits within their major) toward the minor. At least three courses (9 credits) must come from Category A: Exclusively Latin America-Focused. Other courses may come from either Category A or Category B: Substantially Latin America-Focused. Special topics and independent study courses may be applied to either category with the approval of the Latin American Studies Committee. Students enrolled in the colleges of Natural Sciences and Mathematics and Humanities and Social Sciences who are considering a minor in Latin American studies are strongly encouraged to take SPAN 201 to complete their Liberal Studies language requirement. Students should consult with the program coordinator to determine if there are any prerequisites for the courses listed below. Through counseling, the program coordinator will work with individual departments to determine if students might be qualified for prerequisite exemptions. Students who complete courses through established study-abroad centers in Latin America can apply for credit toward the Latin American Studies minor. Each request for transfer credit will be considered on a case-by-case basis by the program coordinator.

- **Required Course:** LAS 480
- **Category A: Exclusively Latin America-Focused courses are devoted to a combination or subset of the following topics:** the countries that compose Latin America, its physical environments, and the human systems and cultures of the region.
- **Category B: Substantially Latin America-Focused courses have significant material specifically about the countries that compose Latin America, its physical environments, and the human systems and cultures of the regions.** The remainder of the course materials establishes relevant comparisons and contexts for Latin American themes.

**Minor—Latin American Studies**  

<table>
<thead>
<tr>
<th>Required Course</th>
<th>15</th>
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<tbody>
<tr>
<td>HIST 207 History of the Middle East</td>
<td>3cr</td>
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<td>HIST 330 History of the Islamic Civilization</td>
<td>3cr</td>
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<td>HIST 331 Modern Middle East</td>
<td>3cr</td>
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<tr>
<td>HIST 338 The History of Iran</td>
<td>3cr</td>
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<tr>
<td>HIST/PLSC 339 Jihad and the Origins of Islamist Movements in the Middle East</td>
<td>3cr</td>
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<tr>
<td>PLSC 384 Political Systems: Middle East</td>
<td>3cr</td>
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<tr>
<td>RLST 380 Islam</td>
<td>3cr</td>
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<tr>
<td>LAS 480 Latin American Studies Seminar</td>
<td>3cr</td>
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<tr>
<td>ANTH/SOC 274 Cultural Area Studies: Latin America</td>
<td>3cr</td>
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<tr>
<td>ANTH/LAS 370 Latinos and Diasporas</td>
<td>3cr</td>
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<tr>
<td>ANTH 460 Ethnographic Field School (1)</td>
<td>3cr</td>
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<tr>
<td>ENGL 344 Ethnic American Literature (1)</td>
<td>3cr</td>
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<tr>
<td>GEOG 252 Geography of Latin America</td>
<td>3cr</td>
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<tr>
<td>GEOG 484 Field Studies in Geography and Social Studies (1)</td>
<td>3cr</td>
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<td>HIST 208 Survey of Latin American History</td>
<td>3cr</td>
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<tr>
<td>HIST 350 History of Latin America: Colonial Period</td>
<td>3cr</td>
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<tr>
<td>HIST 351 History of Latin America: National Period</td>
<td>3cr</td>
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<tr>
<td>LAS 281 Special Topics in Latin American Studies</td>
<td>3cr</td>
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<tr>
<td>LAS 481 Special Topics in Latin American Studies</td>
<td>3cr</td>
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<tr>
<td>LAS 482 Independent Study</td>
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<tr>
<td>LAS 493 Internship (2)</td>
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<td>PLSC 387 Political Systems: Latin America</td>
<td>3cr</td>
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<td>PLSC 389 International Development Strategies</td>
<td>3cr</td>
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<td>SPAN 244 Modern Mexico</td>
<td>3cr</td>
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<tr>
<td>SPAN 260 Introduction to Hispanic Literature</td>
<td>3cr</td>
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<tr>
<td>SPAN 340 Hispanic Cultures into the 19th Century</td>
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</table>
SPAN 344  Spanish-American Cultures from the 19th Century to the Present  3cr
SPAN 364  Survey of Spanish-American Literature  3cr
SPAN 420  Modern Hispanic Theater  3cr
SPAN 421  Modern Hispanic Short Story  3cr
SPAN 430  20th-Century Spanish-American Prose  3cr
SPAN 431  Spanish-American Poetry  3cr

Category B: Substantially Latin America-Focused:  0-6
ECON 339  Economic Development I  3cr
ECON 345  International Trade  3cr
ECON 346  International Finance  3cr
ECON 350  Comparative Economic Systems  3cr
ENGL/FNLG 396  The Literature of Emerging Nations  3cr
MGMT/MKTG 350  International Business  3cr
MGMT 351  International Management  3cr
MGMT 452  Comparative Management  3cr
MGMT 454  International Competitiveness  3cr
MKTG 430  International Marketing  3cr
PLSC 285  Comparative Government II: Non-Western Political Systems  3cr

(1) The topic of ANTH 460, ENGL 344, and GEOG 484 varies (check with instructor). When concerned with Latin America or the Hispanic experience in the United States, these courses will count toward the Latin American Studies minor.

(2) With the program coordinator’s approval, 3cr of an internship (LAS 493) may be counted toward the Latin American Studies minor.

For further information on this minor, contact the College of Humanities and Social Sciences, 201 McElheney Hall, 724-357-2280.

Lesbian, Gay, Bisexual, Transgender, and Queer (LGBT&Q) Studies Minor

The Lesbian, Gay, Bisexual, Transgender, and Queer (LGBT&Q) Studies minor provides students the opportunity to critically analyze influences on and of sexualities, sexual and gender identity formation, and experiences in various social contexts, with a focus on sexual minorities and on preparing students to live and work in a pluralistic society. This interdisciplinary minor includes courses from a variety of disciplines, including sociology, anthropology, psychology, English, health education, child development and family relations. Students will examine diversity in sexual and gender identities, and the intersections of sexualities and gender with other identities including race, religion, and social class. Students also explore institutional influences, including family, politics, labor force and economics, religion, education, health care, media, arts, and sciences and the local, national, and global discourse on sexualities and gender identities. The curriculum additionally includes critical examination of the formation and effects of public policies on individuals and communities of differing sexual and gender identities, analysis of representations, and the discourses on sexualities as expressed through language, literature, and the arts, as well as the policies and practices of social institutions such as health care, religion, politics, education, and sports, among others.

Minor—Lesbian, Gay, Bisexual, Transgender, and Queer (LGBT&Q) Studies  18

Required Course:
LGBT 200  Introduction to Lesbian, Gay, Bisexual, Transgender, and Queer Studies  3cr

Controlled Electives:
Five courses from the following, two of which must be 300 level or higher:  (1)
ANTH 350, 352, CDFR 224, 323, ENGL 350, KHSS 450, LGBT 400, PLSC 405, PSYC 379, SOC 251

(1) Other relevant courses may serve as an elective with permission of the LGBT&Q Studies coordinator.

For further information on this minor, contact the College of Humanities and Social Sciences, 201 McElheney Hall, 724-357-2280.

Pan-African Studies Minor

The Pan-African Studies minor is a multidisciplinary program that brings together courses focusing on the vitality and accomplishments of pre-colonial African societies, the cultural and racial heritages of people of African descent in relationship to western societies, and aspects of modern-day African cultures. The cluster of courses included in this program represents a broad, diverse look at the diaspora of people of African origin. The minor helps students to enrich their cross-cultural studies; to heighten their awareness of and sensitivity to cultural diversity; and to expand their knowledge of world contributions of people of African heritage. A Pan-African Studies minor is thus valuable in an increasingly diverse society and attractive to employers and graduate schools alike.

Students must complete 18 credits to earn a minor in Pan-African studies. In addition to the one required course PNAF 131, at least three courses (9 credits) must come from Category A: Exclusively Pan-African-Focused courses. The remaining courses may come from either Category A or Category B: Substantially Pan-African-Focused courses. Because their content may vary, courses from Category B must be approved by the coordinator of Pan-African Studies to count for the minor. In addition, special topics, independent study, study abroad, and internship courses may be applied to either category with the approval of the program coordinator.

Minor—Pan-African Studies (*)  18

Required Course:
PNAF 131  Introduction to Pan-African Studies  3cr

Category A: Exclusively Pan-African Focused:  9-15
ANTH/SOC 271  Cultural Area Studies: Africa  3cr
ARHI 418  African Art  3cr
COMM 380  The History of African Americans in Film  3cr
ECON 338  Poverty in Africa  3cr
ENGL 348  African-American Literature  3cr
GEOG 255  Geography of Africa  3cr
HIST 355  African History I: Antiquity to 1600  3cr
HIST 356  African History II: 1600 to Present  3cr
HIST 365  History of Black America since Emancipation  3cr
HIST 366  African-American Women  3cr
PLSC 282  Political Systems: Africa  3cr
PNAF 381  Special Topics in Pan-African Studies  3cr
PNAF 481  Special Topics in Pan-African Studies  3cr
PNAF 482  Independent Study  3cr
PNAF 493  Pan-African Studies Internship  3cr
RLST 360  African Religions  3cr

Category B: Substantially Pan-African Focused:  0-6
CRLG 165  Swahili II  3cr
CRLG 215  Swahili III  3cr
ECON 339  Economic Development I  3cr
ENGL 396  The Literature of Emerging Nations  3cr
ENGL 398  Global Genres  3cr
JRNL 375  World News Coverage  3cr
PLSC 389  International Development Strategies  3cr
RLST 380  Islam  3cr
SOC 362  Racial and Ethnic Minorities  3cr

(*) No more than 6cr taken for the minor may also count for the student’s major.
(1) Because their content may vary, courses from Category B must be approved by the Pan-African Studies coordinator in order to count for the minor.

For further information on this minor, contact the College of Humanities and Social Sciences, 201 McElheney Hall, 724-357-2280.

Women’s and Gender Studies Minor
The Women’s and Gender Studies minor is designed to increase students’ interdisciplinary knowledge about the gendered nature of women’s experiences and the ways that all genders are shaped by history, culture, and society. In order to achieve this goal, the program offers courses using a variety of theories and methodologies from a range of disciplines, such as anthropology, art, communication media, criminology, film, the fine arts, history, journalism and public relations, literature, philosophy, political science, psychology, religious studies, and sociology. The program explores gendered hierarchies and the impact of gender on the experiences of women, as well as women- and gendered-centered knowledge productions and learning. Students are encouraged to challenge traditional theories and research regarding women and gender through innovative and experimental classroom experiences and writing assignments. Students analyze the world, imagine and re-envision it, and seek to enact social transformation in both theory and practice.

A minor in women’s and gender studies strengthens and supplements every academic major and later professional careers. Students’ awareness of gendered, sexualized, classed, and racialized hierarchies make them valuable professionals in a range of careers, from business and banking to social work and law.

**Minor—Women’s and Gender Studies**

**Required Course:**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>WGS 200</td>
<td>Introduction to Women’s and Gender Studies</td>
<td>3cr</td>
</tr>
</tbody>
</table>

Students receive approval for a specified course of study from the following list of courses: (1, 2, 3)

- ANTH 350 Anthropology of Gender 3cr
- ASIA/HIST 106 Samurai and Genghis: Heroes 3cr
- Feminism in East Asia 3cr
- COMM 325 Gender in Media 3cr
- CRM 450 Women and Crime 3cr
- ENGL 225 Introduction to Literature by Women 3cr
- ENGL 336 Language, Gender, and Society 3cr
- ENGL 350 Gender and Sexual Orientation in Literature, Theory and Film 3cr
- ENGL 385 Advanced Women’s Literature 3cr
- HIST 306 African-American Women 3cr
- HIST 369 Women in America 3cr
- HIST 390 History of Women—World Cultures 3cr
- JRN 250 Women and the Press 3cr
- PHI 232 Philosophies of Love 3cr
- PLSC 404 Women and Politics 3cr
- PSYC 379 Psychology of Human Sexuality 3cr
- PSYC 380 Gender and Violence 3cr
- PSYC 411 Psychology of Women 3cr
- RLST 245 Women and Religion 3cr
- RLST 345 Women in the Bible 3cr
- RLST 485 Selected Topics in Feminist Studies of Religion 3cr
- SOC 251 Sociology of Human Sexuality 3cr
- SOC 363 Sociology of Gender 3cr
- SOC 410 Men and Masculinities 3cr
- SOC 427 Social Perspectives on Intimate Partner Violence 3cr
- WGS 301 Asian American and Asian Diasporic Women’s Literature 3cr
- WGS 400 Feminist Theories 3cr
- WGS 480 Independent Study var-1-3cr
- XXXX 281 Special Topics (offered within department) (4) var-1-3cr
- XXXX 481 Special Topics (offered within department) (4) var-1-3cr
- XXXX 493 Internship (5) var-1-3cr

(1) Students receive approval for a specified course of study from the above list of courses and, with permission from the director of Women’s and Gender Studies, from selected WGS courses that have been recently developed.

(2) No more than two courses that for a student’s major can also count for the Women’s and Gender Studies minor.

(3) At least 6cr of coursework must be at 300 level or above.

**Department of Anthropology**

**Website:** www.iup.edu/anthropology

**Ben Ford, Chair**

The Anthropology Department promotes awareness of anthropological knowledge and methods and seeks to further the discipline and its applications to the problems of the contemporary world. Through teaching, research, and involvement in campus and community events and programs, the Anthropology faculty members contribute to the liberal education of IUP students. The anthropology major itself equips students with knowledge and skills needed for full participation in the global environment of the 21st century.

Anthropology emphasizes the study of human biological and cultural diversity within its four subfields: sociocultural anthropology, biological anthropology, linguistic(s) anthropology, and archaeology. All students receive a solid foundation in the discipline of anthropology and tailor their major to specific interests by following one of the four tracks.

**General Anthropology Track**

The General Anthropology Track ensures that students receive a strong foundation in all four subdisciplines of anthropology while simultaneously permitting them a great deal of freedom to explore a variety of issues in anthropology and to tailor the curriculum to the students’ own interests. The General Track is suitable for any anthropology major or students seeking to double major in anthropology.

**Archaeology Track**

The Archaeology Track provides an emphasis on the study of culture through the material remains of human behavior. This track provides training for careers in the growing fields of cultural resource management and historic preservation, with opportunities for employment in both government and the private sector. This track usually is the preferred option for students intending to pursue archaeology at the graduate level as well. Students in this track take archaeological methods, theory, and area courses as well as anthropology core courses and electives. A wide variety of internship opportunities provide hands-on training in these areas.

**Applied Anthropology Track**

The Applied Anthropology Track provides students with a background in anthropological method and theory, a cross-cultural perspective, and an avenue to translate this knowledge into action through internships and research. Examples of career opportunities include program design, implementation, and evaluation; policy analysis and administrative and managerial development; assessment of current and future human needs; and creation of strategies for social intervention and advocacy. In consultation with an advisor, each student will develop his or her own curriculum to build expertise in a specific topical area.

**Minor in Anthropology**

A minor in Anthropology allows students to apply the benefits of broad cross-cultural training to their chosen field of study. This minor is particularly helpful for students interested in international or global careers, or those who wish to apply the lessons of the past to their future pursuits. The 18-credit minor allows the flexibility to select the classes that best fit the student’s interest.

**Anthropology Honors Program**

The honors program is open by departmental permission to declared anthropology majors with a minimum 3.25 cumulative GPA and a 3.25 GPA in ANTH courses. Students who are thinking about attending graduate school in anthropology are encouraged to consider applying for this track. Students complete 6 credits of ANTH 483 Honors Thesis in Anthropology and two other honors courses. Students also may substitute graduate courses approved by the department for the two other honors courses if they meet the graduate school’s requirements for undergraduates taking graduate-
level courses. To determine what courses they should take, as well as how Honors Track courses will be integrated into existing requirements for the anthropology major, students must consult closely with their advisors.

To apply, students must petition the department honors committee for admission no earlier than the second semester of their sophomore year. An application must be filed with the Chair of the Department of Anthropology and should include an application form, a letter of intent, a description of the work plan, a full transcript, and two letters of recommendation from faculty members.

**Bachelor of Arts—Anthropology/General Anthropology Track**

**Liberal Studies:** As outlined in Liberal Studies section 46-47 with the following specifications:

- **Mathematics:** MATH 217
- **Social Science:** GEOG 104 (recommended)

**Liberal Studies Electives:** 6cr, no courses with ANTH prefix

**College:**

- Foreign Language Intermediate Level (1) 0-8

**Major:**

- 36 Required Courses:
  - ANTH 211 Cultural Anthropology 3cr
  - ANTH 222 Biological Anthropology 3cr
  - ANTH 233 Language and Culture 3cr
  - ANTH 244 Basic Archaeology 3cr
  - ANTH 456 Ethnographic Research Methods or 425 Archaeological Theory and Research Design 3cr
  - ANTH 480 Anthropology Seminar 3cr

**Controlled Electives:**

- Two courses in topical area ethnography, such as ANTH 271, 272, 273, 274, 314, 370 6cr
- Three additional ANTH electives (300 or 400 level) 9cr
- One additional ANTH elective (any level) 3cr

**Free Electives:** (2) 29-38

**Total Degree Requirements:** 120

(1) Intermediate-level foreign language may be included in Liberal Studies electives.

(2) State System Board of Governors policy states that at least 40 percent of the course work in a degree must consist of courses numbered 300 and above.

**Bachelor of Arts—Anthropology/Archaeology Track**

**Liberal Studies:** As outlined in Liberal Studies section 46-47 with the following specifications:

- **Mathematics:** MATH 217
- **Natural Science:** Geoscience courses recommended (1)
- **Social Science:** ANTH 213 (required), GEOG 104 (recommended)

**Liberal Studies Electives:** 6cr, no courses with ANTH prefix

**College:**

- Foreign Language Intermediate Level (1) 0-8

**Major:**

- **Required Courses:**
  - ANTH 211 Cultural Anthropology 3cr
  - ANTH 213 World Anthropology 3cr
  - ANTH 222 Biological Anthropology 3cr
  - ANTH 233 Language and Culture 3cr
  - ANTH 244 Basic Archaeology 3cr

**Controlled Electives:**

- Three methods courses: ANTH 320 (4, 5), 325, 415 9cr
- Two theory courses: ANTH 425, 480 6cr
- One archaeology area course, such as ANTH 315, 323, or 333 3cr
- Any two anthropology courses from the following: ANTH 250, 271, 272, 273, 274, 310, 314, 318, 370, 402, 484 (5), 486, 487, 488, 489, 490, 491, 492 9cr

**Free Electives:** (6, 7) 29-38

**Total Degree Requirements:** 120

(1) Determine the specific courses in consultation with academic advisor.

(2) Intermediate-level foreign language may be included in Liberal Studies electives.

(3) State System Board of Governors policy states that at least 40 percent of the course work in a degree must consist of courses numbered 300 or above.

**Bachelor of Arts—Anthropology/Applied Anthropology Track**

**Liberal Studies:** As outlined in Liberal Studies section 46-47 with the following specifications:

- **Mathematics:** MATH 217
- **Social Science:** GEOG 104 (recommended)

**Liberal Studies Electives:** 6cr, no courses with ANTH prefix

**College:**

- Foreign Language Intermediate Level (1) 0-8

**Major:**

- 36 Required Courses:
  - ANTH 211 Cultural Anthropology 3cr
  - ANTH 222 Biological Anthropology 3cr
  - ANTH 233 Language and Culture 3cr
  - ANTH 244 Basic Archaeology 3cr
  - Two methods courses: ANTH 360, 456 6cr
  - One theory course: ANTH 480 3cr

**Controlled Electives:**

- One area course from the following: ANTH 271, 272, 273, 274, 314, 370 3cr
- Two additional ANTH electives (300 or 400 level) 6cr
- ANTH 493 Internship in Anthropology or 6cr

**or 460 Ethnographic Field School (2) 29-38**

**Total Degree Requirements:** 120

(1) Intermediate-level foreign language may be included in Liberal Studies electives.

(2) An internship or ethnographic field school is highly desirable but may be replaced by 6cr of pragmatic skill courses upon approval of the advisor.

(3) State System Board of Governors policy states that at least 40 percent of the course work in a degree must consist of courses numbered 300 and above.

**Minor—Anthropology**

**Required Course:**

- ANTH 110 Contemporary Anthropology 3cr

**Controlled Requirements:**

- One core course from the following: 3cr
  - ANTH 211 Cultural Anthropology
  - ANTH 222 Biological Anthropology
  - ANTH 233 Language and Culture
  - ANTH 244 Basic Archaeology

**Controlled Electives:**

- Four additional courses in ANTH with at least 6cr 12cr
### Anthropology Honors Track  
**12**

**Prerequisites:** Declared major in anthropology, completion of 60cr, and permission of department honors committee, academic advisor, and department chair.

**Required Courses:**
- ANTH 483/H: Honors Thesis in Anthropology 6cr
- Two other honors courses 6cr (1)

(1) Students may also substitute graduate courses approved by the department for the two other honors courses if they meet the graduate school’s requirements for undergraduates taking graduate-level courses.

### Cultural Competencies Certificate

The Cultural Competencies Certificate prepares you for life and professional practice in culturally diverse settings. The world is now global and the Cultural Competencies Certificate assists you in adopting a critical and self-reflective approach to differences in identity, as defined by, for example, race, ethnicity, gender, class, age, religion, ability, and sexual orientation. Since several of these identities are combined in any culture, the certificate allows you to select a series of courses that best meet your needs and careers. The certificate provides the knowledge, skills, and attitudes to increase your effectiveness in relating across cultural differences and in increasingly diverse environments in this country and abroad.

The core courses establish the foundations needed to appreciate diversity and cultural competency, while the electives allow you to explore the facets of diversity that will best-prepare you for life in your global work place.

### Certificate Cultural Competencies  
**12**

**Core Courses** 3
- ANTH 110 Contemporary Anthropology or 211 Cultural Anthropology

**One Culture Area Course** 3
- ANTH 271 Culture Area Studies: Africa 3cr
- ANTH 272 Culture Area: China 3cr
- ANTH 273 Culture Area Studies: Southeast Asia 3cr
- ANTH 274 Culture Area Studies: Latin America 3cr
- ANTH 314 Contemporary Native American Cultures 3cr
- ANTH 370 Latinos and Diasporas 3cr

**Electives** 6
- ANTH 213 World Archaeology 3cr
- ANTH 240 Introduction to Global Health 3cr
- ANTH 316 Anthropology of Religion 3cr
- ANTH 350 Anthropology of Gender 3cr
- ANTH 352 Anthropology of Human Rights 3cr
- ANTH 420 Environmental Anthropology 3cr
- ANTH 444 Medical Anthropology 3cr
- ANTH/SOC 450 Health Disparities 3cr
- ASIA 200 Introduction to Asian Studies 3cr
- BCOM 342 Intercultural Business Communication 3cr
- COMM 230 Global Media and Communication 3cr
- CRIM 410 Race, Ethnicity, Social Structure, and Crime 3cr
- ECON 338 Poverty in Africa 3cr
- EDUC 499 Multicultural/Multilingual Education 3cr
- ENGL 336 Language, Gender, and Society 3cr
- ENGL 344 Ethnic American Literature 3cr
- ENGL 348 African American Literature 3cr
- ENGL 350 Gender and Sexual Orientation in Literature, Theory, and Film 3cr
- ENGL 385 Advanced Studies in Women’s Literature 3cr
- FDNT 470 Human Food Consumption Patterns 3cr
- GEOG 104 World Geography: Global Context 3cr
- GEOG 230 Cultural Geography 3cr
- HIST 331 Modern Middle East 3cr
- HIST 338 The History of Iran 3cr
- HIST 365 History of Black America since Emancipation 3cr
- HIST 369 Women in America 3cr
- HIST 373 History of the Modern American Working Class 3cr
- HIST 434 History of Modern China 3cr
- HIST 437 History of Modern Japan 3cr
- JRN 375 World News Coverage 3cr
- LAS 281/481 Special Topics in Latin American Studies 3cr
- LAS 350 The Mayas: Culture, Literature, and Numbers 3cr
- LAS 480 Latin American Studies Seminar 3cr
- LGBT 200 Introduction to Lesbian, Gay, Bisexual, Transgender, and Queer Studies 3cr
- LGBT 400 Queer Theory 3cr
- MGMT/MKTG 350 International Business 3cr
- PNAF 131 Introduction to Pan-African Studies 3cr
- RLST 110 World Religions 3cr
- RLST 245 Women and Religion 3cr
- RLST 360 African Religions 3cr
- RLST 365 Native North American Religions 3cr
- RLST 370 Religions: China and Japan 3cr
- RLST 374 Religion and Culture: Their Interaction 3cr
- RLST 375 Religions of India 3cr
- RLST 378 Hinduism 3cr
- RLST 380 Islam 3cr
- RLST 385 Christianity 3cr
- RLST 402 Topics in Asian Religions 3cr
- RLST 403 Topics in Indigenous Religions 3cr
- SOC 314 Sociology of Native Americans 3cr
- SOC 361 Social Stratification 3cr
- SOC 362 Racial and Ethnic Minorities 3cr
- SOC 363 Sociology of Gender 3cr
- SOC 417 Global Service Learning 3cr
- SOC 452 Disability and Society 3cr
- SPAN 244 Modern Mexico 3cr
- SPAN 342 Spanish Cultures from the 19th Century to the Present 3cr
- SPAN 344 Spanish-American Cultures from the 19th Century to the Present 3cr
- WGS 200 Introduction to Women’s and Gender Studies 3cr
- WGS 301 Asian American and Asian Diasporic Women’s Literature 3cr
- WGS 400 Feminist Theories 3cr

### Department of Economics

**Website:** [www.iup.edu/economics](http://www.iup.edu/economics)

**David B. Yerger, Chair**

Economics provides a background and educational base that open a broad range of professional, educational, and vocational opportunities. As part of a Humanities and Social Sciences degree, a bachelor of arts degree program in economics provides a liberal arts education, as well as professional and technical training. Indeed, many students completing an undergraduate major in economics do not pursue careers as professional economists; they enter such fields as law, management, finance, and labor relations. By helping to develop a student’s ability to think and communicate, economics provides a firm foundation upon which the student can build any one of a large number of possible careers.

Three different degree programs are available: a bachelor of arts program in economics that prepares students for immediate employment or graduate school; a bachelor of arts degree program in economics/pre-law for students who wish to attend law school; and the bachelor of science in education degree that prepares students to teach economics and other social sciences in secondary schools.

Either ECON 101 or 121 counts as a Liberal Studies social science course. However, ECON 101 is intended for students who will take only one course in the field. Students who anticipate taking more than one economics course should schedule ECON 121. ECON 101 will not count toward either a major or minor in economics and may not be taken after the successful completion of, or in concurrent registrations with, any other economics course.

Economics majors are encouraged to minor in one of the other social sci-
Economics Honors Program

The honors program is open by departmental permission to economics and economics/pre-law majors in the College of Humanities and Social Sciences with a minimum 3.25 cumulative GPA and a 3.25 GPA in economics courses. Students complete ECON 355*, ECON 356/H, and 456/W. In addition, students must choose one class from the following: CRIM 306, FIN 310, FIN 315, GEOG/RGPL 316, HIST 487/H, MATH 341, MATH 363, MATH 371, MATH 411, MATH 412, MATH 416, PLSC 370, PLSC 422, or SOC 460. Students must earn at least a grade of “C” in each course completed for the track. Students should consult their advisors to determine how Honors Track courses may be integrated into existing requirements for the economics or economics/pre-law majors.

*In practice, MATH 214, 216, or 217 can be substituted for ECON 355.

To apply, complete the Economics Honors Track form, which is available in the Department of Economics office. In addition, a change of major form must be filed.

Bachelor of Arts—Economics

**Liberal Studies:** As outlined in Liberal Studies section with the following specifications:
Mathematics: MATH 121 (1)
Social Science: ECON 121
Liberal Studies Electives: 6cr, no courses with ECON prefix

**College:**
Foreign Language Intermediate Level (2)

**Major:**
Required Courses:
- ECON 122 Principles of Microeconomics 3cr
- ECON 355 Statistics for Economists (3) 3cr
- ECON 421 Macroeconomic Analysis 3cr
- ECON 422 Microeconomic Analysis 3cr

Controlled Electives:
- Five other ECON courses (4, 5, 6) 15cr

Free Electives:
37-46

Total Degree Requirements:
120

(1) MATH 115 or 125 may be substituted for MATH 121.
(2) Intermediate-level foreign language may be included in Liberal Studies electives.
(3) MATH 214, 216, 217, or 363 may be substituted for ECON 355.
(4) No more than 6cr of internship credit may be applied toward major.
(5) No more than one ECON controlled elective may be a 200-level course.
(6) Neither 101 nor 143 counts as an ECON controlled elective.

Bachelor of Arts—Economics/Pre-law Track

**Liberal Studies:** As outlined in Liberal Studies section with the following specifications:
Mathematics: MATH 121 (1)
Social Science: ECON 121
Liberal Studies Electives: 6cr, no courses with ECON prefix

**College:**
Foreign Language Intermediate Level (2)

**Major:**
Required Courses:
- ECON 122 Principles of Microeconomics 3cr
- ECON 355 Statistics for Economists (3) 3cr
- ECON 421 Macroeconomic Analysis 3cr
- ECON 422 Microeconomic Analysis 3cr

Controlled Electives:
- Four other ECON courses (4, 5, 6) 12cr

Other Requirements: Pre-law Interdisciplinary Track

Seven courses, including at least one from each of six areas:

**Business:**
- ACCT 201, ACCT 202, BLAW 235

**Criminology:**
- CRIM 210, 215, 225, 255

**English:**
- ENGL 212, 227, 265, 310, 321

**History:**
- HIST 320, 341, 342, 346, 475

**Philosophy:**
- PHIL 101, 122, 130, 221, 270, 320, 450

**Political Science:**
- PLSC 358, 359, 361, 405

Free Electives: 19-34

Total Degree Requirements: 120

(1) MATH 115 or 125 may be substituted for MATH 121.
(2) Intermediate-level foreign language may be included in Liberal Studies electives.
(3) MATH 214, 216, 217, or 363 may be substituted for ECON 355.
(4) No more than 6cr of internship credit may be applied toward major.
(5) No more than one ECON controlled elective may be a 200-level course.
(6) Neither 101 nor 143 counts as an ECON controlled elective.

Bachelor of Science in Education—Social Studies Education/Economics Track (*)

Liberal Studies: As outlined in Liberal Studies section with the following specifications:
Mathematics: 3cr
Natural Science: Option II
Social Science: ANTH 110, ECON 121, PSYC 101
Liberal Studies Electives: 6cr, GEOG 230, SOC 337, no course with ECON prefix

College:
3 additional cr of MATH 100 level or above (in addition to Liberal Studies MATH) (1)

Preprofessional Education Sequence:
- ACE 103 Digital Instructional Technology 3cr
- EDSP 477 Assessment of Student Learning: Design and Interpretation of Educational Measures 3cr
- EDUC 242 Pre-student Teaching Clinical Experience I 1cr
- EDUC 441 Student Teaching 12cr
- EDUC 442 School Law 1cr
- EDUC 455 Teaching of Social Studies in Secondary Schools 3cr

Major:
- Required Courses:
  - ECON 122 Principles of Microeconomics 3cr
  - ECON 339, 345, 346, 350, 351 15cr

  (ECON 351 is currently an inactive course.)

  (ECON 351 is currently an inactive course.)

Microeconomic courses: ECON 330, 331, 332, 333, 334, 335, 336, 361, 373, 383

Other Requirements: Pre-law Interdisciplinary Track

Social Studies Distribution:
- ACCT 201, ACCT 202, BLAW 235
- HIST 204 United States History to 1877 3cr
- HIST 205 United States History since 1877 3cr
- PLSC 111 American Government 3cr
- PLSC 280 or 285 Comparative Government I: Western Political Systems or Comparative Government II: 3cr

TOTAL DEGREE REQUIREMENTS: 120
the traditional concern of literary study—the careful analysis of canonized constantly evolving field. BA majors will have the opportunity to pursue Social Research Methods I 3cr
PLSC 422 International Law and Organization 3cr
MATH 416 Time Series Analysis 3cr
MATH 411 Univariate Data Analysis 3cr
MATH 341 Differential Equations 3cr
GEOG 316/RGPL 316 Introduction to Geographic
MATH 371 Linear Algebra 3cr
MATH 363 Mathematical Statistics I 3cr

(2) Neither 101 nor 143 counts as an ECON controlled elective.

(1) Students are required to take an additional 3cr of MATH beyond the Liberal Studies requirement for a total of 6cr, all of which must be at the 100 level or above.

(2) History is the recommended choice for a minor. However, students may complete a minor in any of the other social studies fields included in the social studies education certification. Choosing a field other than history may require additional credits.

Minors—Economics 18

Required Courses:
ECON 121 Principles of Macroeconomics 3cr
ECON 122 Principles of Microeconomics 3cr

Controlled Electives:
Four courses from ECON 200 or higher with at least 6cr 300-level or higher (1, 2) 12cr
(1) MATH 214, 216, 217, or another quantitative class approved by the Chair may be substituted for ECON 355. If one of the previously noted MATH classes is substituted for ECON 355, it will not count as a 300-level or higher course.
(2) Neither 101 nor 143 counts as an ECON controlled elective.

Economics Honors Track 12

Required Courses:
ECON 355 Statistics for Economists (1) 3cr
ECON 356/H Introduction to Econometrics 3cr
ECON 456/W Advanced Econometrics 3cr
One course from the following:
CRIM 306 Criminological Research Methods 3cr
FIN 310 Fundamentals of Finance 3cr
FIN 315 Financial Analysis Using Electronic Spreadsheets 3cr
GEOG 316/RGPL 316 Introduction to Geographic
Information Systems 3cr
HIST 487/H Honors Colloquium in History 3cr
MATH 341 Differential Equations 3cr
MATH 363 Mathematical Statistics I 3cr
MATH 371 Linear Algebra 3cr
MATH 411 Univariate Data Analysis 3cr
MATH 412 Multivariate Statistics 3cr
MATH 416 Time Series Analysis 3cr
PLSC 370 The Practice of Public Administration 3cr
PLSC 421 International Law and Organization 3cr
SOC 460 Social Research Methods I 3cr

(1) MATH 214, 216, or 217 may be substituted for ECON 355.

Department of English

Website: www.iup.edu/english
Gian S. Pagnucci, Chair

The program of studies in the English Department at IUP focuses on critical thinking and effective reading and writing at all levels. English majors study a wide variety of subjects ranging from literary theory to practical pedagogy in an atmosphere that encourages and fosters a high degree of professional commitment.

The English Department’s bachelor of arts degree program in English reflects the diversity of subject matter, methods, and purposes of this vital, constantly evolving field. BA majors will have the opportunity to pursue the traditional concern of literary study—the careful analysis of canonized works—as well as encounter and analyze texts by members of traditionally marginalized groups and texts that are nontraditional or innovative in form and content. The department encourages students to design their course of study so that they can be active and capable members of the global community and effective contributors to the multicultural workplace. To these ends, the department is committed to promoting and supporting an intellectual environment in which minority writers, nontraditional texts, and a variety of critical perspectives are an integral part of the curriculum.

After completing the introductory course in English (ENGL 122), all BA majors will take a core of 15 credits: 6 credits of historical/regional literary survey courses; 3 credits of a writing course; 3 credits of a rhetoric, speech, or linguistics course; and 3 credits of an upper-level capstone course. In addition to these core courses, all BA majors will take 6 credits of English elective courses and declare a track of 15 credits, chosen from the following: Writing Studies or Pre-law.

Since the BA program can be completed with 36 credits of course work, students will have 25-31 credits outside of the Liberal Studies requirements to develop other interests, including a second major or a minor. In addition to creating these sorts of academic connections, The department encourages its students to explore and enhance links between their scholarship and their professional goals by seeking an internship in their junior or senior year. Students should explore their options carefully with their advisors.

English/Literature/Culture Track

The Literature/Culture Track enables students to design a course of study in the history, meaning, function, and aesthetics of texts of all kinds. A student who completes this major will be able to identify the unique material, symbolic, formal, and aesthetic qualities of texts; apply the analytical skills and methods best suited to comprehend the significance of texts; analyze the ways that texts interact with audience, culture, medium, and ideology; evaluate the role of theory—its methods, history, politics, and functions—in textual analysis; and examine the ways in which questions of race, gender, sexual orientation, and identity affect interactions with both traditional and nontraditional texts and theory. The Literature/Culture Track prepares students for any profession that requires strong analytic, communication, cultural, and aesthetic skills, and for academic study in literary and cultural studies.

English/Writing Studies Track

The Writing Studies Track enables students to design a course of study in the theory and practice of writing in a variety of genres. A student who completes this track will be able to demonstrate skills in the analysis, construction, and presentation of texts; to identify and apply productive, effective, and creative approaches to writing tasks for diverse audiences; and to create a portfolio of writing for use in applying to graduate programs or for professional positions. The Writing Studies Track prepares students for any career that requires professional writing skills.

English/Pre-law Track

This track enables students to design a course of study in the history and practice of persuasive communication, interpretation, and the cultural power of literary representation. A student who completes the Pre-law Track will be able to identify, evaluate, and apply varied forms of analysis and argumentation; read, write, speak, and think in thoughtful, informed, persuasive fashion; and understand and distinguish the culturally and historically specific relationships among language, cultural power, and interpretation, both in terms of persuasive writing and speech and the literary representations of minorities. The track should also enable students to do well on law school admissions essays and examinations in law school.

Education Program

The English Department offers a program leading to the bachelor of science in education degree program in English education. This program has been accredited by the National Council for Accreditation of Teacher Education. Graduates are prepared to teach in middle, junior high, and senior high schools.
English education majors fulfill all of the requirements for state certification, including practical experience in methods courses and student teaching; content preparation in a variety of literature, language, and composition courses; and philosophical background in current theories of teaching. Although most students choosing the English education major will be best prepared for the secondary school classroom, those who opt not to teach will find that their speaking, writing, and management skills may also be useful to the media, governmental services, and business.

Program requirements are available at the English Department office and in the English Education Handbook. Majors must maintain a minimum cumulative GPA of 3.0. They must be formally admitted to English Education, a process that includes application and screening within the English Department as well as an application to the teacher certification program in the College of Education and Communications. This screening involves review of the student’s portfolio of written work and faculty evaluations as well as an interview with English education faculty. Refer to the section “Admission to Teacher Education and Certification” in the College of Education and Communications section of this catalog and the English Education Handbook.

**Minor in English**

To minor in English, 18 credits in English courses are required beyond the Liberal Studies requirement of ENGL 101 and 202. At least 6 of these credits must be numbered 300 level or higher. ENGL 121 may be used to fulfill part of the 18 credits required. Of these 18 credits, no more than 6 credits may be transferred to IUP from another university.

**English Honors Program**

The honors program is open by departmental permission to declared English majors with a minimum 3.25 cumulative GPA and a 3.5 GPA in English courses.

To apply, students must submit a letter of application and a list of English courses taken (with instructors’ names) to the Chair of the Honors Track program. To be accepted, students must receive favorable evaluations from a majority of professors of courses taken and approval by the Honors Track program committee.

Students must complete one upper-level (300-400) H-designated course (3 credits) or ENGL 483/H Honors Thesis in English and ENGL 484 Topics in English Studies. In conjunction with ENGL 484, students must take ENGL 485/H Honors Portfolio.

**Bachelor of Arts—English/Literature/Culture Track**

<table>
<thead>
<tr>
<th>Liberal Studies:</th>
<th>As outlined in Liberal Studies section with the following specifications:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humanities-Literature:</td>
<td>ENGL 122</td>
</tr>
<tr>
<td>Mathematics:</td>
<td>3cr</td>
</tr>
<tr>
<td>Liberal Studies Electives:</td>
<td>6cr, no courses with ENGL prefix</td>
</tr>
<tr>
<td>College:</td>
<td>0-6</td>
</tr>
<tr>
<td>Major:</td>
<td>36</td>
</tr>
<tr>
<td>Required Courses:</td>
<td></td>
</tr>
<tr>
<td>Two literary survey courses from the following:</td>
<td>ENGL 210, 211, 212, 213, 226</td>
</tr>
<tr>
<td>One writing course from the following:</td>
<td>ENGL 220, 221, 222</td>
</tr>
<tr>
<td>One literacies course from the following:</td>
<td>ENGL 208, 308, 313</td>
</tr>
<tr>
<td>Capstone course:</td>
<td>ENGL 484</td>
</tr>
<tr>
<td>Controlled Electives:</td>
<td>(2, 3)</td>
</tr>
<tr>
<td>Four courses from the following:</td>
<td>ENGL 203, 208, 210, 211, 212, 213, 225, 226, 265, 308, 310, 313, 328, 329, 330, 332, 333, 335, 336, 337, 340, 341, 342, 343, 344, 348, 349, 350, 354, 361, 385, 386, 387, 390, 396, 398, 430, 434, 456, 440, 450, 460, 461, 462, 463, 493</td>
</tr>
<tr>
<td>Three courses with ENGL prefix except ENGL 100, 101, 121, 122, and 202</td>
<td>12cr</td>
</tr>
<tr>
<td>Free Electives:</td>
<td>31-38</td>
</tr>
<tr>
<td>Total Degree Requirements:</td>
<td>120</td>
</tr>
<tr>
<td>(1) Intermediate-level foreign language may be included in Liberal Studies electives.</td>
<td></td>
</tr>
<tr>
<td>(2) An internship, aside from counting for up to 6cr toward the major, makes the BA degree recipient much more employable by providing job experience. Students should see the English BA internship director for advice about available openings.</td>
<td></td>
</tr>
</tbody>
</table>

**Bachelor of Arts—English/Writing Studies Track**

| Liberal Studies: | As outlined in Liberal Studies section with the following specifications: |
| Humanities-Literature: | ENGL 122 |
| Mathematics: | 3cr |
| Liberal Studies Electives: | 6cr, no courses with ENGL prefix |
| College: | 0-8 |
| Major: | 36 |
| Required Courses: | |
| Two literary survey courses from the following: | ENGL 210, 211, 212, 213, 226 |
| One writing course from the following: | ENGL 220, 221, 222 |
| One language course from the following: | ENGL 208, 308, 313 |
| Capstone course: | ENGL 484 |
| Controlled Electives: | (2) |
| Two courses from craft and genre: | ENGL 220, 221, 222, 321, 325, 326, 327, 422, ENGL/THTR 347 |
| One course from Forms and Theories: | ENGL 308, 335, 340, 341, 342, 343, 450 |
| Two courses from Studio/Portfolio/Career Preparation: | ENGL 360, 420, 483, 493 |
| Two courses with ENGL prefix except ENGL 100, 101, 121, 122, and 202 | 6cr |
| Free Electives: | 29-38 |
| Total Degree Requirements: | 120 |
| (1) Intermediate-level foreign language may be included in Liberal Studies electives. |
| (2) An internship, aside from counting for up to 6cr toward the major, makes the BA degree recipient much more employable by providing job experience. Students should see the English BA internship director for advice about available openings. |

**Bachelor of Arts—English/Pre-law Track**

| Liberal Studies: | As outlined in Liberal Studies section with the following specifications: |
| Humanities-Literature: | ENGL 122 |
| Mathematics: | 3cr |
| Liberal Studies Electives: | 6cr, no courses with ENGL prefix |
| College: | 0-8 |
| Major: | 36 |
| Required Courses: | |
| Two literary survey courses from the following: | ENGL 210, 211, 212, 213, 226 |
| One writing course from the following: | ENGL 220, 221, 222 |
| One language course from the following: | ENGL 208, 308, 313 |
| Capstone course: | ENGL 484 |
| Controlled Electives: | (2) |
| One English Studies/Pre-law required course: | ENGL 265 |
| Capstone course: | ENGL 484 |
| Controlled Electives in English/Pre-law: | (2, 3) |
| Two courses in persuasion from the following: | 18cr |
ENGL 310, 313, 321
One writing course from the following: ENGL 220, 221, 222, 325, 326, 327, 422
One course focusing on language, cultural power, and interpretation from the following: ENGL 225, 308, 336, 344, 348, 350, 385, 396, 450, 463
Two courses with ENGL prefix except ENGL 100, 101, 121, 122, or 202

Other Requirements: Pre-law Interdisciplinary Track 15-21
Seven courses, including at least one from each of six areas:
Business: ACCT 201, ACCT 202, BLAW 235
Criminology: CRIM 210, 215, 225, 255
Economics: ECON 121, 122, 332
History: HIST 320, 341, 342, 346, 475
Philosophy: PHIL 101, 122, 130, 221, 270, 320, 450
Political Science: PLSC 358, 359, 361, 405

Free Electives: 8-23
Total Degree Requirements: 120

Bachelor of Science in Education—English Education (*)
Liberal Studies: As outlined in Liberal Studies section with the following specifications:
Humanities-Literature: ENGL 122
Mathematics: 3cr, MATH 101 or higher
Social Science: PSYC 101
Liberal Studies Elective: 3cr, MATH (1), no courses with ENGL prefix
College: Foreign Language Intermediate Level or Free Electives 6
College: Preprofessional Education Sequence: ACE 103 Digital Instructional Technology 3cr
EDSP 102 Educational Psychology 3cr
Professional Education Sequence: EDAX 301 Education of Students with Disabilities in Inclusive Secondary Settings 2cr
EDSP 477/577 Assessment of Student Learning: Design and Interpretation of Educational Measures 3cr
EDUC 242 Pre-student Teaching Clinical Experience I 1cr
EDUC 342 Pre-student Teaching Clinical Experience II 1cr
CHSS 343 Applied Practice in Secondary English Language Arts 1cr
EDUC 441 Student Teaching 12cr
EDUC 442 School Law 1cr
EDUC 452 Teaching of English and Communication in the Secondary School 3cr

Major: Required Courses:
ENGL 212 American Literature: Beginnings to 1900 3cr
ENGL 220 Advanced Composition I 3cr
ENGL 314 Speech and Communication in the Secondary English Classroom 3cr
ENGL 323 Teaching Literature and Reading in the Secondary School 3cr
ENGL 324 Teaching and Evaluating Writing 3cr
ENGL 329 The History of the English Language 1cr
ENGL 415/515 English Language Studies for Teachers 3cr
ENGL 418/518 Young Adult Literature 3cr
ENGL 426/526 ESL Methods and Materials 3cr
ENGL 434 Shakespeare 3cr

Controlled Electives: (2)
One Film Studies Track course 3cr
One British literature survey course from ENGL 210 or 211 3cr
One Literature/Cultural Track course 3cr
Choose one course from the following LC Track:
ENGL 213, 225, 226, 344, 348, 350, 385, 396, 437, 463 3cr
One general English elective (any track) 3cr

Total Degree Requirements: 122-123
(*) See requirements leading to teacher certification, titled “3-Step Process for Teacher Education” in the College of Education and Communications section of this catalog.
(1) The second MATH course is a teacher certification requirement and counts as Liberal Studies elective credits for mathematics.
(2) One of the controlled English-elective track courses (either the Literature/Cultural Track or the general English elective from any track) must be a Global and Multicultural course; this requirement is separate from and in addition to the global and multicultural Liberal Studies requirement.

English Honors Track 7
Prerequisites: Declared major in English, completion of ENGL 101, 122, and 202; 15cr in the major, including at least two survey courses; and permission of English Honors Track program committee

Required Courses:
ENGL 485/H Honors English Portfolio 1cr
6cr in any combination of the following options:
ENGL 483/H Honors Thesis in English 0-6cr
Any H-designated English course 0-6cr

Department of Foreign Languages
Website: www.iup.foreignlanguages
Dr. Charles McCreary, Chair

The Department of Foreign Languages offers a varied curriculum designed to provide not only basic language instruction but also the more advanced competencies needed by language specialists and students hoping to take advantage of an international study experience.

Foreign Language Certificate concentrating in one of the following: Chinese, French, German, Japanese, or Spanish

The Foreign Language Certificate is an 18-credit program aimed at those who want to add a foreign language credential to their main academic preparation, either as a bachelor’s degree in progress or in a postbaccalaureate setting. The certificate is an excellent opportunity for students in any college of the university, particularly those in colleges where foreign language study is not generally required, such as the Eberly College of Business and Information Technology and the College of Health and Human Services.

This certificate offers students a variety of options for fulfilling the requirements. In addition to completing the course sequence, students may earn credits toward the certificate by taking an Advanced Placement Exam, or they may earn ACE credits. Students with previous foreign language experience who do not earn credits through Advanced Placement or ACE are required to take a departmentally-approved language placement exam for possible exemption from some courses. Students are allowed to exempt out of up to 12 credits of the initial language sequence either by exam or through transfer credits from another institution. All students, including returning, graduate, and transfer students, are required to take at least six credits at IUP from Foreign Language levels 220 and above.

Certificate—Foreign Language
concentrating in one of the following:
Chinese, French, German, Japanese, or Spanish

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(A) Initial Language Sequence
Courses with these numbers are offered in CHIN, FRNC, GRMN, JAPN, and SPAN
101  4cr
102  4cr
201  4cr

(B) Intermediate Language Sequence
To earn a:
• Foreign Language Certificate in Spanish, students must complete SPAN 220 and 3 additional credits above the 201 level. The 3 additional credits may be either SPAN 230 or another course related to Spanish, which must be approved by the Department of Foreign Languages Chair or the Chair’s designee.
• Foreign Language Certificate in French, students must complete FRNC 220 and 3 additional credits above the 201 level. The 3 additional credits may be either FRNC 230 or another course related to French, which must be approved by the Department of Foreign Languages chair or the chair’s designee.
• Foreign Language Certificate in German, students must complete GRMN 220 and 3 additional credits above the 201 level. The 3 additional credits may be either GRMN 230 or another course related to German, which must be approved by the Department of Foreign Languages chair or the chair’s designee.
• Foreign Language Certificate in Japanese, students must complete 6 credits above the 201 level in course work related to Japanese language or culture. The 6 additional credits must be approved by the Department of Foreign Languages chair or the chair’s designee.

Courses taken in a study abroad context may also count toward the certificate. Transfer credit received through study abroad experiences must be approved by chair of the Department of Foreign Languages or the chair’s designee or previously approved through the Admissions–Transfer Services Office.

(C) Oral Proficiency Interview Exam
By the midterm of the final semester of course work for the certificate, students will be required to complete the Oral Proficiency Interview (OPI) or the Oral Proficiency Interview by Computer (OPIc), administered by Language Testing International (LTI). The OPI and OPIc provide an independent rating of the student’s oral skills in the language, which may be useful for employment purposes. There is a fee for the OPI and the OPIc, for which students will be responsible.

French Placement
Students with no previous French study will be placed in FRNC 101, a class reserved for true beginners. Students with previous French study in high school or college will be placed into the appropriate course by means of the online WebCAPE placement test. This test may be taken more than once before enrolling in French courses; it is free of charge for IUP students. Instructions on how to take the online WebCAPE test are available on the departmental website and in print in the Department of Foreign Languages office (Sutton Hall). As deemed necessary by the individual student or French faculty, the proposed WebCAPE placement may be further refined: Students’ writing and speaking proficiency may be additionally assessed by one or more faculty members in the French program in the Department of Foreign Languages. Each student’s individual requirements and the judgment of the classroom instructors will also be considered in placement. No student will be allowed to register for or take a D/F repeat in FRNC 101, 102, or 201 when credit has already been received for a higher numbered course.

IUP Course Credit for Acquired Proficiency
Incoming students may receive course credit for their oral proficiency levels in French through the American Council on Education (ACE) Credit Recommendation Service and Language Testing International (LTI), the assessment agency for the American Council on the Teaching of Foreign Languages (ACTFL). Students who have taken an ACTFL Oral Proficiency Interview (OPI) through LTI, received a proficiency rating by LTI, and received credit recommendation by ACE may receive the following course credits in French at IUP:

<table>
<thead>
<tr>
<th>ACTFL Oral Proficiency Ratings (rated by LTI)</th>
<th>ACE Credit Recommendations</th>
<th>IUP French Course Equivalencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intermediate-Mid</td>
<td>4 Lower Division credits</td>
<td>Either FRNC 102 or 201, depending on placement on departmental written exam</td>
</tr>
<tr>
<td>Intermediate-High/ Advanced Low</td>
<td>8 Lower Division credits</td>
<td>FRNC 201 and 220</td>
</tr>
<tr>
<td>Advanced-Mid or higher</td>
<td>10 Lower Division credits</td>
<td>FRNC 201, 220, and approved conversation elective</td>
</tr>
</tbody>
</table>

To begin the process, students must contact LTI by e-mail (testing@ languagetesting.com) to request an ACE College Credit Recommendation by OPI Examination information package and application. There is a fee for the OPI and an ACE application fee to be paid by the candidate.

Study Abroad French Studies Summer Programs: Aix-en-Provence, France/Intensive French Language (Aix-Marseille University) and the Cours d’été, Nancy, France
The Department of Foreign Languages has partnered with the Office of International Education to establish two study abroad experiences in Aix-en-Provence and in Nancy, France. All students having successfully completed FRNC 102 are invited to consider continuing their study of French in France. Students seeking the certificate or minor in French are strongly encouraged to study abroad in one of our centers in France.

These summer programs propose a five or six-week session, including up to 25 hours of weekly language instruction as well as cultural field trips or activities, and weekly debriefing sessions with faculty from the IUP Department of Foreign Languages. Housing options include accommodations in university housing, apartments, and homestay with a host family. Both programs offer 6 hours of transfer credits that may be used toward completion of any foreign language requirement, the certificate in French, or the French minor.

For further information about cost and application procedures, contact the Department of Foreign Languages.

Minor—French (1)  18-19

Required Courses:
FRNC 201 Intermediate French (2)  4cr
FRNC 220 Intermediate French Conversation  3cr
FRNC 230 Intermediate Composition and Grammar  3cr
One IUP French elective course  3cr
Two or three courses at IUP or an accredited institution in the US or abroad; transfer or ACE credit; individualized instruction or independent study courses (3,4)  6-9cr

(1) At least nine of the 18 or 10 of the 19 credits must be taken at IUP. No more than 9cr transfer or study abroad credits will be counted toward the French minor; any additional transfer or study abroad credits will count as free electives.
(2) If a student is exempted from FRNC 201 based on his/her score on the
French placement test, the student must instead take a 200- or 300-level course in place of FRNC 201.

(3) At least 6cr of the minor must be upper-division courses, generally those numbered 300 and above or otherwise designated as upper-division.

(4) All courses taken outside of IUP must be approved by the French minor advisor. Various study abroad opportunities in France and French-speaking countries are available to students through departmental programs and offerings provided by the Office of International Education (OIE).

**German**

**Study Abroad**
The department encourages all students who study German at IUP to consider study abroad for one or two semesters. To provide this opportunity at a relatively modest cost, the university has arranged an exchange of students between Duisburg University and IUP. By participating in this or other approved programs, students can earn from 12 to 14 credits per semester. For information, contact the Department of Foreign Languages.

**Minor—German (1)**  
18-19

**Required Courses:**
- GRMN 201 Intermediate German (2)  4cr
- GRMN 220 Intermediate German Conversation  3cr
- GRMN 230 Intermediate German Composition and Grammar  3cr
- One IUP German elective course  3cr

Two or three courses at IUP or an accredited institution in the US or abroad; transfer credit; individualized instruction or independent study courses (3, 4).  6-9cr

(1) At least nine of the 18 or 10 of the 19 credits must be taken at IUP. No more than 9cr transfer or study abroad credits will be counted toward the German minor; any additional transfer or study abroad credits will count as free electives.

(2) If a student is exempted from GRMN 201 based on his/her score on the German placement test, the student must instead take a 200- or 300-level course in place of GRMN 201.

(3) At least 6cr of the minor must be upper-division courses, generally those numbered 300 and above or otherwise designated as upper-division.

(4) All courses taken outside of IUP must be approved by the German minor advisor. Various study abroad opportunities in Germany are available to students through the Office of International Education (OIE).

**IUP Course Credit for Acquired Proficiency**
Incoming students may receive course credit for their oral proficiency levels in German through the American Council on Education (ACE) Credit Recommendation Service and Language Testing International (LTI), the assessment agency for the American Council on the Teaching of Foreign Languages (ACTFL). Students who have taken an ACTFL Oral Proficiency Interview (OPI) through LTI, received a proficiency rating by LTI, and received credit recommendation by ACE may receive the following course credits in German at IUP:

<table>
<thead>
<tr>
<th>ACTFL Oral Proficiency Ratings (rated by LTI)</th>
<th>ACE Credit Recommendations</th>
<th>IUP German Course Equivalencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intermediate-Mid</td>
<td>4 Lower Division credits</td>
<td>Either GRMN 102 or 201, depending on placement on departmental written exam</td>
</tr>
<tr>
<td>Intermediate-High/ Advanced Low</td>
<td>8 Lower Division credits</td>
<td>GRMN 201 and 220</td>
</tr>
<tr>
<td>Advanced-Mid or higher</td>
<td>10 Lower Division credits</td>
<td>GRMN 201, 220, and approved conversation elective</td>
</tr>
</tbody>
</table>

To begin the process, students must contact the Foreign Languages Department.

**Spanish**
The department offers a varied curriculum to provide not only basic language instruction in Spanish, but also the more advanced competencies needed by language specialists and students hoping to take advantage of an international study experience. For the undergraduate Spanish major, the department has two degree programs: the BSEd and the BA program with a major in Spanish.

Students majoring in Spanish will acquire proficiency in all phases of the language and enter more deeply into the history, culture, and literature of Spanish-speaking countries. Spanish majors generally find employment in government work, librarianship, journalism and public relations, foreign trade, airlines, tourism, business, criminology, and teaching. Students choosing careers as secondary school teachers will find the close supervision and advanced methodology offered by the department a distinct asset.

**Placement**
Students with previous Spanish study in high school will be placed into the appropriate course levels by means of a written departmental exam, administered before the beginning of the semester. In addition, students judged to be native or heritage speakers (either through the written placement exam or by classroom instructors), will have their speaking proficiency assessed by an oral proficiency tester in the Department of Foreign Languages who is currently certified by the American Council on the Teaching of Foreign Languages (ACTFL). Students who receive an advisory oral proficiency rating of Advanced-Mid level on the oral proficiency scale developed by ACTFL will not be permitted to enroll in SPAN 101, 102, 201, or 220. Students who receive an advisory oral proficiency rating of Advanced-Mid level or higher will not be permitted to enroll in SPAN 101, 102, 201, 220, 350, or 450. Students who are rated in the advanced range are encouraged to seek course credit for their oral proficiency levels by applying through the American Council on Education (ACE) Credit Recommendation Service in conjunction with Language Testing International (LTI) (see next section). In the case of Spanish majors and minors who place out of the courses listed as a result of having the advanced-level oral proficiency and choose NOT to pursue ACE credits, SPAN 201 will be waived (no credits granted), and students will need to seek other Spanish classes in place of the required SPAN 220 and 350 courses.

No student will be permitted to register for or take a D/F repeat in SPAN 101, 102, or 201 when credit has already been received for a higher-numbered course. No student will be permitted to register for or take a D/F repeat in SPAN 220 when credit has already been received for SPAN 350 and/or 450.

**Course Credit for Oral Proficiency Levels**
Incoming students may receive course credit for their oral proficiency levels in Spanish through the American Council on Education (ACE) Credit Recommendation Service and Language Testing International (LTI), the assessment agency for the American Council on the Teaching of Foreign Languages (ACTFL). Students who have taken an ACTFL Oral Proficiency Interview (OPI) through LTI, received a proficiency rating by LTI, and received credit recommendation by ACE may receive the following course credits in Spanish at IUP:

<table>
<thead>
<tr>
<th>ACTFL Oral Proficiency Ratings (rated by LTI)</th>
<th>ACE Credit Recommendations</th>
<th>IUP Spanish Course Equivalencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intermediate-Mid</td>
<td>4 Lower Division credits</td>
<td>Either SPAN 102 or 201, depending on placement on departmental written exam</td>
</tr>
<tr>
<td>Intermediate-High/ Advanced Low</td>
<td>8 Lower Division credits</td>
<td>SPAN 201 and 220</td>
</tr>
<tr>
<td>Advanced-Mid</td>
<td>10 Lower Division credits</td>
<td>SPAN 201 and 220 and 350</td>
</tr>
</tbody>
</table>
To begin the process, students must contact LTI by e-mail (testing@languageetesting.com) to request an ACE College Credit Recommendation by OPI Examination information package and application. There is a fee for the OPI and an ACE application fee.

Spanish Honors Program
The honors program is open by departmental permission to Spanish and Spanish education K-12 majors with a minimum 3.25 cumulative GPA and a 3.25 GPA in Spanish courses.

To apply, students must submit two letters of reference from department faculty members and a two-page self-statement describing the student’s academic and career goals.

Students complete two semesters of SPAN 483/H/, CHSS 489 (a multidisciplinary colloquium emphasizing problem solving, discussion, reading, and writing on a topic or theme), and one course from SPAN 410-431. Students must earn at least a grade of “B” in each course completed for the track. To determine how Honors Track courses will be integrated into existing requirements for the Spanish or Spanish education K-12 major, students should consult their advisors.

Study Abroad
Study Abroad: The university has established study-abroad centers in Spain, Mexico, France, and Costa Rica. The program in Valladolid, Spain, is a second-semester-only program, whereas the ones in Mexico and Costa Rica are summer programs. All majors are required to participate in study abroad; nonmajors are also accepted into these programs. The 18 credits in Spain, 7 credits in Mexico, 6 credits in France, or 4 credits in Costa Rica are applicable, all or in part, to a major, minor, or certificate in Spanish and French (as applicable). Students interested in more information should contact the department.

Bachelor of Arts—Spanish

Liberal Studies: As outlined in Liberal Studies section
Mathematics: 3cr
Liberal Studies Electives: 6cr, no courses with SPAN prefix
College:
Foreign Language (included in major)  0
Major:  33-37
Study Abroad (1)

Required Courses:
SPAN 201  Intermediate Spanish or equivalent (2)  4cr
SPAN 220  Intermediate Spanish Conversation  3cr
SPAN 230  Intermediate Spanish Composition and Grammar  3cr
SPAN 260  Introduction to Hispanic Literature  3cr
SPAN 330  Advanced Spanish Composition and Grammar  3cr
SPAN 340  Hispanic Cultures into the 19th Century  3cr
SPAN 342/344  Spanish Cultures from the 19th Century to the Present/Spanish-American Cultures from the 19th Century to the Present  3cr
SPAN 350  Advanced Spanish Conversation  3cr
SPAN 362/364  Survey of Peninsular Literature/Survey of Spanish American Literature  3cr

Controlled Electives:
Any two courses from those numbered 400-431  6cr
Any 3cr in SPAN courses 342 or above except SPAN 390  3cr

Free Electives:  36-41
Total Degree Requirements:  120

(1) Students must successfully complete a program of language study in a Spanish-speaking country. This program must, as a minimum, last four weeks and carry 3 or more credits extending beyond the intermediate level. Students may fulfill this requirement by participating in any of the programs primarily administered by faculty of IUP’s Department of Foreign Languages. Students wishing to fulfill this requirement through any other study abroad program must obtain prior approval from the department. Requests for exemptions to this requirement must be initiated by the student in writing and submitted to the department chair.

(2) Students for whom SPAN 201 is waived (by means of placement tests) only need 33 credits in Spanish courses

Spanish Education K-12

The following additional requirements for Spanish Education K-12 in the Admission to Teacher Education and Certification Process are required. Please see the remainder of the requirements for all BSEd majors in the “3-Step Process for Teacher Education” in the College of Education and Communications section of this catalog. Students should refer to the Department of Foreign Languages/Spanish website and the Spanish Education K-12 Student Handbook for departmental guidelines and detailed explanations of program requirements, including the procedure for taking the OPI and WPT.

Mid-Program Review
During the semester in which students complete EDUC 242 with a “C” or better, they must meet the following departmental requirements:
1. Complete a departmental/advisory writing proficiency test in Spanish. Students will receive written feedback on their writing performance, including areas for improvement that may be necessary to reach the exit requirement of Advanced-Low in writing.
2. Demonstrate Intermediate-Mid or higher level of oral proficiency in Spanish in a departmental/advisory individual Oral Proficiency Interview (ACTFL).
3. Satisfactorily complete an interview in English with the Spanish education coordinator, a second faculty member from the Spanish section of the Department of Foreign Languages, and one cooperating teacher in order to assess their ability to interact with others on a professional level.
4. Have a minimum GPA in Spanish course work of 3.0.

Admission to Student Teaching
1. Demonstrate Advanced-Low or higher level of oral proficiency in Spanish in an individual Oral Proficiency Interview (ACTFL)—to be completed instead of the PRAXIS II Spanish: Content Knowledge Exam.
2. Demonstrate Advanced-Low or higher level of written proficiency in Spanish in an individual Writing Proficiency Test (ACTFL)—to be completed instead of the PRAXIS II Spanish: Content Knowledge Exam.
3. Have a minimum GPA in Spanish course work of 3.0.
4. Earn a grade of “C” or better in SPAN 330 and 453.

Bachelor of Science in Education—Spanish Education K-12 (*)

Liberal Studies: As outlined in Liberal Studies section
with the following specifications:
Mathematics: 3cr, MATH 101 or higher
Social Science: ANTH 110, PSYC 101
Liberal Studies Electives: 6cr, MATH course (1), no courses with SPAN prefix

College:
Preprofessional Education Sequence:
ACE 103  Digital Instructional Technology  3cr
EDSP 102  Educational Psychology  3cr
Professional Education Sequence:
EDEX 301  Education of Students with Disabilities in Inclusive Secondary Settings  2cr
EDEX 323  Instruction of English Language Learners with Special Needs  2cr
EDSP 477  Assessment of Student Learning: Design  3cr

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**Major:**

**Study Abroad (2)**

**Required Courses:**
- SPAN 201 Intermediate Spanish or equivalent (3) 4cr
- SPAN 220 Intermediate Spanish Conversation 3cr
- SPAN 230 Intermediate Spanish Composition and Grammar 3cr
- SPAN 260 Introduction to Hispanic Literature 3cr
- SPAN 330 Advanced Spanish Composition and Grammar 3cr
- SPAN 340 Hispanic Cultures into the 19th Century 3cr
- SPAN 342/344 Spanish Cultures from the 19th Century to the Present/Spanish-American Cultures from the 19th Century to the Present 3cr
- SPAN 350 Advanced Spanish Conversation 3cr
- SPAN 390 Teaching of Elementary Content through the Spanish Language 3cr
- SPAN 450 Conversation Forum 3cr
- SPAN 453 Spanish Phonetics and Phonemics 3cr

**Controlled Electives:**
- Any other 3cr from SPAN 300 or above 3cr
- SPAN 362, 364, or a 400-level literature course 3cr

**Free Electives:**

1-7cr

**Total Degree Requirements:**

120cr

(*) See requirements leading to teacher certification, titled “3-Step Process for Teacher Education,” in the College of Education and Communications section of this catalog.

(1) Students who do not wish to select a MATH course under the Liberal Studies electives must still take a second MATH course (101 or higher) to fulfill the state requirements.

(2) Students must successfully complete a program of language study in a Spanish-speaking country. This program must, as a minimum, last four weeks and carry 3 or more credits extending beyond the intermediate level. Students may fulfill this requirement by participating in any of the programs primarily administered by faculty of IUP’s Department of Foreign Languages. Students wishing to fulfill this requirement through any other study abroad program must obtain prior approval from the department. Requests for exemptions to this requirement must be initiated by the student in writing and submitted to the department chair.

(3) Students for whom SPAN 201 is waived (by means of placement tests) only need 36 credits in Spanish courses.

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**Department of Geography and Regional Planning**

Website: www.iup.edu/georegionalplan

John E. Benhart Jr., Chair

The Department of Geography and Regional Planning offers three separate degree programs for the geographer, planner, and teacher: bachelor of arts degree with a major in geography, bachelor of science degree with a major in regional planning, and bachelor of science in education degree with a major in social studies education—geography track.

Specific core requirements in Geography and Regional Planning offer a structured approach for majors. Appropriate tracks are available in both programs to prepare students for graduate work and to support different career options for majors. There are three tracks for the geography major (Environment/Energy, Geospatial Information Science and Technology, Human Geography), and two for the regional planning major (Environmental Planning, Community Planning and Development).

Department resources, which include the James Payne/Ruth Shirey Geographical Information Science Laboratory, the Robert Begg/Charles Weber Planning Design Laboratory/Studio, and the Dey Whit Watts Planning Studio offer access to spatial analysis and planning design equipment and applications. These well-equipped laboratories and studios house and leverage 50 workstations, large-format plotters, global positioning systems (GPS) units and a base station, small unmanned aerial systems (sUAS) aircraft, a weather station, and hydrologic and atmospheric monitoring devices. Geographic Information Systems (GIS), image processing, geovisualization, planning design, and computer-aided drafting (CAD) software includes the ArcGIS suite, the Adobe Creative Suite, AutoCAD, DroneDeploy UAS, ERDAS Imagine, Google SketchUp, MapInfo, and Trimble GPS Pathfinder Office and TerraSync.

A strong internship program directed by department faculty offers numerous public, private, and nonprofit placements in industry, engineering, conservation, land management, and planning agencies at the local, state, and federal levels. Because of employment demand for students from department programs, approximately 80 percent of internship placements are paid positions.

**Geography**

Geography has several traditions of study. Three of the most significant are the study of relationships between humans and environment (human-environment interaction), the study of places (their characteristics and structure), and the study of spatial organization (the way people use and organize space on earth, and the distribution of natural phenomena on the earth’s surface). All three traditions focus on understanding distributions of humans and natural phenomena at global, regional and local scales, by building knowledge regarding the phenomena under investigation (for examples, cities, watersheds, business/industry location, habitats, cultural patterns, transportation, land use, resource management, the built environment, and energy production and use) and applying relevant methods and technologies (including geographic information systems (GIS), small unmanned aerial systems (sUAS), remote sensing, global positioning systems (GPS) and geovisualization) to analyze them. The Geography program is organized into three tracks to allow students to build knowledge and skills to pursue their interests and gain employment: Environment/Energy, Geospatial Information Science & Technology, and Human Geography.

**Geography-Environment/Energy Track**

The Environment/Energy Track prepares students for careers in environmental fields, energy industries, or graduate study. Students who elect this track acquire knowledge of the physical and human processes that shape the environment, strategies/techniques for analyzing the environment, regulatory and compliance regimes for energy industries at the federal and state levels, mitigation strategies for environmental problems, and conceptual and technical aspects of geospatial techniques implemented in environmental and energy resource analyses and applications. The knowledge and skills acquired in this track prepare students to analyze, manage, and understand land resources, water resources, energy resources and habitats using industry-standard methods and technology. Students mastering the
environmental knowledge and spatial techniques in this track will be well prepared to obtain employment as environmental analysts/scientists, energy industry spatial analysts/environmental compliance specialists, environmental managers, or environmental engineering specialists.

**Geography Geospatial Information Science and Technology Track**

The Geospatial Information Science and Technology Track provides preparation for employment as geographic information systems (GIS) analysts and specialists, remote-sensing specialists, geospatial techniques specialists (including GPS and sUAS), cartographers, and geospatial intelligence analysts. Students are exposed to core geospatial information science concepts (GISc) that underlie emerging and fast-changing geospatial hardware, software, and infrastructure in our society such as geographic information systems (GIS), global-positioning systems (GPS), remote sensing, small unmanned aerial systems (sUAS or drones), and mobile spatial technologies, as well as opportunities to apply these concepts. The curriculum for this track is referenced to competencies identified in the U.S. Department of Labor Geospatial Competency Model, as well as the University Consortium for Geographic Information Science (UCGIS) Geographic Information Science and Technology Body of Knowledge. Students completing the Geospatial Information Science and Technology Track will be well prepared to be employed in the rapidly-growing geospatial fields as GIS, remote sensing, and geointelligence professionals.

**Geography Human Geography Track**

The Human Geography Track provides a broad framework of ideas and theories regarding the spatial organization of human phenomena (for example cities, business/industry location, cultural patterns, transportation, economic patterns, land use, the built environment) in addition to coursework in industry standard location analysis techniques. The common thread through the course offerings in this track is the focus on understanding human-created geographic patterns on the earth’s surface, and the methods which can be used to document and analyze these patterns. The knowledge base acquired in this track prepares students to understand and analyze urban development, business/industry location, cultural patterns, transportation accessibility, and economic development patterns. Students mastering the human geographic knowledge and analysis techniques in this track will be well prepared to obtain employment as location analysts, economic development professionals, demographic analysts, research analysts, or to gain admission to graduate programs.

**Geography Minor**

A minor in geography is appropriate for majors in all other fields of the natural and social sciences. Students in marketing and information systems will find a minor in this field relevant. A minor consists of 18 credits in courses taken only with the GEOG prefix; at least two courses must be at the 200 level and at least two courses must be at the 300 level or above. The department suggests students take major core courses if graduate study is anticipated.

**Geography Honors Program**

The honors program is open by departmental permission to majors with at least a 3.25 GPA in total university course work and a 3.25 GPA in geography courses. After completing 45 credits of university course work, all qualified majors will be invited to join the Geography Honors Track. Social Studies Education/Geography Track majors are encouraged to participate, with the realization that participation will require more than 120 credits.

Students select one of the following 12-credit options: (1) Two courses from GEOG 333, 334, 337, or 440 and two 600-level (graduate seminar) courses, (2) Two courses from GEOG 333, 334, 337, or 440 and one 600-level (graduate seminar) course and GEOG 483 Honors Thesis, (3) Three courses from GEOG 333, 334, 337, or 440 and GEOG 483 Honors Thesis, (4) Three courses from GEOG 333, 334, 337, or 440 and one 600-level (graduate seminar) course. Honors students who enroll in the above designated undergraduate courses will undertake an honors project identified in conjunction with the course instructor and reviewed by the Geography program director or the department chair (if the director is the course instructor).

Students must maintain a 3.0 GPA in the track. To determine how Honors Track courses will be integrated into existing requirements for the geography major, students should consult their academic advisor. To apply, students must submit a letter of intent to the Geography program director. The student’s advisor and one other Geography faculty member must endorse the student’s application.

**Bachelor of Arts—Geography/Environment/Energy Track**

**Liberal Studies:** As outlined in Liberal Studies section

**Mathematics:** MATH 217 (1)

**Natural Science:** GEOS 101-102 and GEOS 103-104 recommended

**Liberal Studies Electives:** 6cr, no courses with GEOG prefix

**College:**

Foreign Language Intermediate Level (2) 0-8

**Major:** 42

**Required Courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 213</td>
<td>Cartography and Map Design</td>
<td>3cr</td>
</tr>
<tr>
<td>GEOG 230</td>
<td>Cultural Geography</td>
<td>3cr</td>
</tr>
<tr>
<td>GEOG 231</td>
<td>Economic Geography</td>
<td>3cr</td>
</tr>
<tr>
<td>GEOG 316</td>
<td>Introduction to Geographic Information Systems</td>
<td>3cr</td>
</tr>
<tr>
<td>GEOG 341</td>
<td>Climatology</td>
<td>3cr</td>
</tr>
<tr>
<td>GEOG 342</td>
<td>Physiology</td>
<td>3cr</td>
</tr>
<tr>
<td>GEOG 411</td>
<td>History of Geography</td>
<td>3cr</td>
</tr>
<tr>
<td>GEOG 498</td>
<td>Research Seminar</td>
<td>3cr</td>
</tr>
<tr>
<td>RGPL 350</td>
<td>Introduction to Community Planning</td>
<td>3cr</td>
</tr>
</tbody>
</table>

**Controlled Electives:**

One course from GEOG 251-257 3cr

**Track Courses:** Four courses from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 222</td>
<td>Geography of National Parks</td>
<td>3cr</td>
</tr>
<tr>
<td>GEOG 343</td>
<td>Fresh Water Resources</td>
<td>3cr</td>
</tr>
<tr>
<td>GEOG 345</td>
<td>Biogeography for Environmental Managers</td>
<td>3cr</td>
</tr>
<tr>
<td>GEOG 415</td>
<td>Introduction to Remote Sensing</td>
<td>3cr</td>
</tr>
<tr>
<td>GEOG 425</td>
<td>GPS Concepts and Techniques</td>
<td>3cr</td>
</tr>
<tr>
<td>GEOG 435</td>
<td>Geography of Energy</td>
<td>3cr</td>
</tr>
<tr>
<td>GEOG 440</td>
<td>Conservation: Environmental Analysis</td>
<td>3cr</td>
</tr>
<tr>
<td>GEOG 444</td>
<td>Energy Development and Compliance</td>
<td>3cr</td>
</tr>
<tr>
<td>GEOG 455</td>
<td>Advanced Remote Sensing</td>
<td>3cr</td>
</tr>
<tr>
<td>RGPL 426</td>
<td>Environmental Land Use Planning</td>
<td>3cr</td>
</tr>
</tbody>
</table>

**Free Electives:**

23-32

Strongly Recommended: GEOG 493

Recommended: BIOL 210, 362, GEOG/RGPL 462, GEOS 201, 202

**Total Degree Requirements:** 120

(1) An alternative to MATH 217 is 6cr of MATH courses. Only one must be a Liberal Studies MATH course.

(2) Intermediate-level foreign language may be included in Liberal Studies electives.

**Bachelor of Arts—Geography/Geospatial Information Science and Technology Track**

**Liberal Studies:** As outlined in Liberal Studies section

**Mathematics:** MATH 217 (1)

**Liberal Studies Electives:** 6cr, no courses with GEOG prefix

**College:**

Foreign Language Intermediate Level (2) 0-8

**Major:** 42

**Required Courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 213</td>
<td>Cartography and Map Design</td>
<td>3cr</td>
</tr>
</tbody>
</table>
GEOG 230 Cultural Geography 3cr
GEOG 231 Economic Geography 3cr
GEOG 316 Introduction to Geographic Information Systems 3cr
GEOG 341 Climatology 3cr
GEOG 342 Physiography 3cr
GEOG 411 History of Geography 3cr
GEOG 498 Research Seminar 3cr
RGPL 350 Introduction to Community Planning 3cr

Controlled Electives:
One course from GEOG 251-257 3cr

Track Courses: Four courses from the following:
GEOG 415 Introduction to Remote Sensing 3cr
GEOG 421 Enterprise GIS Management 3cr
GEOG 424 Technical Issues in Geographic Information Systems 3cr
GEOG 425 GPS Concepts and Techniques 3cr
GEOG 455 Advanced Remote Sensing 3cr
GEOG 460 Foundations of Unmanned Aerial System Science and Applications 3cr
GEOG 475 Spatial Analysis Techniques 3cr

Free Electives:
Recommended: GEOG 493

Total Degree Requirements:
120

Bachelor of Arts—Geography/Human Geography Track

Liberal Studies: As outlined in Liberal Studies section 46-47
with the following specifications:
Mathematics: MATH 217 (1)
Social Science: GEOG 102
Liberal Studies Electives: 6cr, no courses with GEOG prefix

College:
Foreign Language Intermediate Level (2) 0-8

Major:
Required Courses:
GEOG 213 Cartography and Map Design 3cr
GEOG 230 Cultural Geography 3cr
GEOG 231 Economic Geography 3cr
GEOG 316 Introduction to Geographic Information Systems 3cr
GEOG 341 Climatology 3cr
GEOG 342 Physiography 3cr
GEOG 411 History of Geography 3cr
GEOG 498 Research Seminar 3cr
RGPL 350 Introduction to Community Planning 3cr

Controlled Electives:
One course from GEOG 251-257 3cr

Track Courses: Four courses from the following:
GEOG 232 Urban Landscapes 3cr
GEOG 261 Geography of Wine 3cr
GEOG 331 Population Geography 3cr
GEOG 333 Trade and Transportation 3cr
GEOG 334 Political Geography 3cr
GEOG 336 Social Geography 3cr
GEOG 337 Historical Geography 3cr
GEOG 404 Transportation Planning 3cr

Free Electives:
GEOG 493 Internship (strongly recommended) 3cr

Total Degree Requirements:
120

(1) An alternative to MATH 217 is 6cr of MATH courses. Only one must be a Liberal Studies MATH course.
(2) Intermediate-level foreign language may be included in Liberal Studies electives.

Minor—Geography

Controlled Electives: (1)
At least two courses at the 200 level
At least two courses at the 300 level or above
(1) Only courses taken as GEOG may be counted toward the minor.

Geography Honors Track

Prerequisites: Declared major in geography, completion of at least 45cr of university course work, 3.25 or higher GPA in major and overall, plus endorsement of advisor and one other Geography faculty member

Select one of the following options:
Two courses from GEOG 333, 334, 337, and 440 (1) and two 600-level seminars
Two courses from GEOG 333, 334, 337, and 440 (1) and one 600-level seminar and GEOG 483/H/2 GEOG 333, 334, 337, and 440 (1) and GEOG 483/H/2
Three from GEOG 333, 334, 337, and 440 (1) and one 600-level seminar

(1) Students in these designated undergraduate courses will undertake an honors project identified in conjunction with the course instructor and reviewed by the Geography program director or the department chair (if the director is the course instructor).
(2) Credits for GEOG 483 are counted in the appropriate departmental concentration requirement.

Certificate- Geospatial Intelligence

This certificate prepares students to undertake the use and analysis of imagery, imagery intelligence, and geospatial information to describe, assess, and visually depict physical features and geographically-referenced activities on the Earth’s surface for intelligence purposes. Students will learn the context, geographic information science, and geointelligence trade craft techniques to be well prepared to enter the workforce as an entry-level geospatial intelligence analyst for federal intelligence agencies or private intelligence contractors.

Certificate-Geospatial Intelligence

Required Courses:
GEOG/RGPL 213 Cartography and Map Design 3cr
GEOG/RGPL 316 Introduction to Geographic Information Systems 3cr
GEOG/RGPL 415 Introduction to Remote Sensing 3cr
GEOG/RGPL 424 Technical Issues in Geographical Information Systems 3cr
GEOG/RGPL 455 Advanced Remote Sensing 3cr
GEOG 488 Geospatial Intelligence Capstone 3cr
MLSC 201 National Security and Fundamentals of Military Topography or
or PLSC 465 Intelligence Process and Policy 3cr

Military Geographic Competencies Certificate

The goal of this certificate program is to provide students who are pursuing military science degree programs with geographic knowledge and geospatial expertise relevant to service in the armed forces. Among the proficiencies that students will develop are knowledge of global human and physical geography, global regional geographic characteristics, and cartographic and geospatial techniques.

Military Geographic Competencies Certificate
Certificate - Military Geographic Competencies

Core Courses:
- GEOG 104 World Geography: Global Context (3 cr)
- GEOG 105 Our Digital Earth: Mobile Devices, Web Applications, and Geospatial Technology (3 cr)
- GEOG 213 Cartography and Map Design (3 cr)

Controlled Electives:
- One additional course from the following: (3 cr)

Unmanned Aerial Systems (UAS) Science and Applications

This certificate provides students with foundational knowledge and technical skills in the emerging sector of small Unmanned Aerial Systems (UAS). Students will learn the regulatory environment for UASs in the United States, as well as the basics of UAS design and operation, aeronautics and flight theory, requirements for FAA Part 107 Remote Pilot certification, remote sensing and photogrammetric concepts, mission planning, UAS mission flight techniques, and processing techniques for data deliverables. The certificate is designed to provide students with knowledge, skills, experience and credentials to participate in the expanding UAS sector as a certified FAA Part 107 Remote Pilot, operator, or ancillary ground crew member/observer.

Certificate in Unmanned Aerial Systems (UAS) Science and Applications

Core Courses:
- GEOG 415 Introduction to Remote Sensing (3 cr)
- GEOG 460 Foundations of Unmanned Aerial Systems (UAS) Science and Applications (3 cr)
- GEOG 463 Unmanned Aerial Systems for Remote Sensing and Spatial Data Acquisition (3 cr)

Regional Planning

The mission of the Regional Planning program is to provide opportunities for students, planning professionals, citizens of a diverse regional community to master fundamental and innovative planning principles. The program trains students to become professional planners through a process that emphasizes conceptual knowledge, experiential learning, innovative planning skills, and civic engagement. Students work with colleagues and planners to guide change in a way that will make communities better places to live for present and future generations.

Employment opportunities for planners are excellent. This program has prepared students to work in planning agencies at the federal, state, regional, county, and local levels as well as in the private sector with planning consulting and engineering firms. As planners, they have been trained to work with the public to guide growth and change in metropolitan regions across the country. The two tracks—Environmental Planning and Community Planning and Development—are designed to focus on the knowledge, techniques and strengths of the faculty members, as well as provide students maximum opportunity to be competitive in the planning job market. As part of their course of study, students address and solve real-world problems through class projects and intern with practicing planners who deal with these issues in a professional environment. Planners work with communities to improve the quality of life for people who live there. They take a comprehensive view of issues, listen to all citizen perspectives, endeavor to reconcile controversy, and propose alternatives that can guide community decision making in allocating finite resources to create better places to live.

Regional Planning Community Planning and Development Track

The Community Planning and Development Track prepares students for employment as professional planners adept at identifying and assessing community development challenges, and applying advanced techniques to the development of livable communities. Data collection, spatial information management, and graphic presentation are integral skills taught in the program. Course work also equips students with a conceptual grounding on community development and housing markets theories, spatial data analysis in planning, and site location analysis. Course work includes methods for identifying, modeling, and analyzing the spatial organization of community systems from both practical and theoretical perspectives. Students in regional planning graduate with a working knowledge of land use regulations, and housing need assessment analysis techniques. They are familiar with strategies of economic development and housing markets. They understand both the theory and ethics of planning. Students completing this track should be able to assist diverse communities and organizations in identifying and finding solutions to a wide variety of community development challenges and how transportation planning impacts land use issues.

Regional Planning Environmental Planning Track

The Environmental Planning Track is designed to prepare majors in regional planning for careers as environmental planners or further graduate studies. Students who select this track learn about aspects of the natural environment, methods to preserve and conserve resources, and how to plan communities where humans both benefit from the natural environment and have minimal impact on it. They are knowledgeable about environmental regulation and policy. They understand community strategies for ameliorating environmental problems and have both a theoretical and working knowledge of subdivision, land use, and zoning regulation. They are familiar with the regulation and management of flood plains and wetlands, the management of waste and storm water, and environmental impact assessment. They understand both the theory and ethics of planning. Students completing this concentration should be able to assist diverse communities and organizations in identifying and finding solutions to a wide variety of environmental issues such as wastewater treatment, water pollution, acid rain, watershed planning, carbon footprints, deforestation, and natural resource extraction.

Regional Planning Minor

A minor in regional planning is appropriate for majors in all other fields of the natural and social sciences. Students in marketing and information systems will find a minor in this field relevant. A minor consists of 18 credits in courses taken with the RGPL prefix. The department suggests students take the core in this program if graduate study is anticipated.

Regional Planning Honors Programs

The honors program is open by departmental permission to regional planning majors with at least a 3.25 GPA in total university course work and a 3.25 GPA in regional planning courses. After completing 45 credits of university course work, all qualified majors will be invited to join the Regional Planning Honors Track.

Students select one of the following options: (1) Two courses from RGPL 333, 345, 426, and 440 and two 600-level (graduate seminar) courses, (2) Two courses from RGPL 333, 345, 426, and 440 and one 600-level (graduate seminar) course and RGPL 483 Honors Thesis, (3) Three courses from RGPL 333, 345, 426, and 440 and RGPL 483 Honors Thesis, (4) Three courses from RGPL 333, 345, 426, and 440 and one 600-level (graduate seminar) course. Honors students who enroll in the above designated undergraduate courses will undertake an honors project identified in conjunction...
with the course instructor and reviewed by the Regional Planning program director or the department chair (if the director is the course instructor).

Bachelor of Science—Regional Planning/Environmental Planning Track

Liberal Studies: As outlined in Liberal Studies section with the following specifications:
Mathematics: MATH 217 recommended
Social Science: RGPL 103 required
Liberal Studies Electives: 6cr, no courses with RGPL prefix

College:
Foreign Language Intermediate Level (1) 0-8
Major:

Required Courses in Planning:
RGPL 213 Cartography and Map Design 3cr
RGPL 316 Introduction to Geographic Information Systems 3cr
RGPL 350 Introduction to Community Planning 3cr
RGPL 352 Planning Methods 3cr
RGPL 358 Planning History and Theory 3cr
RGPL 498 Community Planning Practicum 3cr
RGPL 453 Planning Design Studio I 3cr
RGPL 454 Planning Design Studio II 3cr
RGPL 458 Planning Law 3cr
RGPL 462 Planning Policy, Implementation, and Administration 3cr
RGPL 493 Internship 3cr

Track Courses: Two Required Courses:
RGPL 404 Transportation Planning 3cr
RGPL 470 Housing and Community Development 3cr

Select three courses from the following:
GEOG 334 Political Geography 3cr
PLSC 354 Metropolitan Problems 3cr
RGPL 415 Introduction to Remote Sensing 3cr
RGPL 424 Technical Issues in Geographic Information Systems 3cr
RGPL 426 Environmental Land Use Planning 3cr

Free Electives: 14-23

Total Degree Requirements: (2) 120
(1) Intermediate-level foreign language may be included in Liberal Studies electives.
(2) As they pass through the program, students will be expected to develop and maintain a portfolio of planning course work as a requirement for graduation.

Minor—Regional Planning 18

Controlled Electives: Six RGPL courses (1) 18cr
(1) Only courses taken as RGPL may be counted toward the minor.

Regional Planning Honors Track 12

Prerequisites: Declared major in regional planning, completion of at least 45cr of university course work, 3.25 or higher GPA in major and overall, plus endorsement of advisor and one other Regional Planning faculty member

Select one of the following options:
Two from RGPL 333, 345, 426, and 440 (1) and two 600-level seminars
Two from RGPL 333, 345, 426, and 440 (1) and one 600-level seminar and RGPL 483/H (2)
Three from RGPL 333, 345, 426, and 440 (1) and RGPL 483/H (2)
Three from RGPL 333, 345, 426, and 440 (1) and one 600-level seminar

(1) Students in these designated undergraduate courses will undertake an honors project identified in conjunction with the course instructor and reviewed by the Regional Planning program director or the department chair (if the director is the course instructor).
(2) Credits for RGPL 483 are counted in the appropriate departmental track requirement.

Social Studies Education/Geography Track

The Social Studies Education/Geography Track offers a geography major equivalent for the student interested in teaching at the junior- or senior-high levels. The Pennsylvania certification will be in citizenship. New education requirements instituted for the commonwealth specify that geography be taught at all levels in Pennsylvania. Nationally, geography is one of the core subject areas named in the National Education Goals program.

Bachelor of Science in Education—Social Studies Education/Geography Track (*)

Liberal Studies: As outlined in Liberal Studies section with the following specifications:
Humanities-History: Fulfilled by required courses in major
Mathematics: 6cr
Natural Science: Option II
Social Science: ECON 121, GEOG 102, PSYC 101
Liberal Studies Elective: 3cr, ECON 122, no courses with GEOG prefix

College: 32

Preprofessional Education Sequence:
ACE 103 Digital Instructional Technology 3cr
EDSP 102 Educational Psychology 3cr

Professional Education Sequence:
CHSS 342 Social Studies Teaching Lab 1cr
EDUC 301 Education of Students with Disabilities in Inclusive Secondary Settings 2cr
EDEX 323 Instruction of English Language Learners with Special Needs 2cr
EDSP 477 Assessment of Student Learning: Design and Interpretation of Educational Measures 3cr
EDUC 242 Pre-student Teaching Clinical Experience I 1cr
EDUC 441 Student Teaching 12cr
EDUC 442 School Law 1cr
EDUC 455 Teaching of Social Studies in Secondary Schools 3cr

Major: 21
Required Courses:
GEOG 341, 342, 343, 345, 440
Regional Geography: GEOG 251, 252, 253, 254, 255, 256, 257 (1)

Social Science Distribution Requirements: 24
ANTH 110 Contemporary Anthropology 3cr
HIST 201 Western Civilization before 1600 (1) 3cr
HIST 202 Western Civilization since 1600 (1) 3cr
HIST 204 United States History to 1877 3cr
HIST 205 United States History since 1877 3cr
PLSC 111 American Government 3cr
PLSC 280 or 285 Comparative Government I: Western Political Systems or Comparative Government II: Non-Western Political Systems 3cr
SOC 231 Contemporary Social Problems 3cr

Total Degree Requirements: (2) 120

(*) See requirements leading to teacher certification, titled “3-Step Process for Teacher Education,” in the College of Education and Communications section of this catalog. To student teach, students must have a 3.0 cumulative GPA in their major (social science and geography courses). To be licensed to teach geography, education majors must apply for social studies education certification.

(1) GEOG 104 may count as a regional course if a student took the course before entering the track.
(2) 300-level HIST course strongly recommended to complete a minor in history. Credits would then total 123.

Department of History
Website: www.iup.edu/history
R. Scott Moore, Chair

History is a critical study of the past that examines how societies have been shaped by cultural, political, social, and economic influences across time and space. Degree programs offered by the History Department are the bachelor of arts in history, and the bachelor of science in education in social studies education, concentrating in history. The Social Studies Education program prepares students to teach at the junior- and senior-high school levels. The bachelor of arts program includes a number of specializations that prepare students for careers in law, government service, public history, and broad business opportunities.

History is the study of change in human societies over time, and thus it is of broad applicability. The many careers in teaching and in Public History (including work in museums, archives and the park service) attest to the continued importance of history to communities everywhere. Governments, non-government organizations and businesses all value the understanding of social change and the research skills the study of history is based on. All of us are living through the process of historical change and studying the discipline of history is the best way to understand these changes.

All students complete a set of skills and foundation courses where they develop the skills of research, analysis, and presentation that are essential to history and are introduced to the broad outlines of the history of the peoples of the United States and the world. During sophomore year BA students, in consultation with their advisor, choose a specialization based on their future career plans.

Public History Specialization
The Public History Specialization is designed for students interested in interpreting and creating history. Students can take courses in archival studies, digital history, museum studies, and oral history. Through these types of courses, public history students develop practical skills that will help them secure employment in libraries, museums, archives, national parks, heritage sites, media, and corporations. Furthermore, this specialization prepares students for graduate study in more specialized fields such as historic preservation, information sciences, library and archival science, material culture conservation, and museum curation.

Public Service Specialization
The Public Service Specialization prepares students for careers focused on helping others, from their local neighborhood to global communities. This broad field covers a range of occupations (Government, Nonprofits, and NGOs) all united by providing individuals an opportunity to make an impact. This specialization combines History’s emphasis on critical thinking and communication skills (both oral and written) with skills from courses selected by the student and their advisor as an area of focused interest.

Private Sector Specialization
The Private Sector Specialization is designed to prepare students for job opportunities in today’s global economy. History’s focus on learning to recognize cause and effect, to distinguish change over time, to understand the value of context, and to appreciate the complexity of the human experience are essential skills in the marketplace. These skills transition well to a host of occupations in a variety of fields.

Pre-Law Specialization
The Pre-Law Specialization is aimed for students planning to pursue a legal career. History’s emphasis on research, analyzing evidence, and using this evidence to produce a convincing argument is valuable preparation for a legal career.

Individualized Specialization
The Individualized Specialization is designed by the student in consultation with their advisor. It is particularly suited to those students pursuing a double major or planning to attend graduate school. All students in the Individualized Specialization are required to complete the departmental honors program, a double major, minor, or certificate.

Requirements for the bachelor of arts degree program in history are 41 credits in history. Requirements for the bachelor of science in education degree program in social studies, concentrating on history, are a minimum of 30 credits in history within the 57 credits required for social studies certification.

To minor in history, 18 credits of courses with an HIST prefix are required, with at least 6 credits taken at the 300 or higher level and no more than 3 credits taken at the 100 level. No more than 9 transfer credits may be counted toward the minor.

All programs should be planned with an advisor. Every major and concentration in history will be advised by department faculty members.

Admission to departmental honors, initiation in the local chapters of Phi Alpha Theta and Pi Gamma Mu, participation in study tours and study abroad programs, internships, and other activities should be investigated by every history student. The department is committed to the ideal of a broad liberal arts education.
Bachelor of Arts—History

Liberal Studies: As outlined in Liberal Studies section with the following specifications:

Humanities-History: Fulfilled by required courses in major
Mathematics: 3cr

Liberal Studies Electives: 9cr, no courses with HIST prefix

College:
Foreign Language Intermediate Level (1)

Major:
41

Skills Courses:
HIST 295 Introduction to Historical Studies 2cr
HIST 395 Introduction to Historical Methods 3cr
Three 1cr skills courses (numbered HIST 215-225) 3cr

Foundation Courses:
Choose from: HIST 201,202,204,205,206,207
9cr

Controlled Electives:
Three courses must fit into one theme; an additional course into a second theme. Note that many courses fit into two themes.
At least ONE must be a Non-western HIST course:
Latin America, Africa, Asia, Middle East or Russia, 300-400 level
Theme: Society, Culture, the Environment
Theme: Transnational, Global and Comparative
Theme: Government, Nations, and Empires
Non-Western HIST Specializations
During sophomore year each student, in consultation with their advisor, will select a specialization.

Public History Specialization
12cr
Required: HIST 420,499. HIST 493 Internship or appropriate substitution 9cr
Controlled Electives: 3cr from HIST 421,422,423

Public Service Specialization
12cr
Required: HIST 495/496/497/498; HIST 493 Internship or appropriate substitution 6cr
Controlled Electives: 6cr from COMM 315,335,354; ECON 223,335,361; ELR 314, 480; ENGL 310,321; GEOG 231; GEOS 119, 151,156; JRNL 126,301; NURS 314; PLSC 351,354,358; SOC 231,337,345; WGS 200; other appropriate substitutions with approval of advisor

Private Sector Specialization
12cr
Required: HIST 495/496/497/498: HIST 493 Internship or appropriate substitution 6cr
Controlled Electives: 6cr from BLAW 225; COMM 315,335; ECON 330,331,345; ENGL 310,321; JRNL 109,117,201; HOSP 212,235; LMTH 105,126,301; MGMT 105,275; SOC 421; WGS 200; other appropriate substitutions, with approval of advisor

Pre-Law Specialization
12cr
Required: HIST 495/496/497/498
Controlled Electives: 9cr from HIST 320/341/342/346/475

Other requirements: Take the Pre-law interdisciplinary minor

Individualized Specialization
12cr
Required: HIST 495/496/497/498
Controlled Electives: 9cr from Upper division HIST courses

Bachelor of Science in Education—Social Studies Education/History Track (*)

Liberal Studies: As outlined in Liberal Studies section with the following specifications:

Humanities-History: Fulfilled by required courses in major
Mathematics: 3cr

Natural Science: Option II

Social Science: ANTH 110, ECON 121, PSYC 101

Liberal Studies Electives: 6cr, ECON 122, GEOG 230, no courses with HIST prefix

College:
additional credits of MATH 101 level or above 3cr
36

Total Degree Requirements:
120

(strings)

Bachelor of Science in Education—Social Studies Education/History Track (*)

Liberal Studies: As outlined in Liberal Studies section with the following specifications:

Humanities-History: Fulfilled by required courses in major
Mathematics: 3cr

Natural Science: Option II

Social Science: ANTH 110, ECON 121, PSYC 101

Liberal Studies Electives: 6cr, ECON 122, GEOG 230, no courses with HIST prefix

College:
additional credits of MATH 101 level or above 3cr
36

Total Degree Requirements:
120

(strings)

(*) See requirements leading to teacher certification, titled “3-Step Process for Teacher Education,” in the College of Education and Communica-
must be made, normally early in the junior year. The program is particularly
of intent during the sophomore year; a formal application for admission
Students interested in the History Honors Track should discuss this opportu-
Honors history courses count toward the major.
dpartmental commencement ceremonies.
couraged for students intending to seek admission to graduate or profes-
students completing the departmental honors program are recognized at
tiificate complements majors in related fields such as anthropology, commu-
know if students can communicate professionally, they can succeed. Stu-
re, and planning, just to name a few, where strategic com-
atements section of this catalog. To student teach, students must have a 3.0
cumulative GPA in their major (social science and history courses). To
be licensed to teach, education/history majors must apply for social

(1) Students are required to take an additional 3cr of MATH beyond the
Liberal Studies requirement for a total of 6cr, all of which must be 101
level or above.
(2) In exceptional cases, the student’s advisor may give special permission
to substitute two upper-level courses for one of the foundation courses.
(3) This requirement may be fulfilled by completing the departmental
honors program or graduate seminar with a concluding paper.

History Honors Track

The honors track is open by departmental permission to history, history/
pre-law, and social studies education/history majors with a minimum 3.25
cumulative GPA and a 3.5 GPA in history courses. All students write an
honors thesis, which is completed over two semesters under the direction of
a department professor who specializes in the student’s area of interest. The
thesis is approved by a thesis committee comprising the director and two
other readers, one of whom may come from outside the History Depart-

Honors students also take an honors (H) designated 300+ history class. All
Honors history courses count toward the major.

Students interested in the History Honors Track should discuss this opportu-
nity as early as possible with their advisors. Students may file a declaration
of intent during the sophomore year; a formal application for admission
must be made, normally early in the junior year. The program is particularly
encouraged for students intending to seek admission to graduate or profes-
sional schools. Honors coursework is designated on university transcripts;
students completing the departmental honors program are recognized at
departmental commencement ceremonies.

History Honors Track

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 483</td>
<td>6 cr</td>
</tr>
<tr>
<td>HIST (H)</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

(1) Two semesters, 3cr each.

Digital History Certificate

Introduces skills that will prepare students to research, discover, preserve,
and present history through digital and news media. Completion of the
18-credit certificate will enable students to pursue careers in education,
virtual archive management, public history, and multimedia productions.

Certificate—Digital History

<table>
<thead>
<tr>
<th>Core Courses:</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>One History course numbered 250 or below</td>
<td>3 cr</td>
</tr>
<tr>
<td>One History course numbered 300 or above</td>
<td>3 cr</td>
</tr>
<tr>
<td>HIST 379</td>
<td>3 cr</td>
</tr>
<tr>
<td>COMM 240</td>
<td>3 cr</td>
</tr>
<tr>
<td>COMM 249</td>
<td>3 cr</td>
</tr>
<tr>
<td>COMM 271</td>
<td>3 cr</td>
</tr>
<tr>
<td>COMM 306</td>
<td>3 cr</td>
</tr>
<tr>
<td>COMM 330</td>
<td>3 cr</td>
</tr>
<tr>
<td>COMM 374</td>
<td>3 cr</td>
</tr>
<tr>
<td>COMM 440</td>
<td>3 cr</td>
</tr>
<tr>
<td>COMM 449</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

Public History

Prepares students for careers in the collection, preservation, and presenta-
tion of information about the past to the general public. This 18-credit cer-
tificate complements majors in related fields such as anthropology, communica-
tions media, and education. Completion of the certificate will prepare
students to pursue positions in libraries, museums, archives, national parks,
heritage sites, media, and corporations.

Certificate—Public History

<table>
<thead>
<tr>
<th>Core Courses:</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 204</td>
<td>United States History to 1877 or 205 United States History Since 1877</td>
</tr>
<tr>
<td>HIST 420</td>
<td>Introduction to Public History</td>
</tr>
</tbody>
</table>

Controlled Electives:

| Two Public History courses from HIST 421, 422, or 423 | 6 cr |

Electives:

| Two 300-level or higher History | 6 cr |

(1) No Public History courses (HIST 420, 421, 422, or 423) may be
counted toward the BSed—Social Studies Education/History Track.
Only one may be counted toward the BA—History or the
BA—History/Pre-law Track.

Department of Journalism and Public Relations

Website: www.iup.edu/journalism
Michele Papakie, Chair

A bachelor of arts degree with a major in journalism and public relations
at IUP prepares students to thrive in a wide variety of career fields, such as
news media, public relations, entertainment, magazines, advertising, visual
journalism, online journalism, web design, marketing, and social media.

In addition to these traditional, journalistic career fields, department gradu-
ates combine their outstanding communication skills with other fields
about which they are passionate and land jobs in hospitals, hotels, politics,
avocacy, sports, and planning, just to name a few, where strategic com-
munication is essential.

This major’s curriculum is flexible enough to allow students to pick up
a second major, or a minor, and still graduate within four years. This is
how journalism and public relations majors differentiate themselves in the
workforce.

With seven required courses (21 credits), students are empowered to individu-
alize their degrees specifically in line with their interests and passions.
Students choose six more major electives (18 additional credits), out of the
24 (72 credits) the department offers, to complete the major requirements.

All journalism and public relations students are required to pass a basic-
writing-skills test before completing the degree. Students may make as
many scheduled attempts as needed to pass the test with a grade of 70
percent or better.

Students in the College of Humanities and Social Sciences are also required
to reach the intermediate level of a foreign language, which typically
translates to three semesters (12 credits) of the student’s choice of a foreign
language. These requirements make journalism and public relations gradu-
ates more marketable.

For students who choose to major in another program at IUP, the depart-
ment offers an 18-credit minor that complements any major.

Successful alumni of this program represent a network of professionals
throughout communications industries. This network assists students who
seek internships, which are plentiful and strongly encouraged. These practi-
cal experiences often lead to job opportunities after graduation. Employers
know if students can communicate professionally, they can succeed. Stu-
dents who choose to study journalism and public relations at IUP graduate
as accomplished communicators.

Course Sequence

First Semester: JRNL 102 and 105
Second Semester: JRNL 220 plus one journalism and public
Bachelor of Arts—Journalism and Public Relations

Liberal Studies: As outlined in Liberal Studies section with the following specifications:
- Mathematics: 3cr
- Social Science: 9 cr, no courses with JRNL prefix to program requirements
- Liberal Studies Electives: 6-8cr, no courses with JRNL or COMM prefix

Required Courses:
- JRNL 102 Basic Journalistic Skills (2, 5) 3cr
- JRNL 105 Journalism and the Mass Media (2) 3cr
- JRNL 215 Media Convergence in Journalism 3cr
- JRNL 220 Writing for Media (2) 3cr
- JRNL 328 News Reporting (2, 4) 3cr
- JRNL 347 Journalism Law and Ethics 3cr
- JRNL 400 Professional Preparation and Portfolio 3cr

Controlled Electives:
- Other JRNL courses (as listed in this catalog) (3, 5) 18cr

Other Requirements:
- Department recommends a planned program of dual major, minor(s), or electives (4)
- Free Electives: 25-35

Total Degree Requirements: 120

A significant number of students interested in exploring interdisciplinary connections choose Philosophy as a second major, both for its flexibility and the new perspective it provides on the primary major. Course work in metaphysics (PHIL 420), the philosophy of science (PHIL 330), and the theory of knowledge (PHIL 421) deepens students’ understanding of the methods and assumptions of natural science and social science. Course work in the history of ideas deepens students’ appreciation of the Western intellectual tradition and their understanding of academic pursuits, generally (PHIL 324, 325, 326, and 410). Course work in ethics (PHIL 122) and political philosophy (PHIL 323) provides orientation for work in social science, business, law, criminology, or safety science. Philosophers also take a distinctive perspective on aesthetic questions of interest to fine arts majors (PHIL 223) and questions about the nature of the mind of interest to psychology majors (PHIL 360).
Honors in Philosophy
The department offers students an opportunity to graduate with honors in philosophy. The option is encouraged for students intending to pursue graduate or advanced professional degrees. Philosophy majors and philosophy/pre-law majors may be invited to apply or may nominate themselves. In either case, to be considered for Honors in Philosophy, students must have earned at least 60 credits in total, with a minimum 3.25 cumulative GPA and a minimum 3.5 GPA in philosophy courses. Honors in Philosophy requires completion of a two-semester, 6-credit, Honors Thesis Independent Study. The honors thesis is completed individually under the direction of a department professor who specializes in the student’s area of interest and is approved by a thesis committee comprising the director and two other readers. To determine how honors will be integrated into existing requirements for the philosophy or philosophy/pre-law major, students should consult their assigned advisors. Students completing the departmental honors program are recognized at departmental commencement ceremonies.

Bachelor of Arts—Philosophy

Liberal Studies: As outlined in Liberal Studies section 46-47
with the following specifications:
Mathematics: 3cr
Liberal Studies Electives: 6cr, no courses with PHIL prefix

College:
Foreign Language Intermediate Level (1) 0-8

Major:
30

Required Courses:
PHIL 221 Symbolic Logic I 3cr
PHIL 324 Ancient Greek Philosophy 3cr
PHIL 325 Early Modern European Philosophy 3cr

Controlled Electives:
Three PHIL courses (9cr) (with restrictions) (2, 3) 9cr
At least two courses from the following two categories
Knowledge and Reality: 6cr
Six credits from the following:
PHIL 330, 350, 360, 390, 420, 421, 460
Ethics and Values: 6cr
Six credits from the following:
PHIL 223, 232, 240, 270, 320, 323, 326, 450

Free Electives: 35-44

Total Degree Requirements: 120

(1) Intermediate-level foreign language may be included in Liberal Studies electives.
(2) In addition to PHIL 221, no more than four 100- and 200-level courses may be counted toward the major. Only PHIL courses may be counted toward the major.
(3) No more than 9 non-classwork credits may be counted toward the major. Non-classwork credits include independent study, independent honors project, and internship in philosophy.

Bachelor of Arts—Philosophy/Pre-law Track

Liberal Studies: As outlined in Liberal Studies section 46-47
with the following specifications:
Mathematics: 3cr
Liberal Studies Electives: 6cr, no courses with PHIL prefix

College:
Foreign Language Intermediate Level (1) 0-8

Major:
30

Required Courses:
PHIL 221 Symbolic Logic I 3cr
PHIL 324 Ancient Greek Philosophy 3cr
PHIL 325 Early Modern European Philosophy 3cr

Controlled Electives:
Three PHIL courses (9cr) (with restrictions) (2, 3) 9cr

At least two courses from the following two categories
Knowledge and Reality: 6cr
Six credits from the following:
PHIL 330, 350, 360, 390, 420, 421, 460
Ethics and Values: 6cr
Six credits from the following:
PHIL 223, 232, 240, 270, 320, 323, 326, 450

Free Electives: 14-29

Total Degree Requirements: 120

(1) Intermediate-level foreign language may be included in Liberal Studies electives.
(2) In addition to PHIL 221, no more than four 100- and 200-level courses may be counted toward the major. Only PHIL courses may be counted toward the major.
(3) No more than 9 non-classwork credits may be counted toward the major. Non-classwork credits include independent study, independent honors project, and internship in philosophy.

Minor—Philosophy 18

Controlled Electives:
Six PHIL courses (with restrictions) (1, 2) 18cr

(1) No more than three 100- and 200-level courses may be counted toward the minor. Only PHIL courses may be counted toward the minor. Unless otherwise indicated in the Course Descriptions, all 300- and 400-level courses require either philosophy major or minor status, junior or senior standing, or permission of the instructor.
(2) No more than 3 non-classwork credits may be counted toward the minor. Non-classwork credits include independent study, independent honors project, and internship in philosophy.

Honors in Philosophy 6

Required Course:
PHIL 483/H/ Honors Thesis in Philosophy 6cr

Department of Political Science

Website: www.iup.edu/politicalscience
David D. Chambers, Chair

Political scientists focus on political systems, including the effect of environment on the system, inputs, the decision-making agencies that render binding public policies, and system outputs. Approaches to the study of government and politics include the normative approach, in which philosophical attention centers on values by asking the question “What ought to be?” and the behavioral approach, in which an attempt is made to develop verifiable theories through scientific methods by asking the questions “How?” and “Why?”

Students majoring in political science have employment opportunities in federal, state, and local governments and with private civic groups, interest groups, and political groups. Students who go on to graduate work find appointments at higher levels and in college teaching. Students graduating in political science, as in any of the social sciences, are in demand by employers in business and industry. Students completing the political science internship program have experienced considerable success in finding employment upon graduation. The political science major is also especially suitable for the pre-law student.
Degree programs offered by the Political Science Department are the bachelor of arts degree programs in political science or political science/pre-law. An interdisciplinary major and an International Studies minor are sponsored by the Political Science Department. The department also offers a Political Science minor and a Homeland Security minor.

**Bachelor of Arts—Political Science**

**Liberal Studies:** As outlined in Liberal Studies section with the following specifications:

- **Mathematics:** 3cr
- **Social Science:** PLSC 111
- **Liberal Studies Electives:** 6cr, no courses with PLSC prefix

**College:**

- **Foreign Language Intermediate Level (1)**

  **Major:** 33 cr

  **Required Courses:**
  - PLSC 101 World Politics (2) 3cr
  - PLSC 111 American Government 3cr
  - PLSC 260 Contemporary Political Ideas 3cr
  - PLSC 300 Research Methods in Political Science 3cr

  **Controlled Electives:** 24cr
  - At least one course in three of the four areas:
    - **American Studies:** PLSC 251, 346, 350, 351, 353, 354, 355, 356, 358, 359
    - **Political Theory:** PLSC 360, 361, 362
    - **Public Policy and Administration:** PLSC 250, 370, 371
    - **International Studies:** PLSC 280, 282, 283, 285, 382, 383, 384, 385, 387, 388, 389, 422, 465 (4)

  **Free Electives:** 34-41 cr

  **Total Degree Requirements:** 120 cr

(1) Intermediate-level foreign language may be included in Liberal Studies electives.

(2) PLSC 101 satisfies the global and multicultural awareness requirement.

(3) Credits for PLSC 111 are counted in the Liberal Studies social science requirements.

(4) PLSC 280 and/or 285 recommended as prerequisite to PLSC 380 through 389.

**Political Science/Homeland Security**

Homeland security is the intersection of evolving threats, to include terrorism and other risks to national security, and natural and man-made hazards with traditional governmental and civic responsibilities. This multi-disciplinary track is built upon a political science core (required courses), with an emphasis on administration and policy (controlled electives). Students will choose between specializing in Homeland Defense or Emergency Management. The Homeland Defense specialization will focus on identifying risks to the homeland’s security and essential infrastructure, and developing policy and strategy that mitigate, if not obviate, these risks. The Emergency Management track will focus on the twin facets of program administration and emergency management, sometimes called disaster or crisis management. The Political Science/Homeland Security major track emphasizes critical and creative thinking, information literacy, oral and written communications, interpersonal relations and teamwork. The knowledge and skills students will gain will prepare them to work in private businesses; emergency and safety management; private security; airports and border patrol; local, state, and federal law enforcement; and military service.

**Bachelor of Arts—Political Science/Homeland Security Track**

**Liberal Studies:** As outlined in Liberal Studies section with the following specifications

- **Mathematics:** 3cr
- **Social Science:** PLSC 111
- **Liberal Studies Electives:** 6cr, no courses with PLSC prefix

**College:**

- **Foreign Language Intermediate Level (1)**

  **Major:** 33 cr

  **Required Courses:**
  - PLSC 101 World Politics (2) 3cr
  - PLSC 111 American Government 3cr
  - PLSC 260 Contemporary Political Ideas 3cr
  - PLSC 300 Research Methods in Political Science 3cr

  **Controlled Electives:** 9cr
  - Students must take three of the following controlled electives in the area of public policy/administration:
    - PLSC 250 Public Policy 3cr
    - PLSC 355 Intergovernmental Relations 3cr
    - PLSC 370 The Practice of Public Administration 3cr
    - PLSC 372 Constitutional Issues in Homeland Security 3cr
    - PLSC 375 Crisis Management and Decision Making 3cr

  **Specializations:**
  - Students must take four courses in their specialization. At least two courses must have a prefix other than PLSC.

  **Homeland Defense (12cr)**
  - BCOM 342 Intercultural Business Communication 3cr
  - COMM 101 Communications Media in American Society 3cr
  - COSC 316 Introduction to Cyber Security 3cr
  - COSC 356 Network Security 3cr
  - COSC 429 Digital Forensics 3cr
  - COSC 454 Information Assurance Administration 3cr
  - CRIM 205 Policing and the Community 3cr
  - CRIM 255 Law, Social Control, and Society 3cr
  - CRIM 321 Cybersecurity and Loss Prevention 3cr
  - CRIM 323 Cybersecurity and the Law 3cr
  - CRIM/PLSC 344 Terrorism 3cr

  **Emergency Management (12cr)**
  - BIOI 107 Introduction to Forensic Biology 3cr
  - BIOI 119 Emerging Diseases 3cr
  - BIOI 221 Environmental Health and Protection 3cr
  - BCOM 342 Intercultural Business Communication 3cr
  - CHEM 105 The Forensic Chemistry of CSI 3cr
  - COMM 101 Communications Media in American Society 3cr
  - CRIM 205 Policing and the Community 3cr
  - CRIM 255 Law, Social Control, and Society 3cr
  - CRIM 374 Environmental Crime and Justice 3cr
  - CRIM 401 Contemporary Issues in Criminology 3cr
  - GEOG/PLSC 339 Jihad and the Origins of Islamist Movements in the Middle East 3cr
  - HIST/PLSC 348 Top Secret America: The Rise and Reach of the National Security State 3cr
  - PLSC 350 The Presidency 3cr
  - PLSC 388 Dimensions of National Security (4) 3cr
  - PLSC 465 Intelligence Process and Policy 3cr
  - SOC 337 Society, Globalization, and Risk 3cr

  **Free Electives:** 34-41 cr

  **Total Degree Requirements:** 120 cr

(1) Intermediate-level foreign language may be included in Liberal Studies electives.
(2) PLSC 101 satisfies the global and multicultural awareness requirement.  
(3) Credits for PLSC 111 are counted in the Liberal Studies social science requirements.  
(4) PLSC 280 and/or 285 is recommended as a prerequisite for PLSC 388.

Bachelor of Arts—Political Science/Pre-law Track

Liberal Studies: As outlined in Liberal Studies section with the following specifications:  
Mathematics: 3cr  
Social Science: PLSC 111  
Liberal Studies Electives: 6cr, no courses with PLSC prefix  
College:  
Foreign Language Intermediate Level (1)  
0-6  
Required Courses:  
PLSC 101 World Politics (2) 3cr  
PLSC 111 American Government (3) 3cr  
PLSC 260 Contemporary Political Ideas 3cr  
PLSC 300 Research Methods in Political Science 3cr  
Controlled Electives:  
At least one course in three of the four areas:  
Political Theory: PLSC 360, 361, 362  
Public Policy and Administration: PLSC 250, 370, 371  
Other Requirements: Pre-law Interdisciplinary Track  
Seven courses, including at least one from each of six areas:  
Business: ACCT 201, ACCT 202, BLAW 235  
Criminology: CRIM 210, 215, 225, 255  
Economics: ECON 121, 122, 332  
English: ENGL 212, 227, 265, 310, 321  
History: HIST 320, 341, 342, 346, 475  
Philosophy: PHIL 101, 122, 130, 221, 270, 320, 450  
Free Electives:  
13-20  
Total Degree Requirements:  
120  
(1) Intermediate-level foreign language may be included in Liberal Studies electives.  
(2) PLSC 101 satisfies the global and multicultural awareness requirement.  
(3) Credits for PLSC 111 are counted in the Liberal Studies social science requirements.  
(4) PLSC 280 and/or 285 recommended as prerequisite to PLSC 380 through 389.

Bachelor of Arts—International Studies/Political Science

Liberal Studies: As outlined in Liberal Studies section with the following specifications:  
Mathematics: 3cr  
Social Science: PLSC 111  
Liberal Studies Electives: 6cr, no courses with PLSC prefix  
College:  
Foreign Language Intermediate Level (1)  
0-6  
Major:  
Required Courses:  
PLSC 101 World Politics 3cr  
PLSC 111 American Government (2) *cr  
PLSC 260 Contemporary Political Ideas 3cr  
PLSC 282 International Relations 3cr  
PLSC 300 Research Methods in Political Science 3cr  
Specializations:  
International Political Economy 21cr  
Required specialization course: PLSC 422  
Six courses from the following: ACCT 471; BCOM 342; COMM 320; ECON 121, 325, 326, 339, 345, 346, 350; FSMR 357; GEOG 231, 333; MGMT 350, 451, 454, 459; MKTG 350, 430; PLSC 381, 383; SOC 337  
International Security Studies  
Required specialization course: PLSC 283, 388, or 465  
Six courses from the following: BIOL 117, 119; CRIM 344; ECON 361; GEOG 230, 331, 334, 335, 341; HIST 251, 308, 361, 362; JRNL 375; PLSC 283*, 422, 388*, 465*, RLST 110, 200  
*(if not taken as the required specialization course)  
International Political Systems  
Required specialization course: PLSC 280, 285, or 389  
*(if not taken as the required specialization course)  
Other Requirements: (3) 0  
Free Electives:  
12-20  
Total Degree Requirements:  
120  
(1) Intermediate-level foreign language may be included in Liberal Studies electives.  
(2) Credits for PLSC 111 are counted in the Liberal Studies social science requirements.  
(3) Majors are strongly encouraged to take advantage of the study abroad opportunities available through IUP departmental programs and of exchange opportunities available through the Office of International Education.

Minor—Political Science  
Required Courses:  
PLSC 101 World Politics 3cr  
PLSC 111 American Government (1) 3cr

Minor—Homeland Security  
Required Courses:  
PLSC 101 World Politics (1) 3cr

Minor—International Studies  
Required Courses:  
PLSC 101 World Politics 3cr
Department of Religious Studies

Website: www.iup.edu/religiousstudies
Theresa S. Smith, Chair

The Religious Studies program is designed to provide a balanced, non-sectarian, cross-cultural approach leading to a better understanding of the phenomenon of religion in human experience. It emphasizes an interdisciplinary approach and encourages the minor or a double major, as well as a single major in religious studies.

The program is valuable for those planning to teach about religions or religious studies in schools at the primary, secondary, or college level. The program also provides an excellent background for graduates planning to enter Catholic, Jewish, or Protestant seminaries. Additionally, religious studies is a good complement to majors in such fields as anthropology, English, fine arts, history, international studies, music, philosophy, political science, psychology, and sociology.

Religious Studies Minor

The requirements for a minor are 18 credits with the RLST prefix, including certain required courses. At least 6 credits must be taken at the 300 level or higher.

Religious Studies Honors Program

The honors program is open by departmental invitation to religious studies majors with a minimum 3.25 cumulative GPA and a 3.5 GPA in religious studies courses. Students complete RLST 480/H, 483/H, 493/H, and HNRC 499, which fulfills the Liberal Studies synthesis requirement. To determine how Honors Track courses will be integrated into existing requirements for the religious studies major, students should consult their advisors.

Liberal Studies Offerings

The Religious Studies program’s Liberal Studies courses are all introductory in nature; none presupposes any religious studies background. The student may choose from RLST 100, 110, 250, and 290.

Bachelor of Arts—Religious Studies

Liberal Studies: As outlined in Liberal Studies section with the following specifications:

Mathematics: 3cr
Liberal Studies Electives: 6-9cr, no courses with RLST prefix

College:
Foreign Language Intermediate Level (1)

Major:
Controlled Electives: (2)
Core: RLST 300
Abrahamic: RLST 380, 385, or 388
Asian: RLST 311, 370, 373, 375, 378
Indigenous: RLST 360 or 365
One capstone course: RLST 401, 402, or 403
Five additional RLST courses (3)

Free Electives:

Total Degree Requirements:

(1) Intermediate-level foreign language may be included in the Liberal Studies electives.
(2) Other courses may be approved in consultation with advisor.
(3) Consult religious studies advisor.

Minor—Religious Studies

Core: RLST 300 3cr
Abrahamic: RLST 380, 385, or 388 3cr
Asian: RLST 311, 370, 373, 375, or 378 3cr
Indigenous: RLST 360 or 365 3cr
One capstone course: RLST 401, 402, or 403 3cr
Elective: One RLST course 3cr

(1) At least 6cr must be taken at the 300 level or higher.

Religious Studies Honors Track 12

Required Courses:
RLST 480/H Seminar in Religious Studies 3cr
RLST 483/H Honors Thesis in Religious Studies 3cr
RLST 493/H Internship in Religious Studies 3cr

(1) Credits for HNRC 499 are counted in the Liberal Studies synthesis requirement.

Department of Sociology

Website: www.iup.edu/sociology
D. Alex Heckert, Chair

The Department of Sociology seeks to develop both the scientific and humanistic foundations of sociology, to educate the wider community as to the significance of sociological knowledge, to apply sociological knowledge to current social problems, and to advance the profession by promoting the welfare of individuals and society. The discipline of sociology focuses primarily on the analysis of modern industrial societies by examining their basic patterns of social organization, the various changes that occur within these patterns, and the impact of the patterns on individual thought and action. Students are prepared for employment in human service fields or for graduate study in sociology or related fields.

Students majoring in sociology may select one of three tracks: General Sociology, Human Services, and Sociology of Disability Services. The General Track attempts to broadly educate those students who may wish to pursue graduate training in sociology and make sociology a career and profession. Because of its flexibility, it is also appropriate for students who want to pursue double majors that would include such fields as psychology or criminology. The General Track gives students the broadest possible training in sociology. Students graduating with majors in general sociology often find employment in business, industry, and government.

The Human Services Track in sociology seeks to help students understand the causes of many of the problems that plague modern societies, such as poverty, racial discrimination, substance abuse, and domestic violence. It is designed to provide students with the knowledge and skills necessary to become practitioners in various human services areas (e.g., juvenile delinquency, medical sociology, gerontology, and interpersonal dynamics and family sociology).

Students who complete Sociology of Disability Services Track, specialized major track, will be prepared for employment in the human services/social services as therapeutic staff support personnel or in a wide variety of career services such as mental health/mental retardation programs, community-based residential/employment/training programs, early intervention programs, residential treatment programs, aging programs, and other agency service providers for individuals with disabilities. Additionally, students in this track are encouraged to complement their studies by adding a second major in disability services or a minor in special education, offered by the Department of Communication Disorders, Special Education, and Disability Services to better prepare them in a multidisciplinary curriculum. Minors are also recommended in psychology or child development and family relations.

The department also prepares teachers for secondary school social studies with a concentration in sociology. The program leads to the bachelor of science in education degree. With its emphasis on patterns of social organization in modern industrialized societies, sociology provides a solid foundation for teaching social science at the secondary level. Minors in sociology are available in the following tracks: General Sociology, Human Services, and Sociology of Disability Services.

Sociology Honors Program

The honors program is open by departmental permission to declared sociology majors with a minimum 3.25 cumulative GPA and a 3.5 declared GPA.
in sociology courses. Students who are considering attending graduate school are encouraged to apply to the honors program. Students complete two 500, 600, or 700 Sociology (SOC) master’s-level courses and 6 credits of SOC 483. Students may not repeat 500 dual-level courses if the student has already taken the course at the 400-level. Students must meet graduate school requirements before enrolling in graduate-level courses. Students should be aware that, in accordance with university policy, graduate-level courses taken for the Honors Track cannot later be applied toward an IUP graduate program. SOC 320 is a prerequisite for enrollment in graduate classes and thesis credits. Pending approval, a student may substitute up to two honors courses for one or two of the graduate-level courses. Students must earn at least a grade of “B” in each course completed for the track and must maintain a 3.25 cumulative GPA. To determine how Honors Track courses will be integrated into existing requirements for the sociology major, students should consult their advisors.

Students may be invited to apply or may nominate themselves. In either case, to be considered for the Sociology Honors Track, students must have earned 15 credits in sociology. Sociology majors who have met the eligibility requirements must submit an application to the Chair of the Department of Sociology after they have earned at least 60 credits, but prior to their senior year. Students are encouraged to apply for the honors program in the last semester of their sophomore or first semester of their junior year.

**Bachelor of Arts—Sociology/General Sociology Track**

**Liberal Studies:** As outlined in Liberal Studies section 46-48

**Mathematics:** MATH 217 recommended

**Social Science:** SOC 151 or 161

**Liberal Studies Electives:** 6cr, no courses with SOC prefix

**College:**

Foreign Language Intermediate Level (1) 0-8

**Major:** 33

**Required Courses:**

SOC 151 Principles of Sociology or 161 Foundations of Sociology: Social Relations in Groups and Organizations *cr (2)

SOC 320 Sociological Theory 3cr

SOC 460 Social Research Methods I 3cr

SOC 461 Social Research Methods II 3cr

One course from the following:

SOC 361 Social Stratification 3cr

SOC 362 Racial and Ethnic Minorities 3cr

SOC 363 Sociology of Gender 3cr

At least one different course from four of the following substantive areas:

12cr

- **Social Inequality and Social Change:**
  - SOC 269, 337, 361, 362, 363, 387, 448, 452, 458

- **Deviance and Social Problems:**
  - SOC 231, 269, 333, 335, 427, 428, 452

- **Individual in Society:**
  - SOC 251, 269, 345, 357, 452

- **Social Organization and Institutions:**
  - SOC 286, 336, 340, 341, 348, 352, 421, 442, 458

**Comparative Sociology:**

SOC 233, 271, 272, 273, 286, 314, 337, 387, 442

Free Sociology Electives (3) 9cr

**Free Electives:**

31-41

**Total Degree Requirements:**

120

- (1) Intermediate-level foreign language may be included in Liberal Studies electives.
- (2) Credits counted in Liberal Studies, not in the major.
- (3) Internship in Sociology (SOC 493) will not count as part of the required free sociology electives and must count as credits beyond the 33cr required for the major (out of free electives). The student must write a one-page justification explaining the selection of his/her 9cr of free sociology electives as it relates to the internship experience.

**Bachelor of Arts—Sociology/Human Services Track**

**Liberal Studies:** As outlined in Liberal Studies section 46-48

**Mathematics:** MATH 217 recommended

**Social Science:** SOC 151 or 161 required, ANTH 110 and PSYC 101 recommended

**Liberal Studies Electives:** 6Cr, no courses with SOC prefix

**College:**

Foreign Language Intermediate Level (1) 0-6

**Major:** 42

**Required Courses:**

SOC 151 Principles of Sociology or 161 Foundations of Sociology: Social Relations in Groups and Organizations *cr (2)

SOC 320 Sociological Theory 3cr

SOC 391 Foundations of Sociological Practice 3cr

SOC 460 Social Research Methods I 3cr

SOC 461 Social Research Methods II 3cr

SOC 493 Internship in Sociology (3) 12cr

**Controlled Electives:** One substantive area (4, 5) 15cr

**Medical Sociology:** SOC 442, and four courses from the following:

- ANTH 222, 444, BIOL 240 or 155, ECON 335, FDNT 212, PSYC 321, 378, SOC 231, 336, 357, 387, 448, 452, 457

**Gerontology:** SOC 357, and four courses from the following:

- ANTH 444, ECON 335, PSYC 312, 378, SOC 231, 251, 336, 352, 375, 387, 442, 448, 457

**Juvenile Delinquency:** SOC 333, and four courses from the following:

- CRIM 102, 225, 235, 394, GEOG 230, 231, HIST 374, SOC 231, 269, 335, 336, 345, 361, 362, 387, 428, 448, 457

**Interpersonal and Family Sociology:** SOC 336 or 345, and four courses from the following:

- CDFR 218, 224, PSYC 311, 321, 330, SOC 251, 269, 333, 335, 336, 345, 361, 362, 363, 387, 427, 428, 448, 452, 457, SOWK 238

**Labor and Industry:** SOC 340 or 348, and four courses from the following:


**Community Development:** SOC 231 or 448, and four courses from the following:


**Free Electives:** 22-32

**Total Degree Requirements:** 120

- (1) Intermediate-level foreign language may be included in Liberal Studies electives.
- (2) Credits counted in Liberal Studies, not in the major.
- (3) SOC 391 and 392 must be taken before SOC 493. Generally, SOC 493 is taken in the summer before or after the senior year.
- (4) Students may create their own substantive area with the approval of the department Chair.
- (5) At least four courses in any substantive area must be SOC/SOWK courses.

**Bachelor of Arts—Sociology/Sociology of Disability Services Track**

**Liberal Studies:** As outlined in Liberal Studies section 46-48

**Mathematics:** MATH 217 recommended

**Social Science:** SOC 151 or 161 and PSYC 101 required, ANTH 110 recommended
Bachelor of Science in Education—Social Science Education/Sociology Track (*)

Liberal Studies: As outlined in Liberal Studies section with the following specifications:

- Humanities: History is fulfilled by courses in the major
- Mathematics: MATH 217 (recommended)
- Natural Science: BIOL 103-104 (recommended)
- Social Science: ECON 121, PSYC 101, SOC 151 or 161

Liberal Studies Electives: 6cr, PSYC 310 or 330, no courses with SOC prefix

College: 35

3 additional credits of MATH 100-level or above (in addition to Liberal Studies Mathematics) (1)

Preprofessional Education Sequence:

- ACE 103 Digital Instructional Technology 3cr
- EDSP 102 Educational Psychology 3cr

Professional Education Sequence:

- EDEX 342 Social Studies Teaching Lab 1cr
- EDEX 301 Education of Students with Disabilities in Inclusive Secondary Settings 2cr
- EDEX 323 Instruction of English Language Learners with Special Needs 2cr
- EDSP 477 Assessment of Student Learning: Design and Interpretation of Educational Measures 3cr
- EDUC 242 Pre-student Teaching Clinical Experience I 1cr
- EDUC 242 Pre-student Teaching Clinical Experience II 1cr
- EDUC 441 Student Teaching 12cr
- EDUC 442 School Law 1cr

EDUC 455 Teaching of Social Studies in Secondary Schools 3cr

Major: (2)

Required Sociology Courses:

- SOC 231 Contemporary Social Problems 3cr
- SOC 320 Sociological Theory 3cr
- SOC 336 Sociology of the Family 3cr
- SOC 460 Social Research Methods I 3cr

Controlled Electives:

One course on social equity from the following:

- SOC 361, 362, 363 3cr

Two additional courses: one each from any two of the following three categories:

- Deviance and Social Problems:
  - SOC 269, 333, 335, 357, 427, 428, 452

- Individual in Society:
  - SOC 251, 345

- Social Organizations and Institutions:

History Distribution Requirements: 9

- HIST 202 Western Civilization since 1600 3cr
- HIST 204 United States History to 1877 3cr
- HIST 205 United States History since 1877 3cr

Social Science Distribution Requirements: 9

- ANTH 211 Cultural Anthropology 3cr
- GEOG 230 Cultural Geography 3cr
- PLSC 280 or 285 Comparative Government I: Western Political Systems or Comparative Government II: Non-Western Political Systems 3cr

Free Electives: 1-3

Total Degree Requirements: 120

(*): See requirements leading to teacher certification, titled “3-Step Process for Teacher Education,” in the College of Education and Communications section of this catalog. To student teach, students must have a 3.0 cumulative GPA in the major (social science and history courses). To be licensed to teach education/sociology, majors must apply for social studies education certification.

(1) Students are required to take an additional 3cr of MATH beyond the Liberal Studies requirements for a total of 6cr, all of which must be 100 level or above.

(2) Courses counted toward Liberal Studies credits do not receive duplicate credits in the major.
Minor—Sociology/Human Services

Required Course:
SOC 151 Principles of Sociology or
or 161 Foundations of Sociology: Social Relations in
Groups and Organizations 3cr
SOC 391 Foundations of Sociological Practice 3cr
SOC 392 Clinical Sociological Practice 3cr

Controlled Electives:
One course from the following: SOC 320, 361 3cr
Two additional courses in SOC/SOWK, at least one of which must be 300 level or above 6cr

Sociology Honors Track

Prerequisites: Declared major in sociology and completion of 60cr, SOC 320, and 12 additional credits in SOC

Required Courses:
CHSS 489/H/ Honors Colloquium 3cr
HNRC 499 Honors Senior Synthesis *cr (1)
SOC 483/H/ Honors Thesis in Sociology 6cr

(1) Credits for HNRC 499 are counted in the Liberal Studies synthesis requirement.
College Majors
• Biochemistry
• Biology (Tracks available: Cell and Molecular; Ecology, Conservation, and Environmental Biology; Environmental Health; Pre-medical; Pre-veterinary; Honors)
• Biology Education
• Chemistry (Tracks available: Interdisciplinary Chemistry, Pre-medical, and Pre-pharmacy)
• Chemistry Education
• Computer Science (Tracks available: Cyber Security, Languages and Systems, Software Engineering)
• Earth and Space Science Education
• Environmental Engineering
• Geology (Tracks available: Geology, Energy Resources, Environmental)
• Mathematics (Tracks available: Actuarial, Applied)
• Mathematics Education
• Natural Science (Tracks available: Pre-audioiology, Pre-chiropractic, Pre-dentistry, Pre-optometry, Pre-pharmacy, Pre-physical Therapy, Pre-physician Assistant, Pre-podiatry)
• Physics (Tracks available: Applied Physics, Nanomanufacturing Technology, Pre-engineering)
• Physics Education
• Psychology (Track available: Honors)

Interdisciplinary Programs, Minors and Certificates
The Interdisciplinary degree programs, minors, and certificates are multi-disciplinary and are not specific to one university college. Requirements for each of the interdisciplinary offerings appear in the Academic Affairs section.

Degree Programs: Public Health (Available Tracks: Behavioral and Mental Health, Environmental and Occupational Health, Epidemiology and Biostatistics, Global and Rural Communities)

Minors: Child and Adult Advocacy Studies, Global Health, Pre-Law, Professional Teamwork and Leadership, Sustainability Studies

Certificates: Child Adult and Advocacy Studies, Living Learning (Available Tracks: Global Scholarship, Scientific Communication), Shale, Gas, and Energy

Degree Requirements
In addition to the university’s Liberal Studies requirements, all students seeking a baccalaureate degree in the KCNSM must complete the requirements for a major as established by the department through which they wish to specialize. Statements of these requirements and those for minoring in a specific field appear in the department sections that follow. A double major or minor may encompass a discipline outside as well as within the college but should be selected only with advisor approval. As a general principle, there is considerable latitude in course choice for Natural Sciences and Mathematics majors; for specifically required courses, substitution in any program must have the written approval of the student’s department chair or the college dean.

Degrees
Students may earn a bachelor of arts degree in biology, computer science or psychology. All other undergraduate tracks and programs are awarded bachelor of science degree.

Several departments in the college sponsor master of science, or professional science master’s degrees. The Department of Psychology offers the doctor of clinical psychology degree. Information on these programs can be obtained from the School of Graduate Studies and Research.

Minors
Each department in the college offers a minor in their discipline. In addition, departments in the college participate in cross-disciplinary minors in Child and Adult Advocacy Studies (CAAST), Effective Teamwork and Communication, Sustainability Studies, Forensic Biosciences, and Cyber Security. The requirements for all minors are in the college and departmental sections that follow.

The Foreign Language Requirement
Several programs require some level of foreign language competency. See individual program requirements for more information.

Any foreign student, registered as such at IUP, whose acquired native language is other than English and who demonstrates an acceptable proficiency in English, is exempt from the foreign language requirement for a Natural Sciences and Mathematics degree if the department he/she is majoring in does not require a specific language not thus covered.

Internship Programs
Several departments in the KCNSM have established extensive internship programs under which students engage in an off-campus supervised work experience for credit. For more information about specific internship programs, students should consult with the chair of the department in which the student is majoring. Students eligible for internships may receive federal or state funding.

Preprofessional Programs
The college offers programs for the preparation of students for acceptance by a professional school: pre-medical (including osteopathic medicine) and pre-veterinary medicine. In addition, the college offers a major in the natural sciences for those students whose goal is audiology, dentistry, pharmacy or pharmacology, optometry, podiatry, chiropractic medicine, physician assistant or physical therapy. All programs are so designed that, should work at a professional school not ensue, the student may earn an IUP baccalaureate degree, provided he/she has been faithful to faculty advisement.

The preprofessional health programs in the college presuppose that the student has an excellent background in the high school sciences and mathematics and will prove to be an excellent college student. Students should identify their proposed field of study upon admission to IUP.
Cooperative Programs

IUP has been fortunate to enter into cooperative agreements with a number of outstanding institutions to provide significant career opportunities to students. These formal agreements provide for accelerated graduate or professional degree programs or carefully planned and coordinated undergraduate programming with the cooperating institution. Programs are intended to ensure acceptance of properly qualified students by the cooperating professional schools. Additional information about specific programs can be found under the appropriate academic department in this catalog.

- **Chiropractic** (See Natural Science): The New York Chiropractic College, Palmer Chiropractic College, Sherman College of Straight Chiropractic, Parker College of Chiropractic, and Logan Chiropractic College programs are designed to accelerate professional training of IUP students in the field of chiropractic medicine.

- **Dentistry** (see Natural Science): The Temple University School of Dentistry program is designed to accelerate the professional training of IUP students in the field of dentistry.

- **Jefferson Medical College, Physician Shortage Area Program** (See Department of Biology): The program increases the opportunities for IUP students to be admitted to Jefferson Medical College.*

- **Lake Erie College of Osteopathic Medicine (LECOM)** (See Department of Biology): LECOM and IUP have a cooperative “3+4” program. Students will be awarded a BS degree with a major in biology from IUP upon successful completion of the first-year curriculum at LECOM and of the undergraduate requirements at IUP.*

- **Optometry** (See Natural Science): The Pennsylvania College of Optometry program accelerates the professional training of IUP students in the field of optometry.

- **Pharmacy** (see Natural Science): The Shenandoah University School of Pharmacy or LECOM School of Pharmacy programs are designed to accelerate the professional training of IUP students in the field of pharmacy.

- **Physical Therapy** (see Natural Science): The Gannon University School of Physical Therapy program is designed to enhance the professional training of IUP students in the field of physical therapy.

- **Physician Assistant** (See Natural Science): The Salus University Physician Assistant Studies program accelerates the professional training of IUP students in the field of physician assistant.

- **Podiatry** (See Natural Science): The Temple University School of Podiatric Medicine program accelerates the professional training of IUP students in the field of podiatry.

- **Primary Care Scholars Program:** This program enables the college to identify students with primary care potential and to provide these students with the opportunity to interact with primary care faculty, physicians, and medical students at the Pennsylvania State University College of Medicine for one week during the summer.*

- **Philadelphia College of Osteopathic Medicine (PCOM)** (See Department of Biology): PCOM has established this “3+4” Early Acceptance program with IUP. The program will enable students who have demonstrated academic excellence and a commitment to the practice of medicine to gain a provisional acceptance to PCOM. Students will be awarded a BS degree with a major in biology from IUP upon successful completion of the first-year curriculum at PCOM and the undergraduate requirements at IUP.*

*Contact the pre-medical advisor, N. Bharathan, for specific information.

Environmental Engineering

**Advisor:** Sajad Hamidi, Hau Tang

Environmental Engineering is a multi-disciplinary program that prepares students to work to minimize the impact of human development and technology on the natural world. Their interests include water purification, pollution control, public health, recycling, waste disposal, and sustainable design and manufacturing. Graduates trained in basic sciences and mathematics will use the principles of engineering, geosciences, chemistry, biology, and physics to develop solutions to environmental problems. This degree program combines a solid grounding in college-level basic sciences and mathematics with environmental engineering and technical courses.

Graduates of the BS program in Environmental Engineering will be qualified to enter the workforce immediately or to further their educations in master’s or doctoral programs. The degree program will prepare students to apply mathematical and scientific principles to the design, development, and operational evaluation of systems for controlling contained living environments and for monitoring and controlling factors in the external natural environment, including pollution control, waste and hazardous material disposal, health and safety protection, conservation, life support, and requirements for protection of special materials and related work environments.

Graduates of this program will possess the technical expertise required to maintain a healthy balance between societal welfare, economic growth, and the environment surrounding us, and will be in demand in the Pennsylvania workforce where the need for environmental engineers is projected to grow faster than other occupations.

**Bachelor of Science—Environmental Engineering**

**Liberal Studies:** As outlined in the Liberal Studies section with the following specifications:

**Humanities:** PHIL 122

**Mathematics:** MATH 125

**Natural Science:** CHEM 111-112 or CHEM 113-114

**Social Science:** ECON 101; RGPL 103 or GEOG 104

**Liberal Studies Electives:** 3cr, MATH 126

**Major:**

**Required Courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIOL 202</td>
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</tr>
<tr>
<td>GEOS 201</td>
<td>4cr</td>
</tr>
<tr>
<td>MATH 171</td>
<td>3cr</td>
</tr>
<tr>
<td>MATH 216</td>
<td>3cr</td>
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<td>MATH 225</td>
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<td>PHYS 132</td>
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<tr>
<td>PHYS 141</td>
<td>1cr</td>
</tr>
<tr>
<td>PHYS 142</td>
<td>1cr</td>
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**Environmental Engineering Core:**

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>ECON 361</td>
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<td>ENVE 201</td>
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<td>ENVE 495</td>
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<td>SAFE 435</td>
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**Free Electives:**

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<th>Course</th>
<th>Credits</th>
</tr>
</thead>
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<tr>
<td>BIOL 221, 250, 323, 401, CHEM 231, 325, 351, COSC 110, 250, GEOG 316, 415, 419, GEOS 312, IFMG 110, 250, MATH 342, SAFE 310, 361 and foreign language intermediate sequence (6cr) are recommended.</td>
<td></td>
</tr>
</tbody>
</table>

**Total Degree Requirements:** 120
**BS—Biology**

In addition to the bachelor of science degree with no specialization, the department also offers these specialized bachelor of science tracks: Cell and Molecular Biology; Ecology, Conservation, and Environmental Biology; Environmental Health; Honors Biology; Pre-medical Biology; and Pre-veterinary Biology. Students who pursue the Pre-medical or Pre-veterinary Track must maintain a minimum cumulative GPA of 3.0 after their third semester in the program to continue in that track. All students, including transfer students, must have a cumulative GPA of 3.0 or higher to transfer into the Pre-medical or Pre-veterinary Track after their third semester.

The bachelor of science degree program in biology with no specialization is designed to provide maximum depth in the sciences and mathematics, combined with flexibility in the choice of ancillary science courses. This program allows the student (in consultation with the advisor) to select a suite of ancillary science and mathematics courses that is most appropriate to the student’s specific interests within the field of biology. With proper selections from among ancillary science courses, a student could minor in any of the following: biochemistry, chemistry, geoscience, or applied statistics. Furthermore, with proper selection of free electives, a student could minor in either mathematics or physics.

**BA—Biology**

The bachelor of arts degree program in biology is designed for students who wish to combine a primary academic interest in biology with a secondary interest in a complementary field. Through the choice of complementary field and free electives, this curriculum allows the greatest overall flexibility in a student’s program of study. The complementary field also allows pursuit of a minor or a double major in the secondary area of interest. The primary biology major combined with a double major or a minor in the complementary field can make an attractive educational package for the student and for potential employers. Examples of complementary fields that might enhance a student’s competitiveness in the job market include anthropology, business administration, computer science, criminology (for forensic science), English (for technical writing), foreign language, geoscience, marketing, pre-law, or psychology.

**BS—Biology/Cell and Molecular Biology Track**

Students electing the bachelor of science degree with an emphasis in cell and molecular biology take the core biology courses and, in addition, a collection of upper-division courses that focus collectively on important aspects of modern cell and molecular biology. This track will prepare students for employment in technical positions or for graduate studies in cell biology, molecular biology, biotechnology, or related biomedical disciplines.

**BS—Biology/Ecology, Conservation, and Environmental Biology Track**

The Ecology, Conservation, and Environmental Biology (ECEB) Track includes all core biology courses and a selection of related courses that focus on ecological and environmental sciences. To achieve an environmental focus, the student must complete broad training in the sciences and mathematics. The track is designed to provide flexibility to allow pursuit of specialized interests within ECEB, including minors in other environmental disciplines (Applied Statistics, Geology, Geography, Regional Planning, and Sustainability). Course requirements for professional certification by the Ecological Society of America (Certified Associate Ecologist) and/or the Wildlife Society (Certified Wildlife Biologist) can be met within this track. This track prepares students for pursuing advanced degrees or employment in areas related to ecology and environmental sciences at universities, government, and private companies.

**BS—Biology/Environmental Health Track**

Students electing the bachelor of science degree with an emphasis in environmental health will take the core biology courses and a collection of upper-division courses that focus on environmental factors having an impact on human health. In addition, students will elect technical courses offered by other departments that provide analytical and problem-solving skills to identify, evaluate, and manage these factors. This track will prepare students for employment as environmental health specialists and practitioners in industry, government, and academia and for entry into graduate school programs in environmental and public health.

**BSEd—Secondary Biology**

The Department of Biology, in conjunction with the College of Education and Communications, provides a program leading to the bachelor of science in education with certification to teach biology. The program is committed to preparing teachers who possess a strong foundation in biology, a broad background in associated sciences, and an extensive preparation in pedagogy.

**Minors—Biology and Biomedical Science**

These minors are intended for students in the Nursing and Allied Health or Natural Science programs. Not for biology majors.

**Minor—Forensic Biosciences**

The goal of this interdisciplinary minor is to provide students with a broad-based understanding of the field of forensic biosciences. The minor allows students to gain both a deep understanding of a traditional discipline through their major field of study while gaining experience with various aspects of forensic biology and criminal investigations. It is not designed to provide students necessarily with the methods and measures of forensics, which will come from student’s undergraduate fields of study and/or future graduate study. The purpose is to give students an understanding of the basic issues and the applications of those methods within the context of forensic biology.

**Biology Honors Program**

The honors program is open by departmental permission to all majors in the Department of Biology. Students who, by the end of the first semester of their sophomore year, have a minimum 3.25 cumulative GPA will be invited to apply for the program. The application will include a transcript and a personal statement outlining the student’s academic plan, career goals, and why she or he wants to be considered for the honors program. A department honors committee (makeup to be determined by the department) will select a maximum of 12 students per year for the program.

Students accepted into the program will take BIOL 484 during the first semester of their junior year, two semesters of BIOL 483, and one 500- or 600-level BIOL course. The honors thesis will be based on research performed under the supervision of a department professor who specializes in the student’s area of interest and must be approved by a thesis committee made up of the faculty member directing the student and two others, one of whom may come from outside the Department of Biology.

Students interested in the Biology Honors Program should discuss this opportunity with their advisors as early as possible so that they have achieved the necessary GPA and are prepared to make application for the program in the spring of their sophomore year. This program, though designed for all qualified students within the Department of Biology, should be of particular value to students intending to seek admission to graduate or professional schools. Honors course work is designated on university transcripts. Students completing the departmental honors program are recognized at departmental commencement ceremonies.

**Accelerated MS Track**

The department offers an accelerated curriculum that provides an alternative pathway for progression through the requirements for the master of science degree with a major in biology. Although a graduate program, the Accelerated MS Track begins during and overlaps with the undergraduate program. By taking advantage of this track, a highly motivated undergraduate student can, with appropriate planning beginning in the junior year, tailor his or her curriculum to complete the requirements for both the BS—Biology and MS—Biology in a total of five calendar years. Upon completion of this accelerated program, students will be prepared for skilled technical positions in the industrial or academic workforce or for advanced study in outstanding graduate or professional schools. Undergraduate students should consult the Graduate Catalog or contact the Biology Department graduate coordinator for more information.
Certificate in Cell and Molecular Biology

For students who wish to obtain specialized training in cell and molecular biology without electing the major track, the department offers a 15-credit certificate program that consists of four core courses and one elective course. Completion of the certificate will help to prepare students for positions in the modern biotechnology workforce. Applications are available at 114 Weyandt Hall. For more information, call 724-357-2352.

Foreign Language Requirement

Some biology majors must complete intermediate-level or two semesters of foreign language starting at the highest level recommended by the freshman Preregistration Placement Test in that language (may be included in Liberal Studies electives). This requirement can also be met by demonstrating proficiency in a foreign language equivalent to the intermediate level. See individual tracks and programs for specific requirements.

Cooperative Programs

The department cooperates in programs with Jefferson Medical College, Lake Erie College of Osteopathic Medicine, and Pymatuning Laboratory of Ecology.

Jefferson Medical College, Physician Shortage Area Program (PSAP): IUP is a participating affiliate of the PSAP, established by Jefferson Medical College of Thomas Jefferson University in Philadelphia for the purpose of increasing the distribution of physicians practicing in underserved areas of Pennsylvania. To be eligible for this special program, students must be from, or have spent a significant amount of time living in, a non-urban area. Students interested in this program should enroll as biology/pre-medical majors.

This program will admit approximately four graduates of IUP and 20 graduates of other colleges each year. Students from IUP will be admitted only if properly qualified according to the admission standards and policies of Jefferson Medical College. Applications are reviewed by the Joint IUP-Jefferson Subcommittee, and recommendations are made to the Jefferson Committee on Admissions. Preference will be given to Pennsylvania residents who are interested in this program, with highest priority given to those who actually live, at the time of application, in the underserved area in which they hope to practice.

Osteopathic Medicine: IUP has “Early Acceptance” agreements with both Philadelphia College of Osteopathic Medicine and Lake Erie College of Osteopathic Medicine. These programs allow qualifying students to gain provisional acceptance into the medical college as long as they maintain a GPA of 3.4 or better in the Biology/Pre-medical curriculum at IUP and score 25 or higher on the MCAT with no score lower than 7 on any section. These programs are also known as “3+4” programs, since students may elect to enter the medical school after just three years at IUP. Students are awarded a bachelor of science degree with a major in biology from IUP upon successful completion of their three years of undergraduate requirements at IUP and the first-year curriculum at LECOM or PCOM.

To be considered for either of the “Early Acceptance” programs, students must be in the top 25 percent of their graduating class, have a minimum SAT score (Math + Verbal) of 1170 or a minimum ACT score of 26, and have additional evidence of scholarly/professional potential, leadership, and community involvement.

Pymatuning Laboratory of Ecology: Biology majors can expand their selection of course offerings by participating in a cooperative program with the University of Pittsburgh’s Field Station at the Pymatuning Laboratory of Ecology located in northwestern Pennsylvania. These elective courses center on ecological and environmental topics and vary annually. Application and registration for both summer sessions must be completed by April 1. Students usually register for credit and pay fees at IUP. Books, lab fee, and room and board are paid to the Pymatuning Laboratory of Ecology. The faculty advisor for this program assists students in program planning, application, and registration.

Degree Programs

In the programs of study that follow, no more than a total of 6 credits from internships, independent study, and special topics can be counted toward biology course requirements. Credits beyond 6 earned from these sources are counted as general electives. Note: Students changing into the majors of biology or biology education are required to have a 2.5 cumulative GPA or permission of the chair.

Bachelor of Arts—Biology

 Liberal Studies: As outlined in Liberal Studies section with the following specifications:

Mathematics: MATH 121 or 217

Natural Science: CHEM 111-112 or CHEM 113-114

Liberal Studies Elective: 3cr, no courses with BIOL prefix

Major:

Required Core Courses:

BIOL 201 Principles of Ecology and Evolution 4cr

BIOL 202 Principles of Cell and Molecular Biology 4cr

BIOL 203 Principles of Genetics and Development 4cr

Controlled Electives:

Biology electives (major courses only) (1) 21cr

Other Requirements:

PHYS 111 Physics I Lecture 3cr

PHYS 121 Physics I Lab 1cr

Ancillary Science Courses:

An additional 4-5 cr from the following (2, 3):

BIOC 301, 402, 311, 412, 401, 480, 490

CHEM 231, 332, 325, 326, 351

GEOS 201, 202, 203, 303, 310, 311, 312, 313, 351, 352, 353, 354, 326, 370, 371

MATH 122, 417, 418

PHYS 112, 122, 151, 161

PSYC 290, 291, 315, 331, 341, 342 or 345, 350, 355, 356, 359, 372

Planned Program in Complementary Field (requires advisor approval) with at least 6cr in 300-400-level courses (4)

Other Requirements:

Foreign Language Intermediate Level (5) 0-6cr

Exit survey for assessment purposes

Free Electives: 12-20

Total Degree Requirements: 120

(1) No more than 6cr total from Independent Study, Special Topics, or Internship applies to major; excess applied as free electives.

(2) If MATH 121 (4cr) is elected as the Liberal Studies Mathematics course the additional requirement is 4cr; if MATH 217 (3cr) is elected, the additional requirement is 5cr. The mathematics course counted in Liberal Studies cannot also count in ancillary courses.

(3) Other appropriate major courses at 200-level and above (excluding Liberal Studies courses) in the above departments may be substituted with permission of the advisor and the Biology Department chair in advance of taking the course.

(4) Recommended complementary fields include anthropology, art, business, chemistry, communications media, computer science, criminology, dietetics, economics, English, foreign language, geography, geoscience, journalism and public relations, mathematics, philosophy, physics, political science, psychology, regional planning, or safety science. Some courses in complementary field may also fulfill Liberal Studies requirements (see Liberal Studies section). However, if complementary field selected is chemistry, geoscience, mathematics, physics, or psychology, courses used to fulfill other requirements above may not be applied to the complementary field requirement of 15cr. Students are encouraged to seek additional interdisciplinary connections not listed here.

(5) (a) Two courses in one language, including the placement course; or (b) intermediate level. In lieu of a foreign language, students may elect to take a sequence of courses in either computer science, exclusive of COSC 101 (COSC 110 and 210 recommended), or geography/regional...
Bachelor of Science—Biology

Liberal Studies: As outlined in Liberal Studies section with the following specifications:
Mathematics: MATH 121
Natural Science: CHEM 111-112 or CHEM 113-114
Liberal Studies Elective: 3cr, no courses with BIOL prefix

Major:

Required Core Courses:
- BIOL 201 Principles of Ecology and Evolution 4cr
- BIOL 202 Principles of Cell and Molecular Biology 4cr
- BIOL 203 Principles of Genetics and Development 4cr

Controlled Biology Electives:

Total Degree Requirements:
- Bachelor of Science—Biology/Cell and Molecular Biology Track

Bachelor of Science—Biology/Cell and Molecular Biology Track

Liberal Studies: As outlined in Liberal Studies section with the following specifications:
Mathematics: MATH 121
Natural Science: CHEM 111-112 or CHEM 113-114
Liberal Studies Elective: 3cr, no courses with BIOL prefix

Major:

Required Core Courses:
- BIOL 201 Principles of Ecology and Evolution 4cr
- BIOL 202 Principles of Cell and Molecular Biology 4cr
- BIOL 203 Principles of Genetics and Development 4cr

Required Biology Courses:
- BIOL 123 Perspectives in Cell and Molecular Biology 1cr
- BIOL 401 Laboratory Methods in Biology and Biotechnology 3cr
- BIOL 405 Biology of the Cell 3cr
- BIOL 410 Molecular Biology Topics 3cr
- BIOL 466 Virology 3cr
- BIOL 499 Research Biology/BIOI 493 Biology Internship/BIOI 482 Independent Study/BIOI 483 Honors Thesis Independent Study 3cr

Controlled Biology Electives:

Total Degree Requirements:
- Bachelor of Science—Biology/Cell and Molecular Biology Track

Bachelor of Science—Biology/Cell and Molecular Biology

Liberal Studies: As outlined in Liberal Studies section with the following specifications:
Mathematics: MATH 121
Natural Science: CHEM 111-112 or CHEM 113-114
Liberal Studies Elective: 3cr, no courses with BIOL prefix

Major:

Required Core Courses:
- BIOL 201 Principles of Ecology and Evolution 4cr
- BIOL 202 Principles of Cell and Molecular Biology 4cr
- BIOL 203 Principles of Genetics and Development 4cr

Required Biology Courses:
- BIOL 205 Botany 3cr
- BIOL 220 General Zoology 3cr
- BIOL 272 Conservation of Plant and Animal Resources 3cr
- BIOL 262 Ecology 3cr
- BIOL 451 Evolution 3cr
- BIOL 490 Field Studies in Biology or 450 Field Biology at Pymatuning 3-4cr
Laboratory

Controlled Biology Electives: 6 cr
Biology major courses only (1)

Other Science Requirements: 20 cr
GEOS 201 Foundations of Geology 4 cr
PHYS 111 Physics I Lecture 3 cr
PHYS 121 Physics I Lab 1 cr
Controlled Electives: (2) 12 cr
Select 12 cr from the following (cannot include Liberal Studies Elective, or courses counting toward Other Requirements):
ANTH 222, 250, 420; BIOC 301, 402, 311, 412; BIOL (majors courses only); CHEM 231, 332, 325, 326, 351; COSC 105, 110, 210, 310, 341; CRIM 374; ECON 122, 361; GEOG 331, 419, 425, 435; GEOG/RGPL 213, 231, 313, 314, 316, 341, 342, 343, 345, 415, 424, 440, 464; GEOS 202, 203, 302, 303, 310, 311, 322, 324, 352, 353, 370, 371; MATH 122, 171, 309, 341, 342, 363, 411, 412; PHIL 270, 330; PHYS 112, 122, 231; PSYC 330, 331; RGPL 350, 426; SAFE 310; SUST 201

Other Requirements: 0-6 cr
Course sequence in one of the following areas (may not be counted toward Ancillary Courses):
1) Foreign Language: one course at Intermediate Level or two semesters beyond placement.
2) Computer Science: Select two from the following: COSC 105, 110, 210.
3) Geography/Regional Planning: Select two from the following: GEOG/RGPL 213, 314, 415, 424.

Free Electives: 9-16 cr

Total Degree Requirements: 120 cr
(1) No more than 6 cr total from Independent Study, Special Topics, or Internship applies to major; excess applied as free electives.
(2) Other appropriate BIOL courses at 200 level and above (excluding Liberal Studies courses) in the above departments may be substituted with permission of the advisor and the Biology Department chair in advance of taking the course.

Bachelor of Science—Biological/Environmental Health Track

Liberal Studies: As outlined in Liberal Studies section with the following specifications:
- Mathematics: MATH 121
- Natural Science: CHEM 111-112 or CHEM 113-114
- Social Science: ECON 101, PSYC 101 or SOC 151 or 161
- Liberal Studies Elective: 3 cr, BTED/COSC/IFMG 101, no courses with BIOL prefix

Major: 41 cr

Required Core Courses:
- BIOL 201 Principles of Ecology and Evolution 4 cr
- BIOL 202 Principles of Cell and Molecular Biology 4 cr
- BIOL 203 Principles of Genetics and Development 4 cr

Required Biology Courses:
- BIOL 220 General Zoology 3 cr
- BIOL 221 Environmental Health and Protection 4 cr
- BIOL 240 Human Physiology 4 cr
- BIOL 250 Principles of Microbiology 4 cr
- BIOL 323 Introduction to Toxicology and Risk Assessment 3 cr
- BIOL 460 Fundamentals of Environmental Epidemiology 3 cr

Controlled Biology Electives: (1) 8 cr
- BIOL 310, 466, 481, 482, 483, 484, 493, or other biology major courses by permission of advisor and department chair

Other Science Requirements: 19 cr
- CHEM 231 Organic Chemistry I 4 cr
- CHEM 351 Biochemistry 4 cr
- MATH 216 Probability and Statistics for Natural Sciences 3 cr
- PHYS 111 Physics I Lecture 3 cr
- PHYS 121 Physics I Lab 1 cr

Ancillary Science and Technical Electives: (2) 4 cr
- CHEM 332, 351
- GEOG/RGPL 415, 417, GEOG 419, 425
- GEOS 201, 202, 312, 313
- MATH 122
- PHYS 112, 122
- PSYC 290, 291, 315, 331, 341, 342 or 345, 350, 355, 356, 359, 372
- SAFE 330, 430

Other Requirements: 0-6 cr
- Foreign Language Intermediate Level (3) 0-6 cr

Total Degree Requirements: 120 cr
(1) No more than 6 cr total from Independent Study, Special Topics, or Internship applies to major; excess applied as free electives.
(2) Other appropriate major courses at 200 level and above (excluding Liberal Studies courses) in the above departments may be substituted with permission of the advisor and the Biology Department chair in advance of taking the course.
(3) (a) Two courses in one language, including the placement course; or (b) intermediate level. In lieu of a foreign language, students may elect to take a sequence of two courses in either computer science, exclusive of COSC 101 (COSC 110 and 210 recommended), or two courses in geography/regional planning (from the following: GEOG/RGPL 213, 314, 316, 415, 417).
(4) Recommended free electives: MGMT 310; PLSC 250, 370; SAFE 101, 220.

Bachelor of Science—Biology/Pre-medical Track

Liberal Studies: As outlined in Liberal Studies section with the following specifications:
- Mathematics: MATH 121
- Natural Science: CHEM 111-112 or CHEM 113-114
- Social Science: 3 cr, PSYC 101, SOC 151 or 161
- Liberal Studies Elective: 3 cr, no courses with BIOL prefix

Major: 37 cr

Required Core Courses:
- BIOL 201 Principles of Ecology and Evolution 4 cr
- BIOL 202 Principles of Cell and Molecular Biology 4 cr
- BIOL 203 Principles of Genetics and Development 4 cr

Required Biology Courses:
- BIOL 240 Human Physiology 4 cr
- BIOL 250 Principles of Microbiology 4 cr
- BIOL 331 Animal Developmental Biology 3 cr
- BIOL 402 Advanced Human Anatomy 4 cr

Controlled Biology Electives: (1) 10 cr
- BIOL 240, 210, 221, 242, 271, 310, 322, 352, 364, 401, 405, 410, 460, 466, 475, 477, 481, 482, 483, 484, 491, 493, 499, or other biology major courses by permission of advisor and department chair

Ancillary Science Requirements: 23 cr
- CHEM 231 Organic Chemistry I 4 cr
- CHEM 332 Organic Chemistry II 4 cr
- CHEM 351 Biochemistry 4 cr
- MATH 216 Probability and Statistics for Natural Sciences 3 cr
- PHYS 111 Physics I Lecture 3 cr
- PHYS 121 Physics I Lab 1 cr
- PHYS 122 Physics II Lecture 3 cr
- PHYS 123 Physics II Lab 1 cr

Other Requirements: 0-6 cr
- Foreign Language Intermediate Level 0-6 cr

Exit survey for assessment purposes
### Bachelor of Science—Biology/Pre-veterinary Track

**Liberal Studies:** As outlined in Liberal Studies section with the following specifications:

**Mathematics:** MATH 121

**Natural Science:** CHEM 111-112 or CHEM 113-114

**Liberal Studies Elective:** 3cr, no courses with BIOL prefix

**Major:**

**Required Core Courses:**
- BIOL 201 Principles of Ecology and Evolution 4cr
- BIOL 202 Principles of Cell and Molecular Biology 4cr
- BIOL 203 Principles of Genetics and Development 4cr

**Required Biology Courses:**
- BIOL 220 General Zoology 3cr
- BIOL 242 Comparative Vertebrate Anatomy 3cr
- BIOL 250 Principles of Microbiology 4cr
- BIOL 310 Applied Entomology and Zoonoses 3cr
- BIOL 352 Comparative Animal Physiology 3cr

**Controlled Biology Electives:**
- BIOL 200, 210, 221, 242, 271, 323, 331, 352, 364, 401, 405, 410, 460, 466, 475, 477, 481, 482, 483, 484, 491, 493, 499, or other biology major courses by permission of advisor and department chair

**Ancillary Science Requirements:**
- CHEM 231 Organic Chemistry I 4cr
- CHEM 332 Organic Chemistry II 4cr
- CHEM 351 Biochemistry 4cr
- MATH 216 Probability and Statistics for Natural Sciences 3cr
- PHYS 121 Physics I Lecture 3cr
- PHYS 121 Physics I Lab 1cr
- PHYS 122 Physics II Lecture 3cr
- PHYS 122 Physics II Lab 1cr

**Other Requirements:**
- Foreign Language Intermediate Level 0-6 cr
- Exit survey for assessment purposes

**Free Electives:**
- 9-15 cr

**Total Degree Requirements:**
- 120 cr

(1) No more than 6cr total from Independent Study, Special Topics, or Internship applies to major; excess applied as free electives.

(2) (a) Two courses in one language, including the placement course; or (b) intermediate level. In lieu of a foreign language, students may elect to take a sequence of two courses in either computer science, exclusive of COSC 101 (COSC 110 and 210 recommended), or two courses in geography/regional planning (from the following: GEOG/RGPL 213, 314, 316, 415, 417).

### Bachelor of Science in Education—Biology (*)

**Liberal Studies:** As outlined in Liberal Studies section with the following specifications:

**Mathematics:** MATH 110 (1)

**Natural Science:** CHEM 111-112 or CHEM 113-114

**Social Science:** PSYC 101

**Free Electives:**
- 9-15 cr

**Total Degree Requirements:**
- 120 cr

(1) No more than 6cr total from Independent Study, Special Topics, or Internship applies to major; excess applied as free electives.

(2) (a) Two courses in one language, including the placement course; or (b) intermediate level. In lieu of a foreign language, students may elect to take a sequence of two courses in either computer science, exclusive of COSC 101 (COSC 110 and 210 recommended), or two courses in geography/regional planning (from the following: GEOG/RGPL 213, 314, 316, 415, 417).

**Peractic Science Electives:**
- CHEM 111-112 or CHEM 113-114
- PHYS 121 Physics I Lecture 3cr, no courses with BIOL prefix

**Required Courses:**
- BIOL 201 Principles of Ecology and Evolution 4cr
- BIOL 202 Principles of Cell and Molecular Biology 4cr
- BIOL 203 Principles of Genetics and Development 4cr

**Controlled Biology Electives:**
- BIOL 200, 210, 221, 242, 271, 323, 331, 352, 364, 401, 405, 410, 460, 466, 475, 477, 481, 482, 483, 484, 491, 493, 499, or other biology major courses by permission of advisor and department chair

**Ancillary Science Requirements:**
- CHEM 231 Organic Chemistry I 4cr
- CHEM 332 Organic Chemistry II 4cr
- CHEM 351 Biochemistry 4cr
- MATH 216 Probability and Statistics for Natural Sciences 3cr

**Other Requirements:**
- Foreign Language Intermediate Level 0-6 cr
- Exit survey for assessment purposes

**Free Electives:**
- 1 cr

(1) MATH 121 may be substituted for MATH 110.

(2) No more than 3cr total from Independent Study, Special Topics, or Internship applies to major; excess applied as free electives.

(3) The two-semester (6cr) sequence of BIOC 301-402 can be substituted for CHEM 351 to meet the biochemistry requirement.

(4) See advisory paragraph "Timely Completion of Degree Requirements" in the section on Requirements for Graduation.

**Graduate-level Course:**
- BIOL 5XX/6XX Graduate-level course (3) 3cr
- BIOL 483 Honors Thesis/Independent Study (1, 2) 4cr
- BIOL 484 Honors Seminar (1) 2cr

**Required Biology Course:**
- BIOL 480 Biology Seminar 1cr

**Controlled Electives:**
- Biology electives: (major courses only) (2)
- One course from each area: Cell and Molecular Area, Ecology Area, Organismal Area (A list of courses in each area is available on the Biology Department website or at the Biology office.) A minimum of 6cr must be in courses at the 488 level. At least one course must be a field biology course.

**Other Science Requirements:**
- CHEM 231 Organic Chemistry I 4cr
- CHEM 351 Biochemistry (3) 4cr
- PHYS 151/161 Medical Physics Lecture and Lab 4cr

**Other Science Requirements:**
- Exit survey for assessment purposes

**Total Degree Requirements:**
- 120 cr

(*) See requirements leading to teacher certification, titled "3-Step Process for Teacher Education," in the College of Education and Communications section of this catalog.

(1) MATH 121 may be substituted for MATH 110.

(2) No more than 3cr total from Independent Study, Special Topics, or Internship applies to major; excess applied as free electives.

(3) The two-semester (6cr) sequence of BIOC 301-402 can be substituted for CHEM 351 to meet the biochemistry requirement.

(4) See advisory paragraph "Timely Completion of Degree Requirements" in the section on Requirements for Graduation.

**Biology Honors Track**

**Minor—Biology**

**Required Courses:**
- BIOL 484 Honors Seminar (1) 2cr
- BIOL 483 Honors Thesis/Independent Study (1, 2) 4cr
- BIOL 5XX/6XX Graduate-level course (3) 3cr

(1) May be counted toward the BA, BS, and BSEd in Biology programs.

(2) Two semesters, 2cr each.

(3) Students must take one course at the 500/600 level during their junior or senior year. This will be in addition to the biology credits (currently 38 for all tracks) required for the major.
BIOL 103  Life on Earth  4cr
BIOL 104  Human Biology: How the Human Body Works  4cr
BIOL 106  Human Genetics and Health  4cr

Additional BIOL courses (3, 4)  10

Other Requirements:
Student must have at least a 2.0 GPA in all BIOL courses for the minor.

(1)  Student must take two of the three required courses.
(2)  Two of the following courses may be substituted for the required courses: BIOL 201, 202, or 203.
(3)  With approval of department chair.
(4)  At least six of the 10 required additional BIOL cr must come from 300-level or higher courses.

Minor—Biomedical Science  18

Required Courses:  12
BIOL 150  Human Anatomy  4cr
BIOL 240  Human Physiology  4cr
BIOL 241  Introductory Medical Microbiology  4cr

Controlled Electives:  6
6 credits from the following:
BIOL 310, 323, 364, 405, 410, 460, 466, or 477

(1) Other BIOL content courses with the approval of the minor advisor.

Minor—Forensic Biosciences (1)  19-20

Foundation Courses: (all majors)  12
BIOL 107  Introduction to Forensic Biology  3cr
BIOL 211  Investigative Biological Forensics  3cr
BIOL 313  Forensic Analysis of DNA  3cr
CHEM 105  The Forensic Chemistry of CSI  3cr

Required Course:  4
BIOL 411  Forensic Biology Laboratory Operations  4cr

Controlled Elective:  3-4
One course from the following: ANTH 488, 491, BIOL 103, 104, 105, 106, 115, 323, 364, 493, PSYC 388

(1) Must have formal Biology Department approval to be admitted to the minor in Forensic Biosciences.

Certificate—Cell and Molecular Biology  15

Core Courses:  12
BIOL 401  Laboratory Methods in Biology/Biotechnology  3cr
BIOL 405  Biology of the Cell  3cr
BIOL 410  Molecular Biology Topics  3cr
BIOL 466  Principles of Virology  3cr

Elective Course:  3
One course from the following: BIOL 323, 364, 460, 481

Department of Chemistry
Websites: www.iup.edu/chemistry and www.iup.edu/biochemistry
Anne Kondo, Chair
Degree programs offered by the Department of Chemistry are the Bachelor of Science (BS) with a major in Chemistry or Biochemistry and the Bachelor of Science in Education (BSEd) with a major in Chemistry. Additionally, Pre-medical, Pre-pharmacy, and Interdisciplinary Tracks are available in the Chemistry BS program. Students majoring in Clinical Laboratory Science and preparatory programs for other professional schools can also be developed, using the Interdisciplinary Track, and a minor in Chemistry and Biochemistry are offered.

Biochemistry
Website: www.iup.edu/biochemistry

N. Bharathan, S. Bharathan, Diep, Ford, Hinrichsen, Irani, Jain, Ko, Kyler, Luciano, Majumdar, Ruby, Soutard, Villemain, Widzowski; and professors emeriti Butler, Harding, Sowa

The four-year BS in biochemistry and the minor are offered by the chemistry department.

The curriculum leading to a BS degree with a major in biochemistry begins with foundation courses in biology, chemistry, mathematics, and physics in the first two years. Specialization in biochemistry commences in the third year with courses in biochemistry, genetics, physical chemistry, special topics in biochemistry, and biochemistry seminar. Completion of one chemistry course as a controlled elective allows students the option to receive a biochemistry degree certified by the American Chemical Society.

A unique feature of this undergraduate program is that biochemistry research is a requirement. After consultation with faculty, the students will define a problem and devise an experimental plan through library research. Laboratory research will be done under the direct supervision of a faculty member. Finally, the student will report on the results of the research in both written and oral forms.

This program is intended for students whose interests lie in a most exciting field of modern science. Graduates can expect to be qualified to enter graduate programs in biochemistry, biology, chemistry, and molecular biology; professional schools in the health sciences; and positions in industrial and government research laboratories and in industrial production facilities.

Bachelor of Science—Biochemistry

Liberal Studies: As outlined in the Liberal Studies section with the following specifications:
Mathematics: MATH 125
Natural Science: PHYS 131-141 and 132-142
Liberal Studies Elective: 3cr, MATH 126, no courses with BIOC prefix

Major:  52

Required Courses:
BIOC 301  Foundations of Biochemistry  3cr
BIOC 402  Advanced Biochemistry  3cr
BIOC 311  Biochemistry Laboratory I  1cr
BIOC 412  Advanced Biochemistry Laboratory  1cr
BIOC 401  Laboratory Methods in Biology and Biotechnology  3cr
BIOC 480  Biochemistry Seminar I (1)  1cr
BIOC 481  Special Topics in Biochemistry  3cr
BIOC 482  Independent Research in Biochemistry  2cr
BIOC 490  Biochemistry Seminar II (1)  1cr
BIOC 202  Principles of Cell and Molecular Biology  4cr
BIOC 203  Principles of Genetics and Development  4cr
BIOC 250  Principles of Microbiology  4cr
CHEM 111  General Chemistry I or 113  3cr
or 111  Advanced General Chemistry I  4cr
CHEM 112  General Chemistry II or 114  4cr
or 112  Advanced General Chemistry II  4cr
CHEM 231  Organic Chemistry I  4cr
CHEM 332  Organic Chemistry II  4cr
CHEM 325  Analytical Methods  4cr
CHEM 341  Physical Chemistry I  4cr

Controlled Electives:  6-8
Two courses chosen from any 300- or 400-level
BIOC/BIOC/CHM courses or CHEM 314 (2), MATH 216 or 225 or COSC 110

Free Electives:  16-18

Total Degree Requirements:  120

(1) 1cr each semester of senior year.
(2) CHEM 314 must be taken to qualify for an ACS certified degree.
Chemistry
Website: www.iup.edu/chemistry

Chemistry is a field that has historically enjoyed very strong career possibilities. Many students are employed directly after their undergraduate education by the chemical, pharmaceutical or related industries, in jobs that have excellent career prospects. Graduate school in chemistry or biochemistry usually includes very generous financial support, and can lead to outstanding career paths in industry, government or academic areas. These opportunities are available to students completing any of the degree programs offered by the Department of Chemistry, and graduates of these programs have gone on to industrial leadership positions, and some of the most prestigious graduate programs in the country.

The BS degree with a major in Chemistry is designed for a student intending a career in chemistry and is certified by the American Chemical Society. The advanced courses and strong laboratory component in this degree program gives the student excellent hands-on preparation for the challenges of employment or graduate school.

The Pre-medical and Pre-pharmacy Tracks of the BS degree allow students to take all courses required for entrance into their intended professional health program, and gives them the flexibility to tailor their program to meet their individual needs. Students in these tracks retain the option of: (a) attending medical or pharmacy school, (b) attending graduate school in chemistry, biochemistry, pharmacy, or a variety of medically-related PhD programs, (c) employment in the chemistry or pharmaceutical industry. Additionally, the flexibility of these tracks allows students to change the focus of their degree program during their undergraduate experience.

The curriculum leading to the BS—Interdisciplinary Chemistry Track is designed to allow for the workable union of other disciplines with chemistry in such a way as to retain the fundamental science and mathematics requirements needed for a career in chemistry. The Interdisciplinary Chemistry Track can also provide excellent preparation for entrance into a variety of professional schools, including law school—students considering this path should work closely with their advisor to choose courses appropriate to meet professional school requirements. This degree may be of interest to students who have completed a significant number of credits in another degree program and decide they want to earn a degree with a major in chemistry. The Interdisciplinary Chemistry Track can incorporate a minor from almost any other field in the university; some disciplines that make useful combinations include art, biology, business administration, clinical laboratory science, computer science, criminology (forensic science), English (technical writing), geoscience, government, and physics. In particular, a student seeking a career in forensic science should major in chemistry.

Bachelor of Science—Chemistry

Liberal Studies: As outlined in Liberal Studies section with the following specifications:
Mathematics: MATH 125
Natural Science: PHYS 111-121 and 112-122 or 131-141 and 132-142
Liberal Studies Elective: 3cr, MATH 126

Major: 50

Required Courses:
CHEM 111 General Chemistry I or CHEM 112 General Chemistry II or CHEM 114 General Chemistry II 4cr
CHEM 113 Advanced General Chemistry I 4cr
CHEM 231 Organic Chemistry I 4cr
CHEM 232 Organic Chemistry II 4cr
CHEM 290 Chemistry Seminar I 1cr
CHEM 325 Analytical Chemistry I 4cr
CHEM 341 Physical Chemistry I 4cr
CHEM 442 Advanced Physical Chemistry 3cr
CHEM 343 Physical Chemistry Laboratory I 1cr
CHEM 444 Advanced Physical Chemistry Laboratory 1cr
CHEM 390 Chemistry Seminar II 1cr
CHEM 411 Advanced Inorganic Chemistry 3cr
CHEM 490 Chemistry Seminar III 1cr
CHEM 498 Problems in Chemistry 2cr
BIOL 301 Foundations of Biochemistry 3cr

Controlled Electives:
At least 3cr from CHEM or BIOL at or above the 300 level 3cr

Other Requirements:
10

Free Electives: 16

Total Degree Requirements: 120

Bachelor of Science—Chemistry/Interdisciplinary Chemistry Track

Liberal Studies: As outlined in Liberal Studies section with the following specifications:
Mathematics: MATH 125 (1)
Natural Science: PHYS 111-121 and 112-122 or 131-141 and 132-142
Liberal Studies Elective: 3cr, MATH 126 (1), no course with CHEM prefix

Major: 35-37

Required Courses:
CHEM 111 General Chemistry I or CHEM 113 Advanced General Chemistry I 4cr
CHEM 112 General Chemistry II or CHEM 114 Advanced General Chemistry II 4cr
CHEM 314 Intermediate Inorganic Chemistry 3cr
CHEM 231 Organic Chemistry I 4cr
CHEM 332 Organic Chemistry II 4cr
CHEM 290 Chemistry Seminar I 1cr
CHEM 325 Analytical Chemistry I 4cr
CHEM 341 Physical Chemistry I 4cr

Controlled Electives:
CHEM 343 or 390 and 490 (2) 1-2cr
BIOL 301 or CHEM 351 3-4cr
At least 3cr from CHEM or BIOL at or above the 300 level or above (3) 3cr

Other Requirements: 25

Free Electives: 14-16

Total Degree Requirements: 120

(1) For students transferring into the program, MATH 121 and 122 may be substituted for MATH 125 and 126, respectively.
(2) Program contains one writing-intensive credit; students need to acquire another W-credit in Liberal Studies, or as a free or controlled elective.
(3) CHEM 343, 390, and 490 can all be taken, but student still requires at least 1cr additional of CHEM or BIOL courses at the 300 level or above. BIOL 301 and CHEM 351 cannot both be taken.
(4) A pre-law concentration has been established—information on this and suggested minor programs is available on the chemistry department website. Alternate (non-minor) programs containing at least 18cr are also possible—they must be approved by the advisor and department chair.

Bachelor of Science—Chemistry/Pre-medical Track

Liberal Studies: As outlined in Liberal Studies section with the following specifications:

Other Requirements:

Free Electives: 16

Total Degree Requirements: 120

(1) For students transferring into the program, MATH 121 and 122 may be substituted for MATH 125 and 126, respectively.
(2) Program contains one writing-intensive credit; students need to acquire another W-credit in Liberal Studies, or as a free or controlled elective.
(3) CHEM 343, 390, and 490 can all be taken, but student still requires at least 1cr additional of CHEM or BIOL courses at the 300 level or above. BIOL 301 and CHEM 351 cannot both be taken.
(4) A pre-law concentration has been established—information on this and suggested minor programs is available on the chemistry department website. Alternate (non-minor) programs containing at least 18cr are also possible—they must be approved by the advisor and department chair.
Bachelor of Science—Chemistry/Pre-pharmacy Track

Major: 49

Required Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 111 General Chemistry I or or 113 Advanced General Chemistry I</td>
<td>4cr</td>
</tr>
<tr>
<td>CHEM 112 General Chemistry II or or 114 Advanced General Chemistry II</td>
<td>4cr</td>
</tr>
<tr>
<td>CHEM 314 Intermediate Inorganic Chemistry</td>
<td>3cr</td>
</tr>
<tr>
<td>CHEM 231 Organic Chemistry I</td>
<td>4cr</td>
</tr>
<tr>
<td>CHEM 332 Organic Chemistry II</td>
<td>4cr</td>
</tr>
<tr>
<td>CHEM 325 Analytical Chemistry I</td>
<td>4cr</td>
</tr>
<tr>
<td>CHEM 341 Physical Chemistry I</td>
<td>4cr</td>
</tr>
<tr>
<td>CHEM 390 Chemistry Seminar II</td>
<td>1cr</td>
</tr>
<tr>
<td>CHEM 490 Chemistry Seminar III</td>
<td>1cr</td>
</tr>
<tr>
<td>CHEM 498 Problems in Chemistry</td>
<td>2cr</td>
</tr>
</tbody>
</table>

Controlled Electives:

At least 11 additional credits from the following: (2, 3, 4) 11 cr

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOC 301 Foundations of Biochemistry</td>
<td>3cr</td>
</tr>
<tr>
<td>BIOC 402 Advanced Biochemistry</td>
<td>3cr</td>
</tr>
<tr>
<td>BIOC 311, 412, 481, BIOL 150, 240, 241, 250, 331, CHEM 326, 431, 442, 343, 444, 411, 481, MATH 225</td>
<td>11cr</td>
</tr>
</tbody>
</table>

Other Requirements:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 202 Principles of Cell and Molecular Biology</td>
<td>4cr</td>
</tr>
<tr>
<td>BIOL 203 Principles of Genetics and Development</td>
<td>4cr</td>
</tr>
<tr>
<td>MATH 216 Probability and Statistics</td>
<td>3cr</td>
</tr>
</tbody>
</table>

Free Electives: 16

Total Degree Requirements: 120

(1) For students transferring into the program, MATH 121 and 122 may be substituted for MATH 125 and 126, respectively.
(2) The application requirements of specific schools of pharmacy may result in the need to take additional courses. Students should be aware of the requirements at each program in which they are interested, and plan to take courses accordingly to meet these requirements.
(3) Students enrolled at an accredited school of pharmacy after three years at IUP may count the following toward the requirements for the Bachelor of Science—Chemistry/Pre-pharmacy Track: 3 cr of Liberal Studies social science; 11 cr of required CHEM courses (see below); 13 cr of free electives (total 27 cr). Upon completing the first year of pharmacy school, students electing this option are not required to take CHEM 314, 325, and 341. If these CHEM courses are taken, they may be counted toward the controlled elective requirement.
(4) To qualify for an ACS-certified degree in chemistry, students must take BIOC 311 and CHEM 498. Additionally, they must take three lecture courses and one lab course from the following list: BIOC 402, 412, 481, CHEM 326, 431, 442, 343, 411, or 481. CHEM 326 and 411 count as both a lecture and a lab course.

Bachelor of Science in Education—Chemistry (*)

Liberal Studies: As outlined in Liberal Studies section with the following specifications:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 125 Mathematics</td>
<td></td>
</tr>
<tr>
<td>BIOL 111-121 and 112-122 or 131-141 and 132-142 Natural Science</td>
<td></td>
</tr>
<tr>
<td>PHIL 122 or 130 Philosophy or Religious Studies</td>
<td></td>
</tr>
<tr>
<td>PSYC 101 Social Science</td>
<td></td>
</tr>
<tr>
<td>CHEM 111 General Chemistry I or or 113 Advanced General Chemistry I</td>
<td>4cr</td>
</tr>
</tbody>
</table>

Preprofessional Education Sequence:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACE 103 Digital Instructional Technology</td>
<td>3cr</td>
</tr>
<tr>
<td>EDSP 102 Educational Psychology</td>
<td>3cr</td>
</tr>
</tbody>
</table>

Professional Education Sequence:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDEX 301 Education of Students with Disabilities in Inclusive Secondary Settings</td>
<td></td>
</tr>
<tr>
<td>EDEX 323 Instruction of English Language Learners with Special Needs</td>
<td>2cr</td>
</tr>
<tr>
<td>EDSP 477 Assessment of Student Learning: Design and Interpretation of Educational Measures</td>
<td>3cr</td>
</tr>
<tr>
<td>EDUC 242 Pre-student Teaching Clinical Experience I</td>
<td>1cr</td>
</tr>
<tr>
<td>EDUC 342 Pre-student Teaching Clinical Experience II</td>
<td>1cr</td>
</tr>
<tr>
<td>EDUC 441 Student Teaching</td>
<td>12cr</td>
</tr>
<tr>
<td>EDUC 442 School Law</td>
<td>1cr</td>
</tr>
<tr>
<td>EDUC 451 Teaching Science in the Secondary School</td>
<td>3cr</td>
</tr>
</tbody>
</table>

College: 31
Major:  36-37

Required Courses:

CHEM 111 General Chemistry I or 4cr
or 113 Advanced General Chemistry I
CHEM 112 General Chemistry II or 4cr
or 114 Advanced General Chemistry II
CHEM 314 Intermediate Inorganic Chemistry 3cr
CHEM 231 Organic Chemistry I 4cr
CHEM 332 Organic Chemistry II 4cr
CHEM 325 Analytical Chemistry I 4cr
CHEM 341 Physical Chemistry I 4cr
CHEM 343 Physical Chemistry Laboratory I 1cr
CHEM 390 Chemistry Seminar II (1) 1cr
CHEM 498 Problems in Chemistry (1, 2) 1cr

Controlled Electives: (2)

BIOC 301 or CHEM 351 3-4cr
At least 3cr additional CHEM or BIOC at or above the 300 level 3cr

Other Requirements:

BIOL 202 Principles of Cell and Molecular Biology 4cr
GEOS 201 Foundations of Geology 4cr

Free Electives: (1) 0-1

Total Degree Requirements: 120

(*) See requirement leading to teacher certification, titled “3-Step Process for Teacher Education,” in the College of Education and Communications section of this catalog.

(1) Program contains one writing-intensive course (CHEM 343); students need to acquire another W-course in Liberal Studies or as an elective.

(2) Students in the Chemistry Education program who wish to earn an ACS-certified degree in chemistry must take 2cr of CHEM 498, including a written report, and complete at least 7cr, including two lab courses, of CHEM or BIOC at or above the 300 level.

Minor—Biochemistry  18-20

Total credits will depend on the controlled electives used (9cr minimum required to 12cr for three 4cr electives).

Required Courses:

BIOC 301 Foundations of Biochemistry (1a) 3cr
BIOC 402 Advanced Biochemistry 3cr
BIOC 311 Biochemistry Laboratory I (1a) 1cr
BIOC 412 Advanced Biochemistry Laboratory 1cr

Other Requirements:

At least three controlled electives from following: (1)
BIOC 480, 481, 490, BIOL 203 (1b), 250 (1b, d), 352 (1d), 364 (1d), BIOL/BIOC 401 (1d), CHEM 332 (1c), 332, (1c, d), 325 10-12

(1) Or other 200-level or higher biology or chemistry courses with permission of chair of offering department. A minimum of 10cr is required.
   a. BIOC 202 and CHEM 332 are prerequisites.
   b. Required for biology major
   c. Required for chemistry major
   d. These courses have prerequisites not needed for the required courses.

Minor—Chemistry 19

Required Courses:

CHEM 111 General Chemistry I or 4cr
or 113 Advanced General Chemistry I
CHEM 112 General Chemistry II or 4cr
or 114 Advanced General Chemistry II
CHEM 231 Organic Chemistry I 4cr
At least 7cr from the following: CHEM 314, 332, or any CHEM or BIOC course(s) at the 300 level or above 7cr

Department of Geoscience

Website: www.iup.edu/geoscience

Steven A. Hovan, Chair

Geology is the broad science that encompasses all aspects of the Earth system. In addition to the solid Earth, this system includes the oceans and atmosphere, climate change, and most aspects of our immediate environment. Professional geologists are thus engaged in a wide range of activities, depending on their interests. Scientific questions addressed by geologists include the evolution of life, the origin of volcanic activity, the assessment of volcanic and earthquake hazards, the evolution of our planetary neighbors, climate change, mineral and energy resources, and the human impact on the environment.

The Geoscience Department offers a BS degree that is divided into three tracks: Geology, Environmental, and Energy Resources. All tracks give students the necessary foundation to pursue a wide variety of career goals. In addition, the department offers a BSEd degree with a major in Earth and space science education for students who are interested in teaching.

BS—Geology/Geology Track

This track is designed for students who are interested in pursuing many of the various subdisciplines in geology, including oceanography/marine geology, climate change, volcanology, paleontology, and geophysics. There is also considerable overlap between geology and astronomy, as geologists study the evolution of other planetary bodies, such as the Moon, Mars and Venus; the curriculum reflects this link and provides the groundwork for planetary studies. The Geology Track thus provides students with the foundation needed to pursue a wide variety of careers, including research and graduate studies, or working as professional geologists for energy resource companies, environmental consulting firms, or federal and state regulatory agencies.

BS—Geology/Environmental Track

This track is designed for students who wish to pursue careers in the environmental field. In addition to air and water quality issues, pollution often affects the subsurface in ways that are difficult to detect and remediate. Geologists therefore play a key role in dealing with complex environmental issues; the Environmental Track prepares students to solve a variety of environmental problems. Graduates from this track will be prepared for direct entry into jobs with federal or state agencies and private environmental consulting firms, as well as graduate studies.

BS—Geology/Energy Resources Track

This track is designed for students who wish to pursue careers in the energy sector. As the world’s energy demands continue to grow, nations face the challenge of maintaining reliable energy supplies. Conventional oil, coal, and natural gas continue as mainstays of the energy industry, but renewable and/or carbon-neutral energy sources are gaining attention in response to growing concerns about climate change and finite reserves of fossil fuels.

The degrees and courses in the program emphasize hands-on learning, including outdoor instruction, student-oriented research, and professional experiential learning opportunities. In addition to on-campus instruction and class-related field trips, the department also offers several regional geology field workshops, which take place in Newfoundland, the northern Rockies region, Florida and the Bahamas, and the American Southwest.

BSEd—Earth and Space Science

This program prepares students to become certified middle- and high-school teachers in Pennsylvania and other states. Earth and space science teachers in grades 7 to 12 teach subjects that require a broad and solid foundation in science. Course work includes study of geology, meteorology, oceanography, and astronomy. A basic understanding of the cognitive sciences, biology, chemistry, and physics, and mathematics is also an essential part of the major. Courses in the foundations of education and pedagogy complement
the subject matter studies. Students create and present lessons, first in their courses and then in school classrooms, culminating in the student teaching experience in the final semester.

Minor in Geology

The minor in geology is designed for students who want a background in geology in conjunction with their main area of study. This minor may be particularly appropriate for students pursuing degrees in business or one of the social or physical sciences.

Bachelor of Science—Geology/Geology Track

Liberal Studies: As outlined in Liberal Studies section with the following specifications:

Mathematics: MATH 121

Natural Science: CHEM 111-112 or 113-114

Liberal Studies Elective: 4cr, MATH 122, no courses with GEOS prefix

Major: 58

Geoscience Core:
- GEOS 201 Foundations of Geology 4cr
- GEOS 202 Quantitative Methods in the Geosciences 2cr
- GEOS 203 Surficial Processes 4cr
- GEOS 204 Historical Geology 4cr
- GEOS 301 Mineralogy 4cr
- GEOS 306 Research Methods in the Geosciences 2cr
- GEOS 480 Geoscience Seminar 2cr

One course from the following: GEOS 303, 401-402, 403-404, 405-406, 407-408 (1)

Geology Track:
- Select two courses from the following: GEOS 302, 345, 362 8cr
- Select two courses from the following: GEOS 352, 353, 354, 355 8cr

Ancillary Sciences:
- Select two courses from the following: PHYS 111 or 131, PHYS 112 or 132, MATH 216 6cr
- Controlled Electives: Select 10cr from the following: (2) 10cr
  - One 100-level GEOS course (3)
  - Any 300-level GEOS course
  - Any 400-level GEOS course

Foreign Language Intermediate Level

BIOL 201, 202
CHEM 231, 332, 325, 326, 341
GEOG 314, 335, 341, 343, 415, 419
MATH 216 or 217 (4), 341
PHYS 121 or 141, 122 or 142, 342
COSC 110, 210, 250, 310, 362

Free Electives: 16

Total Degree Requirements: 120

(1) Up to 4cr of a summer field camp, internship, field study, or independent study, if approved by the department, may substitute for GEOS 303 or a Geoscience Field Workshop.

(2) Any course not applied to the Geology Track may count as a controlled elective if taken in addition to track requirements. Only one Geoscience Field Workshop (including prerequisite 1cr Seminar) may be applied toward controlled electives. Six credits of foreign language may count toward controlled elective provided intermediate level is successfully obtained.

(3) When taken before declaring the major or when specifically recommended during freshman orientation/transfer advising for student who must take remedial math courses before enrolling in GEOS 201 and 202.

(4) Cannot be counted as a controlled elective if MATH 216 is applied toward ancillary science requirements.

Bachelor of Science—Geology/Environmental Track

Liberal Studies: As outlined in Liberal Studies section with the following specifications:

Mathematics: MATH 121

Natural Science: CHEM 111-112 or CHEM 113-114

Liberal Studies Elective: 4cr, MATH 122, no courses with GEOS prefix

Major: 58

Required Courses:
- GEOS 201 Foundations of Geology 4cr
- GEOS 202 Quantitative Methods in the Geosciences 2cr
- GEOS 203 Surficial Processes 4cr
- GEOS 204 Historical Geology 4cr
- GEOS 301 Mineralogy 4cr
- GEOS 470 Research Methods in the Geosciences 2cr
- GEOS 480 Geoscience Seminar 2cr

One course from the following: GEOS 303, 401-402, 403-404, 405-406, 407-408 (1)

Environmental Track:
- Two courses from the following: GEOS 345, 352, 356 8cr
- Two courses from the following: GEOS 310, 311, 312, 323 8cr

Ancillary Sciences:
- Select two courses from the following: PHYS 111 or 131, PHYS 112 or 132, MATH 216 6cr

Total Degree Requirements: 120

(1) Up to 4cr of a summer field camp, internship, field study, or independent study, if approved by the department, may substitute for GEOS 303 or a Geoscience Field Workshop.

(2) Any course not applied to the Environmental Track may count as a controlled elective if taken in addition to track requirements. Only one Geoscience Field Workshop (including prerequisite 1cr Seminar) may be applied toward controlled electives. Six credits of foreign language may count toward controlled elective provided intermediate level is successfully obtained.

(3) When taken before declaring the major or when specifically recommended during freshman orientation/transfer advising for student who must take remedial math courses before enrolling in GEOS 201 and 202.

(4) Cannot be counted as a controlled elective if MATH 216 is applied toward ancillary science requirements.

Bachelor of Science—Geology/Energy Resources Track

Liberal Studies: As outlined in Liberal Studies section with the following specifications:

Mathematics: MATH 121

Natural Science: CHEM 111-112 or CHEM 113-114

Liberal Studies Elective: 4cr, MATH 122, no courses with GEOS prefix

Major: 58

Required Courses:
- GEOS 201 Foundations of Geology 4cr
- GEOS 202 Quantitative Methods in the Geosciences 2cr
- GEOS 203 Surficial Processes 4cr
- GEOS 204 Historical Geology 4cr
- GEOS 301 Mineralogy 4cr
- GEOS 470 Research Methods in the Geosciences 2cr
- GEOS 480 Geoscience Seminar 2cr

One course from the following: GEOS 303, 401-402, 403-404, 405-406, 407-408 (1)

Energy Resources Track:
Two courses from the following: GEOS 302, 323, 324 8cr
Two courses from the following: GEOS 352, 353, 355, 362 8cr

**Ancillary Sciences:**
Two courses from the following: PHYS 111 or 131, PHYS 112 or 132, MATH 216 6cr

**Controlled Electives:** Select 10cr from the following: (2) 10cr
One 100-level GEOS course (3)
Any 300-level GEOS course
Any 400-level GEOS course
Foreign Language Intermediate Level
Biol 201, 202
CHEM 231, 332, 325, 326, 341
GEOG 314, 335, 341, 343, 415, 419
MATH 216 or 217 (4), 341
PHYS 121 or 141, 122 or 142, 342
COSC 110, 210, 250, 310, 362

**Free Electives:** 16

**Total Degree Requirements:** 120

(1) Up to 4cr of a summer field camp, internship, field research study, or independent study, all of which must be approved by the department, may substitute for GEOS 303 or a Geoscience Field Workshop.

(2) Any course not applied to the Energy Resources Track may count as a controlled elective provided intermediate level is successfully obtained.

(3) When taken before declaring the major or when specifically recommended during freshman orientation/transfer advising for student who must take remedial math courses before enrolling in GEOS 201 and 202

(4) Cannot be counted as a controlled elective if MATH 216 is applied toward ancillary science requirements.

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**Minor—Geology** 18

**Required Courses:**
- GEOS 201 Foundations of Geology 4cr
- GEOS 202 Quantitative Methods in the Geosciences 2cr
- GEOS 203 Surficial Processes 12cr from the following: 12cr
- GEOS 303 or a Geoscience Field Workshop (including prerequisite 1cr Seminar) may count toward controlled electives. Six credits of foreign language may count toward controlled elective provided intermediate level is successfully obtained.

**Total Degree Requirements:** 9cr

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**Bachelor of Science in Education—Earth and Space Science ( )**

**Liberal Studies:** As outlined in Liberal Studies section with the following specifications:
- Mathematics: MATH 121
- Natural Science: CHEM 111-112
- Social Science: PSYC 101

**Liberal Studies Electives:** 6cr, MATH 217, PHYS 111, no courses with GEOS prefix

**College:**

**Preprofessional Education Sequence:**
- ACE 103 Digital Instructional Technology 3cr
- EDSP 102 Educational Psychology 3cr

**Professional Education Sequence:**
- EDEX 301 Education of Students with Disabilities in Inclusive Secondary Settings 2cr
- EDEX 323 Instruction of English Language Learners with Special Needs 2cr
- EDSP 477 Assessment of Student Learning: Design and Interpretation of Educational Measures 3cr

**University of Pennsylvania Undergraduate Catalog, 2019-20**
to double major. Majors in other disciplines at IUP are also welcome to take computer science courses for which they are qualified or to complete a Computer Science minor or Cyber Security minor.

The programs of study are detailed below.

**Bachelor of Arts—Computer Science**

A graduate of this track will be prepared to:

1. apply knowledge of computing to an area not usually associated with computer science,
2. be particularly effective in communicating with others of different cultural and educational background regarding computing issues,
3. be employed in entry-level positions in business.

**Bachelor of Science—Computer Science/Software Engineering Track**

A graduate of this track will be prepared to:

1. Analyze a complex computing problem and apply principles of computing and other relevant disciplines to identify solutions.
2. Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of software engineering.
3. Communicate effectively in a variety of professional contexts.
4. Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
5. Function effectively as a member or leader of a team engaged in activities appropriate to software engineering.
6. Apply computer science fundamentals and software engineering principles to produce computing-based solutions.

**Bachelor of Science—Computer Science/Languages and Systems Track**

A graduate of this track will be prepared to:

1. Analyze a complex computing problem and apply principles of computing and other relevant disciplines to identify solutions.
2. Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of languages, systems, and/or tools used in the field of computer science.
3. Communicate effectively in a variety of professional contexts.
4. Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
5. Function effectively as a member or leader of a team engaged in activities appropriate to languages, systems, and/or tools used in the field of computer science.
6. Apply computer science theory, mathematical concepts, and software development fundamentals to produce computing-based solutions.

**Bachelor of Science—Computer Science/Cyber Security Track**

A graduate of this track will be prepared to:

1. Analyze a complex computing problem and apply principles of computing and other relevant disciplines to identify solutions.
2. Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of cybersecurity.
3. Communicate effectively in a variety of professional contexts.
4. Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
5. Function effectively as a member or leader of a team engaged in activities appropriate to cybersecurity.
6. Apply security principles and practices to the computing environment, hardware, software, and human aspects of a system.
7. Analyze and evaluate systems with respect to maintaining operations in the presence of risks and threats.

**Bachelor of Arts—Computer Science**

**Liberal Studies:** As outlined in Liberal Studies section with the following specifications:

- **Mathematics:** 3cr, MATH 125 (1)
- **Liberal Studies Elective:** 3cr, MATH 216, no courses with COSC prefix

**Major:**

**Core Courses:**

- COSC 105 Fundamentals of Computer Science 3cr
- COSC 110 Problem Solving and Structured Programming 3cr
- COSC 210 Object-Oriented and GUI Programming 3cr
- COSC 220 Applied Computer Programming 4cr
- COSC 300 Computer Organization and Assembly Language 3cr
- COSC 310 Data Structures and Algorithms 3cr
- COSC 341 Introduction to Database Management Systems 3cr
- COSC 380 Seminar on the Computing Profession and Ethics 2cr
- COSC 480 Seminar on Technical Topics 1cr

**Controlled Electives:** 8cr from the following:

- COSC/MATH 343, COSC 216 (3), 319, 345, 355, 356, 362, 365, 473 (4), 481 (only sections approved for majors), 482, 493 (4), COSC/IFMG 354, IFMG 455

**Upper-Level Electives by Categories:**

- Artificial Intelligence: COSC 405
- Computer Architecture: COSC 410
- Database Management: COSC 444
- Distributed Systems: COSC 465
- Numerical Methods: COSC 427
- Systems Programming: COSC 430, 432
- Theory of Languages: COSC 420, 424, 460

**Other Requirements:**

- **Additional Mathematics:**
  - MATH 309 Discrete Mathematics 3cr

**Free Electives:**

34-35

**Total Degree Requirements:**

120

(1) MATH 125 can be substituted by MATH 121.
(2) Upper-level electives may be counted as controlled electives. 3cr of Intermediate Level foreign language may be applied toward controlled electives.
(3) COSC 216 cannot be counted for major credit if a student does a Cyber Security minor.
(4) Credit for both COSC 473 and 493 may be counted toward the degree, but only one will be counted toward the major requirements. **Note:** Only 3cr of first 6cr of COSC 493 or 6cr of a total 12cr of COSC 493 can be counted toward major. COSC 493 may be selected after completion of sophomore year.
(5) Select at least two additional courses, from at least two different categories, from the list of upper-level electives.

**Bachelor of Science—Computer Science/Software Engineering Track**

**Liberal Studies:** As outlined in Liberal Studies section with the following specifications:

- **Mathematics:** 3cr, MATH 125 (1)
- **Liberal Studies Elective:** 3cr, MATH 216, no courses with COSC prefix

**Major:**

**Required Courses:**

- COSC 105 Fundamentals of Computer Science 3cr
- COSC 110 Problem Solving and Structured Programming 3cr
- COSC 210 Object-Oriented and GUI Programming 3cr
- COSC 220 Applied Computer Programming 4cr
- COSC 300 Computer Organization and Assembly Language 3cr
- COSC 310 Data Structures and Algorithms 3cr
- COSC 319 Software Engineering Concepts 3cr
- COSC 341 Introduction to Database Management Systems 3cr
- COSC 365 Web Application Development 3cr
- COSC 380 Seminar on the Computing Profession and Ethics 2cr
- COSC 480 Seminar on Technical Topics 1cr
- COSC 473 Software Engineering Practice or 493 Internship in Computer Science (2)

**Controlled Electives:** 9cr from the following:

- COSC/MATH 343 Introduction to Numerical Methods 3cr
- COSC 216 Introduction to Cyber Security (4) or
Bachelor of Science—Computer Science/Languages and Systems Track

Liberal Studies: As outlined in Liberal Studies section with the following specifications:
Mathematics: 3cr, MATH 125 (1)
Natural Science: Must choose Option I
Liberal Studies Elective: 3cr, MATH 216 (6), no course with COSC prefix

Major: 48-49

Core Courses:
COSC 105  Fundamentals of Computer Science 3cr
COSC 110  Problem Solving and Structured Programming 3cr
COSC 210  Object-Oriented and GUI Programming 3cr
COSC 300  Computer Organization and Assembly Language 3cr
COSC 310  Data Structures and Algorithms 3cr
COSC 319  Software Engineering Concepts 3cr
COSC 341  Introduction to Database Management Systems 3cr
COSC 380  Seminar on the Computing Profession and Ethics 2cr
COSC 480  Seminar on Technical Topics 1cr

Languages and Systems Required Courses:
COSC 460  Theory of Computation 3cr
COSC 420  Modern Programming Languages or
or COSC 424  Compiler Construction 3cr
COSC 473  Software Engineering Practice or
or COSC 493  Internship in Computer Science (2) 3cr

Controlled Electives: (3,4)
COSC 220  Applied Computer Programming 4cr
COSC/MATH 343  Introduction to Numerical Methods (5) 3cr
COSC 345  Computer Networks 3cr
COSC 355  Computer Graphics 3cr
COSC 362  Unix Systems 3cr
COSC 365  Web Application Development 3cr

Upper-level Electives: 6cr from the following: (4)
COSC 405  Artificial Intelligence 3cr
COSC 410  Computer Architecture 3cr
COSC 430  Systems Programming 3cr
COSC 432  Introduction to Operating Systems 3cr
COSC 465  Distributed Processing and Web Services 3cr

Free Electives: 7-19

Total Degree Requirements: 120

(1) MATH 125 can be substituted by MATH 121.
(2) COSC 493 may be selected after completion of sophomore year. Note: If a 6cr COSC 493 is taken, 3cr are applied toward COSC required courses. If a 12cr COSC 493 is taken, 3cr are applied toward required courses and 3cr toward COSC upper-level electives.
(3) Upper-level electives may be counted as controlled electives. 3cr of Intermediate Level foreign language may be applied toward controlled electives.
(4) Controlled and upper level electives may not be applied toward more than one track in computer science.
(5) COSC/MATH 343 may be counted as a computer science elective or as part of the mathematics minor, but not both.
(6) MATH 125 and 216 (taken as liberal studies requirements) are also counted towards the minor. Mathematics minor requires at least 6cr of 300-level or higher MATH courses.

Bachelor of Science—Computer Science/Cyber Security Track

Liberal Studies: As outlined in Liberal Studies section with the following specifications:
Mathematics: 3cr, MATH 125 (1)
Social Science: CRIM 101 (2)
Liberal Studies Elective: 3cr, MATH 216, no courses with COSC prefix

Major: 49

Core Courses:
COSC 105  Fundamentals of Computer Science 3cr
COSC 110  Problem Solving and Structured Programming 3cr
COSC 210  Object-Oriented and GUI Programming 3cr
COSC 220  Applied Computer Programming 4cr
COSC 300  Computer Organization and Assembly Language 3cr
COSC 310  Data Structures and Algorithms 3cr
COSC 319  Software Engineering Concepts 3cr
COSC 341  Introduction to Database Management Systems 3cr
COSC 380  Seminar on the Computing Profession and Ethics 2cr
COSC 480  Seminar on Technical Topics 1cr

Cyber Security Required Courses:
COSC 216  Introduction to Cyber Security 3cr
COSC 345  Computer Networks 3cr
COSC 356  Network Security 3cr
COSC 473  Software Engineering Practice or
or 493  Internship in Computer Science (3) 3cr

Controlled Electives: 6cr from the following: (4,5)
COSC 362  Unix System  3cr
COSC 365  Web Program Development  3cr
IFMG 468  Information Technology Security  3cr

Upper-Level Electives:  3cr from the following: (5) (6)
COSC 410, 427, 429, 430, 432, 454, 465, 482

Minor in Criminology (2)  15

Other Requirements:  3

Additional Mathematics:
MATH 309  Discrete Mathematics  3cr

Free Electives:  9-10

Total Degree Requirements:  120

(1) MATH 125 can be substituted by MATH 121.
(2) CRIM 101 (taken as part of the social science requirement) is counted as part of the 18cr Criminology minor. Fifteen additional credits of CRIM are required.
(3) COSC 493 may be selected after completion of sophomore year. Note: If a 6cr COSC 493 is taken, 3cr are applied toward COSC required courses and COSC 473 is required. If a 12cr COSC 493 is taken, 3cr are applied toward COSC required courses and COSC 473 is required. If a 12 cr COSC 493 is taken 3cr are applied toward COSC required course and 3cr toward COSC upper-level electives.
(4) Upper-level electives may be counted as controlled electives. 3cr of Intermediate Level foreign language may be applied toward controlled electives.
(5) Controlled and upper-level electives may not be applied toward more than one track in computer science.
(6) No more than 6 credits of overlap can be used for Computer Science majors and Cyber Security minors.

Minor—Computer Science  18

Required Courses:
COSC 110  Problem Solving and Structured Programming  3cr
COSC 210  Object-Oriented and GUI Programming  3cr

Controlled Electives: (1, 2, 3)  12cr
Select additional 12 credits in computer science including at least six credits from 300-level or higher courses. COSC 143 cannot be counted as part of a computer science minor.
(1) COSC 101 is an appropriate entry course for this minor. However, COSC 101 cannot be counted as part of a computer science minor by management information systems majors.
(2) No more than six credits of overlap can be used for computer science and cyber security minors.
(3) See computer science minor advisor for suggestions.

Minor—Cyber Security (1)  18

Required Courses:
COSC 108  Introduction to Programming via Alice (2) or  3cr
or 110  Problem Solving and Structured Programming
COSC 216  Introduction to Cyber Security  3cr
COSC 345  Computer Networks (3) or
or COSC/IFMG 352  LAN Design and Installation (3)  3cr
CRIM 101  Crime and Justice Systems (4) or  3cr
or 102  Survey of Criminology (4)
CRIM 321  Cybersecurity and Loss Prevention  3cr
CRIM 323  Cybersecurity and the Law  3cr
(1) Computer Science/Cyber Security students are not eligible to take this minor; instead, they must take a Criminology minor.
(2) Computer science majors cannot count COSC 108 or 110; instead, they must take one additional course from the following: CRIM 344, 354, 401.
(3) Computer science majors cannot count COSC/IFMG 352. Computer science majors must take COSC 345.
(4) Criminology majors cannot count CRIM 101 or 102; instead, they must take one additional course from the following: COSC 341, 356, 362, 427, 429, 432, 454, 482. IFMG 382. Students must select COSC 356 to receive NSTISSE 4011 Certification.

Bachelor of Science—Mathematics

The program for a mathematics major in the Koppchick College of Natural Sciences and Mathematics has three options. A student may pursue a degree with a major in mathematics or a degree with a major in mathematics with a concentration in either applied mathematics or actuarial science. Those completing a degree with a major in mathematics will be prepared to continue their studies in mathematics in graduate school, though some may enter business, industry, or government service. Students receiving a mathematics degree with a concentration in applied mathematics will be primarily prepared to enter business, industry, or government service in an area where mathematics or computer science is used, or to continue their studies in applied mathematics or computer science in graduate school. Students in the actuarial science concentration take additional course work in finance and economics, preparing them to complete the first two professional actuarial exams and to pursue employment in the areas of insurance and investment.

Bachelor of Science in Education—Mathematics Education

The program leading to the BSEd degree with a major in mathematics education prepares the student for teaching mathematics in grades 7-12. Many graduates, however, continue their formal education in mathematics at the graduate level or work in government or industry. Students interested in the BSEd—Middle-Level Education 4-8/Mathematics specialization should refer to the College of Education and Communications, Department of Professional Studies in Education, section of the catalog.

Mathematics Minor

The minor consists of a minimum of 18 credits in mathematics including at least 6 credits from 300-level or higher courses. The minor prepares students for advanced study in areas such as economics, computer science, physics, and other natural sciences. Anyone required to take a year of calculus should consider the Mathematics minor.

A cumulative GPA of at least 2.0 in MATH courses is required for the Mathematics or Applied Statistics minor. No more than 6 credits of overlap can be used for the Mathematics and Applied Statistics minors. Transfer students must take at least three courses from IUP with at least two courses from the IUP Mathematics Department in order to complete a minor.

Applied Statistics Minor

The Applied Statistics minor consists of 18 credits in mathematics and statistics. It is designed for students who want to apply statistical methodology to investigate real-world problems. The use of statistical software and interpretation of results is heavily emphasized. The minor is created for students from a variety of majors, including those in the natural sciences, social sciences, and business.

Elementary and Middle-Level Mathematics Minor

The minor consists of 18 credits in Elementary and Middle-Level Mathematics Education. The minor may offer additional preparation for the teaching of elementary and middle mathematics. This minor does not lead to certification and is not open to students majoring in middle-level education 4-8/mathematics.

Bachelor of Science—Mathematics

Liberal Studies: As outlined in Liberal Studies section with the following specifications: 46-47
Mathematics: MATH 125
Liberal Studies Electives: 6cr, no courses with MATH prefix, includes intermediate-level foreign language
Major: 40-41
Required Courses:
MATH 111  First-year Seminar  1cr
MATH 126  Calculus II/Physics, Chemistry, Mathematics  3cr
MATH 171  Introduction to Linear Algebra  3cr
MATH 216  Probability and Statistics for Natural Sciences  3cr
MATH 225  Calculus III/Physics, Chemistry, Mathematics  3cr
MATH 271  Introduction to Mathematical Proofs I  3cr
MATH 272  Introduction to Mathematical Proofs II  3cr
MATH 341  Differential Equations  3cr
MATH 480  Senior Seminar  3cr
Controlled Electives:  Four courses from the following:  12cr
MATH 371, 421, 422, 423, 427, 476, 477
A minimum of 3 additional cr from the list above or the following:  3-4cr
MATH 342, 350, 353, 355, 363, 364, 445, 446, 447, 481
Other Requirements:  3
Computer Science:
COSC 110  Problem Solving and Structured Programming  3cr
Free Electives:  29-31
Total Degree Requirements:  120

Bachelor of Science—Mathematics/Actuarial Track (1, 2)

Liberal Studies:  As outlined in Liberal Studies section with the following specifications:
Mathematics:  MATH 125
Social Science:  ECON 121
Liberal Studies Elective:  6cr, no courses with MATH prefix, includes intermediate-level foreign language and ECON 122 are required

Major:  49
Required Courses:
MATH 111  First-year Seminar  1cr
MATH 126  Calculus II/Physics, Chemistry, Mathematics  3cr
MATH 171  Introduction to Linear Algebra  3cr
MATH 216  Probability and Statistics for Natural Sciences  3cr
MATH 225  Calculus III/Physics, Chemistry, Mathematics  3cr
MATH 271  Introduction to Mathematical Proofs I  3cr
MATH 272  Introduction to Mathematical Proofs II  3cr
MATH 341  Differential Equations  3cr
MATH 363  Mathematical Statistics I  3cr
MATH 364  Mathematical Statistics II  3cr
MATH 447  Introduction to Financial Mathematics  3cr
MATH 450  Topics in Applied Computational Mathematics  3cr
Controlled Electives:  COSC/MATH 343  Introduction to Numerical Methods  3cr
MATH 416  Time Series Analysis  3cr
One course from the following:  MATH 342, 364, 445, 446
One course from the following:  MATH 371, 421, 423
One course from the following:  MATH 445 or 446
One course from the following:  MATH 480 or 493 (2)
Other Requirements:  6
ECON 356  Econometrics (4)  3cr
FIN 320  Corporate Finance (4)  3cr
Free Electives:  18-19
Total Degree Requirements:  120
(1)  A student may select courses for a specialized area:
Statistics/Actuarial Science:  MATH 363, 364, 371, 446
Additionally, a student should minor in applied statistics.
Math Analysis/Engineering:  MATH 342/447, 371, 423
Operations Research:  MATH 371, 421, 445/446, 447
(2)  Three credits of internship will be applied to the major. Additional credits may count as free electives.

Bachelor of Science in Education—Mathematics Education (*)

Liberal Studies:  As outlined in Liberal Studies section with the following specifications:
Mathematics:  MATH 125
Social Science:  PSYC 101
Liberal Studies Elective:  3cr, no courses with MATH prefix

College:  31
Preprofessional Education Sequence:
ACE 103  Digital Instructional Technology  3cr
EDSP 102  Educational Psychology  3cr
Professional Education Sequence:
EDEX 301  Education of Students with Disabilities in Inclusive Secondary Settings  2cr
EDEX 323  Instruction of English Language Learners with Special Needs  2cr
EDSP 477  Assessment of Student Learning: Design and Interpretation of Educational Measures  3cr
EDUC 242  Pre-student Teaching Clinical Experience I  1cr
EDUC 342  Pre-student Teaching Clinical Experience II  1cr
EDUC 441  Student Teaching  12cr
EDUC 442  School Law  1cr
EDUC 456  Teaching Math in the Secondary Schools  3cr
Major:  37
Required Courses:
EDUC 456  Teaching Math in the Secondary Schools  3cr
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 111</td>
<td>First-year Seminar</td>
<td>1cr</td>
</tr>
<tr>
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<td>Calculus II/Physics, Chemistry, Mathematics</td>
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<td>MATH 272</td>
<td>Introduction to Mathematical Proofs II</td>
<td>3cr</td>
</tr>
<tr>
<td>MATH 340</td>
<td>Principles of Secondary School Mathematics</td>
<td>3cr</td>
</tr>
<tr>
<td>MATH 350</td>
<td>History of Mathematics</td>
<td>3cr</td>
</tr>
<tr>
<td>MATH 353</td>
<td>Theory of Numbers</td>
<td>3cr</td>
</tr>
<tr>
<td>MATH 355</td>
<td>Foundations of Geometry I</td>
<td>3cr</td>
</tr>
<tr>
<td>MATH 430</td>
<td>Seminar in Teaching Secondary School Math.</td>
<td>3cr</td>
</tr>
<tr>
<td>MATH 460</td>
<td>Technology in Mathematics Instruction</td>
<td>3cr</td>
</tr>
<tr>
<td>COSC 110</td>
<td>Problem Solving and Structured Programming</td>
<td>3cr</td>
</tr>
</tbody>
</table>

Other Requirements:
- 3 cr

Free Electives:
- 5-6 cr

Total Degree Requirements:
- 120 cr

(*) See requirements leading to teacher certification, titled “3-Step Process for Teacher Education,” in the College of Education and Communications section of this catalog.

### Bachelor of Science—Natural Science

#### Liberal Studies: As outlined in Liberal Studies section with the following specifications:
- Mathematics: MATH 121
- Natural Science: CHEM 111-112
- Social Science: PSYC 101

#### Writing Intensive: A second writing-intensive course is not required for three-year students who transfer to a professional school with an articulation agreement.

#### Liberal Studies Elective: 3 cr, BTED/COSC/IFMG 101; no courses with SCI prefix

**Major:**

**Required Courses:**
- Biology:
  - BIOL 150 Human Anatomy 4 cr
  - BIOL 201 Principles of Ecology and Evolution 4 cr
  - BIOL 202 Principles of Cell and Molecular Biology 4 cr
  - BIOL 203 Principles of Genetics and Development 4 cr
  - BIOL 240 Human Physiology 4 cr
  - BIOL 241 Introductory Medical Microbiology 4 cr
- Chemistry:
  - CHEM 231 Organic Chemistry I 4 cr
  - CHEM 332 Organic Chemistry II or 351 Biochemistry 4 cr
- Physics:
  - PHYS 111 Physics I Lecture 3 cr
  - PHYS 121 Physics I Lab 1 cr
  - PHYS 112 Physics II Lecture 3 cr
  - PHYS 122 Physics II Lab 1 cr
- Mathematics:
  - MATH 216 Probability and Statistics for Natural Sciences 3 cr

**Other Requirements:**
- 0-6 cr
- Foreign Language Intermediate Level 0-6 cr

**Free Electives:**
- 23-29 cr

**Total Degree Requirements:**
- 120 cr

### Bachelor of Science—Natural Science/Pre-audiology Track (*)

#### Liberal Studies: As outlined in Liberal Studies section with the following specifications:
- Mathematics: MATH 121
- Natural Science: CHEM 111-112
- Social Science: PSYC 101, ECON 101 (or ECON 121)

#### Writing Intensive: ENGL 222 (this second writing-intensive course is not required for three-year students who transfer to a professional school with an articulation agreement.

#### Liberal Studies Elective: 3 cr, BTED/COSC/IFMG 101; no courses with SCI prefix

### Natural Science

**Website:** www.iup.edu/preprofessional

Robert Hinrichsen, Coordinator

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The program leading to the BS degree with a major in natural science is designed to prepare students for admission to professional schools—chiropractic, dentistry, optometry, pharmacy, podiatry, physical therapy, physician assistant, and audiology. If they qualify, the BS degree with a major in natural science can be earned by students who are accepted for early admission to professional schools that have an articulation agreement with IUP.

In some cases, students interested in obtaining a four-year degree before entering a medical or professional school should enroll in a program leading to a BA or BS degree in the departments of Biology or Chemistry. Students considering a professional career in a high-technology business or health-oriented businesses or industries may wish to obtain a foundation in the natural sciences while using their free electives to pursue additional work in areas such as molecular biology, biochemistry, psychology, economics, pre-law, or athletic training. The BS program with a major in natural science may not be used for a second major or a second degree by majors in the College of Natural Sciences and Mathematics. For further information, contact the Natural Science program coordinator.
Major:

**Required Courses:**

- BIOL 150  Human Anatomy 4cr
- BIOL 201  Principles of Ecology and Evolution 4cr
- BIOL 202  Principles of Cell and Molecular Biology 4cr
- BIOL 203  Principles of Genetics and Development 4cr
- BIOL 240  Human Physiology 4cr
- BIOL 477  Neurobiology 3cr
- EDHL 114  Introduction to Deaf and Hard-of-Hearing Persons 3cr
- MATH 216  Probability and Statistics for Natural Sciences 3cr
- PHYS 111  Physics I Lecture 3cr
- PHYS 112  Physics I Lab 1cr
- SPLP 222  Introduction to Audiology 3cr
- SPLP 311  Aural Rehabilitation 3cr
- SPLP 312  Advanced Audiology and Hearing Disorders 3cr
- SPLP 422  Central Auditory Processing Disorders in the Educational Setting 3cr

**Other Requirements:**

- EDHL 115  Introduction to American Sign Language 3cr
- EDHL 215  Intermediate American Sign Language 3cr

**Free Electives:** (1) 24 cr

**Total Degree Requirements:** 120 cr

(*) Students accepted for early admission to an accredited post-graduate Doctor of Audiology (AuD) program within the US must complete a minimum 96cr, including all of the program requirements listed above. After completing their first year of professional school studies, the student can transfer back to IUP up to 30cr of their AuD program course work. To then graduate from IUP, the student must send an official copy of their transcripts (and a cover letter) to the IUP office of Transfer Services. They must also contact the dean of the College of Natural Sciences and Mathematics for instructions on applying for graduation.

(1) The student, under consultation with her/his advisor, should select as their free electives courses that are appropriate for their targeted post-graduate AuD programs.

**Bachelor of Science—Natural Science/Pre-dentistry Track (**)**

**Liberal Studies:** As outlined in Liberal Studies section with the following specifications:
- **Mathematics:** MATH 121
- **Natural Science:** CHEM 111-112
- **Social Science:** PSYC 101

**Writing Intensive:** A second writing-intensive course is not required for students who transfer to a professional school with an articulation agreement.

**Liberal Studies Elective:** 3cr, COSC 101, no courses with SCI prefix

**Major:**

**Required Courses:**

- BIOL 150  Human Anatomy 4cr
- BIOL 201  Principles of Ecology and Evolution 4cr
- BIOL 202  Principles of Cell and Molecular Biology 4cr
- BIOL 203  Principles of Genetics and Development 4cr
- BIOL 240  Human Physiology 4cr
- BIOL 241  Introductory Medical Microbiology 4cr
- CHEM 231  Organic Chemistry I 4cr
- CHEM 332  Organic Chemistry II or 351  Biochemistry 4cr
- PHYS 111  Physics I Lecture 3cr
- PHYS 112  Physics I Lab 1cr
- PHYS 122  Physics II Lab 1cr
- MATH 216  Probability and Statistics for Natural Sciences 3cr

**Other Requirements:**

- Foreign Language Intermediate Level 0-6 cr

**Free Electives:** (1) 23-29 cr

Electives to meet minimum of 90 IUP cr and minimum of 24cr in Humanities and Social Sciences for admission to affiliated chiropractic colleges after three years at IUP.

Maximum cr for work at affiliated chiropractic school 30cr

**Total Degree Requirements:** 120 cr

(*) Accelerated three-year New York Chiropractic College, Logan Chiropractic College, Sherman Chiropractic College, and Parker Chiropractic programs. A maximum of 30cr of work may be transferred after the first year at one of the chiropractic school programs. Upon completion of the first year of studies at one of the chiropractic school programs, a transcript from that school is to be sent by the student to the dean of the College of Natural Sciences and Mathematics with a note requesting application materials for graduation.

(1) Student is to work with his/her advisor to select appropriate free electives for professional school. Additional courses in biology and KHSS 315 or 345 are recommended.

**Bachelor of Science—Natural Science/Pre-chiropractic Track (**)**

**Liberal Studies:** As outlined in Liberal Studies section with the following specifications:
- **Mathematics:** MATH 121
- **Natural Science:** CHEM 111-112
- **Social Science:** PSYC 101

**Writing Intensive:** A second writing-intensive course is not required for three-year students who transfer to a professional school with an articulation agreement.

**Liberal Studies Elective:** 3cr, COSC 101, no courses with SCI prefix

**Major:**

**Required Courses:**

- BIOL 150  Human Anatomy 4cr
- BIOL 201  Principles of Ecology and Evolution 4cr
- BIOL 202  Principles of Cell and Molecular Biology 4cr
- BIOL 203  Principles of Genetics and Development 4cr
- BIOL 240  Human Physiology 4cr
- BIOL 241  Introductory Medical Microbiology 4cr
- CHEM 231  Organic Chemistry I 4cr
- CHEM 332  Organic Chemistry II or 351  Biochemistry 4cr
- PHYS 111  Physics I Lecture 3cr
- PHYS 112  Physics II Lecture 3cr
- PHYS 121  Physics I Lab 1cr
- PHYS 122  Physics II Lab 1cr
- MATH 216  Probability and Statistics for Natural Sciences 3cr

**Other Requirements:**

- Foreign Language Intermediate Level 0-6 cr

**Free Electives:** (1) 23-29 cr

Electives to meet minimum of 90 IUP cr and minimum of 24cr in Humanities and Social Sciences for admission to affiliated dental school after three years at IUP.

Maximum cr for work at affiliated dental school 30cr

**Total Degree Requirements:** 120 cr

(*) Accelerated three-year Temple University School of Dentistry program. A maximum of 30cr of work may be transferred after the first year at Temple University School of Dentistry. Upon completion of the first year of studies at Temple University School of Dentistry, a transcript from Temple University is to be sent by the student to the dean of the College of Natural Sciences and Mathematics with a note requesting application materials for graduation.

(1) Student is to work with his/her advisor to select appropriate free electives for professional school. Ceramics and additional courses in biology are highly recommended.
Bachelor of Science—Natural Science/Pre-optometry Track (*)

Liberal Studies: As outlined in Liberal Studies section with the following specifications:
Mathematics: MATH 121
Natural Science: CHEM 111-112
Social Science: ECON 101, PSYC 101
Writing Intensive: A second writing-intensive course is not required for three-year students who transfer to a professional school with an articulation agreement.

Liberal Studies Elective: 3cr, COSC 101, no courses with SCI prefix

Major: 43

Required Courses:
BIOL 150 Human Anatomy 4cr
BIOL 201 Principles of Ecology and Evolution 4cr
BIOL 202 Principles of Cell and Molecular Biology 4cr
BIOL 203 Principles of Genetics and Development 4cr
BIOL 240 Human Physiology 4cr
BIOL 241 Introductory Medical Microbiology 4cr
CHEM 231 Organic Chemistry I 4cr
CHEM 332 Organic Chemistry II or 351 Biochemistry 4cr
PHYS 111 Physics I Lecture 3cr
PHYS 121 Physics I Lab 1cr
PHYS 112 Physics II Lecture 3cr
PHYS 122 Physics II Lab 1cr
MATH 216 Probability and Statistics for Natural Sciences 3cr

Other Requirements:

Free Electives: (1) 23-29 Electives to meet minimum of 90 IUP cr and minimum of 24cr in Humanities and Social Sciences for admission to affiliated pharmacy school after three years at IUP
Maximum cr for work at affiliated pharmacy school 30cr

Total Degree Requirements: 120

(*) Accelerated three-year Shenandoah University School of Pharmacy (SUSP) or Lake Erie College of Osteopathic Medicine School of Pharmacy (LECOMP) program. A maximum of 30cr may be transferred after first year at SUSP or LECOMP. Upon completion of the first year of studies at either SUSP or LECOMP, a transcript from SUSP or LECOMP is to be sent by the student to the dean of the College of Natural Sciences and Mathematics at IUP with a note requesting application materials for graduation.

(1) Student is to work with his/her advisor to select appropriate free electives for professional school. Additional courses in chemistry and COMM 101 are recommended.

Bachelor of Science—Natural Science/Pre-pharmacy Track (*)

Liberal Studies: As outlined in Liberal Studies section with the following specifications:
Mathematics: MATH 121
Natural Science: CHEM 111-112
Social Science: ECON 101, PSYC 101
Writing Intensive: A second writing-intensive course is not required for three-year students who transfer to a professional school with an articulation agreement.

Liberal Studies Elective: 3cr, COSC 101, no courses with SCI prefix

Major: 43

Required Courses:
BIOL 150 Human Anatomy 4cr
BIOL 201 Principles of Ecology and Evolution 4cr
BIOL 202 Principles of Cell and Molecular Biology 4cr
BIOL 203 Principles of Genetics and Development 4cr
BIOL 240 Human Physiology 4cr
BIOL 241 Introductory Medical Microbiology 4cr
CHEM 231 Organic Chemistry I 4cr
CHEM 332 Organic Chemistry II or 351 Biochemistry 4cr
PHYS 111 Physics I Lecture 3cr
PHYS 121 Physics I Lab 1cr
PHYS 112 Physics II Lecture 3cr
PHYS 122 Physics II Lab 1cr
MATH 216 Probability and Statistics for Natural Sciences 3cr

Other Requirements:

Free Electives: (1) 23-29 Electives to meet minimum of 90 IUP cr and minimum of 24cr in Humanities and Social Sciences for admission to affiliated physical therapy school after three years at IUP
Maximum cr for work at affiliated physical therapy school 30cr

Total Degree Requirements: 120

(*) Accelerated three-year Gannon University School of Physical Therapy
program. A maximum of 30 cr of work may be transferred after the first year at Gannon University School of Physical Therapy. Upon completion of the first year of studies at one of the physical therapy schools, a transcript from that school is to be sent by the student to the dean of the College of Natural Sciences and Mathematics with a note requesting application materials for graduation. Articulation agreement with Chatham University School of Physical Therapy requires a BS from IUP.

(1) Student is to work with his/her advisor to select appropriate free electives for professional school. Neurobiology, biomechanics, and athletic training are highly recommended.

Bachelor of Science—Natural Science/Pre-physician Assistant Track (*)

Liberal Studies: As outlined in Liberal Studies section with the following specifications:
- Mathematics: MATH 121
- Natural Science: CHEM 111-112
- Social Science: PSYC 101

Writing Intensive: A second writing-intensive course is not required for three-year students who transfer to a professional school with an articulation agreement.

Liberal Studies Elective: 3 cr, BTED/COSC/IFMG 101, no courses with SCI prefix

Major: 49

Required Courses:
- BIOL 200 Medical Terminology 2 cr
- BIOL 201 Principles of Ecology and Evolution 4 cr
- BIOL 202 Principles of Cell and Molecular Biology 4 cr
- BIOL 203 Principles of Genetics and Development 4 cr
- BIOL 240 Human Physiology 4 cr
- BIOL 241 Introductory Medical Microbiology 4 cr
- BIOL 402 Advanced Human Anatomy 4 cr
- CHEM 231 Organic Chemistry I 4 cr
- CHEM 332 Organic Chemistry II 4 cr
- CHEM 351 Biochemistry 4 cr
- MATH 216 Probability and Statistics for Natural Sciences or Probability and Statistics 3 cr
- PHYS 111 Physics I Lecture 3 cr
- PHYS 112 Physics II Lecture 3 cr
- PHYS 121 Physics I Lab 1 cr
- PHYS 122 Physics II Lab 1 cr

Other Requirements:
- Foreign Language through Intermediate Level 0-4
- Free Electives: (1) 22-26
- Total Degree Requirements: 120

(*) Accelerated three-year Salus University program

(1) The student, under consultation with his/her advisor, should select free electives courses that are appropriate for the student’s targeted postgraduate PA programs.

Bachelor of Science—Natural Science/Pre-podiatry Track (*)

Liberal Studies: As outlined in Liberal Studies section with the following specifications:
- Mathematics: MATH 121
- Natural Science: CHEM 111-112
- Social Science: ECON 101, PSYC 101

Writing Intensive: A second writing-intensive course is not required for three-year students who transfer to a professional school with an articulation agreement.

Liberal Studies Elective: 3 cr, COSC 101, no courses with SCI prefix

Major: 43

Required Courses:
- BIOL 150 Human Anatomy 4 cr
- BIOL 201 Principles of Ecology and Evolution 4 cr
- BIOL 202 Principles of Cell and Molecular Biology 4 cr
- BIOL 203 Principles of Genetics and Development 4 cr
- BIOL 240 Human Physiology 4 cr
- BIOL 241 Introductory Medical Microbiology 4 cr
- CHEM 231 Organic Chemistry I 4 cr
- CHEM 332 Organic Chemistry II 4 cr
- CHEM 351 Biochemistry 4 cr
- MATH 216 Probability and Statistics for Natural Sciences 3 cr
- PHYS 111 Physics I Lecture 3 cr
- PHYS 112 Physics II Lecture 3 cr
- PHYS 121 Physics I Lab 1 cr
- PHYS 122 Physics II Lab 1 cr

Free Elective: (1) 23-29

Other Requirements:
- Max cr for work at affiliated podiatry school 30 cr
- Total Degree Requirements: 120

(*) Accelerated three-year Temple University School of Podiatry program.

(1) Accelerated three-year Temple University School of Podiatry. A maximum of 30 cr may be transferred after the first year at Temple University School of Podiatry. Upon completion of the first year of studies at Temple University School of Podiatry, a transcript from Temple University is to be sent by the student to the dean of the College of Natural Sciences and Mathematics at IUP with a note requesting application materials for graduation.

Bachelor of Science in Education

The BSEd—Physics Education combines the content knowledge of physics with the pedagogical training offered by the College of Education and Communications to prepare graduates to teach physics as well as science in the secondary school.
Minor in Physics

To minor in physics, a student must successfully complete 18-20 credits in physics consisting of at least 6 credits at the 300 level or higher.

Nanofabrication Cooperative Experience

The IUP physics department participates in a cooperative agreement with Penn State University (PSU) to help address the need of Pennsylvania industry for skilled nanofabrication workers. anyone who meets the prerequisite requirements may enroll through IUP in a one-semester experience at the PSU Center for Nanotechnology Education and Utilization (CNEU). These courses are offered in two modes: (1) as a capstone semester experience at the Penn State CNEU or (2) as a hybrid capstone semester consisting of distance learning followed by a two-week hands-on lab experience at CNEU. For more information, contact the physics department.

Bachelor of Science—Physics

Liberal Studies: As outlined in Liberal Studies section with the following specifications:

Mathematics: MATH 125

Natural Science: PHYS 131-141 and 132-142

Liberal Studies Elective: 3cr, MATH 126, no courses with PHYS prefix

Major: 34

Required Courses:

PHYS 131-141 Physics I-C Lecture (1)  *cr
PHYS 132-142 Physics II-C Lecture (1)  *cr
PHYS 141-142 Physics I-C Lab (1)  *cr
PHYS 142-143 Physics II-C Lab (1)  *cr
PHYS 331 Modern Physics  3cr
PHYS 345 Optics  3cr
PHYS 441 Classical Mechanics  3cr
PHYS 451 Electricity and Magnetism  3cr

Additional Required Courses:

PHYS 231 Electronics  4cr
PHYS 342 Thermal and Statistical Physics  3cr
PHYS 350 Intermediate Experimental Physics I  3cr
PHYS 401 Theoretical Physics  3cr
PHYS 461 Quantum Mechanics I  3cr

One course from the following: PHYS 472 or 490  3cr

One additional PHYS majors course  3cr

Other Requirements:

COSC 110 Problem Solving and Structured Programming  3cr
MATH 225 Calculus III  3cr
MATH 341 Differential Equations  3cr
MATH 342 Advanced Mathematics for Applications  4cr

One course from the following: COSC 343, MATH 171, 363, 421, 423  3cr

Foreign Language Intermediate Level (2)  0-6cr

Free Electives:  20-26

Total Degree Requirements:  120

(1) Credits are counted in the Liberal Studies natural science requirement.
(2) Six credits of computer programming will substitute for the foreign language requirement: COSC 110, 210, or higher-level computer science courses (COSC 343 recommended), with department permission.

Bachelor of Science—Physics/Pre-engineering Track

Liberal Studies: As outlined in Liberal Studies section with the following specifications:

Mathematics: MATH 125

Natural Science: PHYS 131-141 and 132-142

Liberal Studies Elective: 3cr, MATH 126, no courses with PHYS prefix

Major: 34

Required Courses:

PHYS 131 Physics I-C Lecture (1)  *cr
PHYS 132 Physics II-C Lecture (1)  *cr

PHYS 141 Physics I-C Lab (1)  *cr
PHYS 142 Physics II-C Lab (1)  *cr
PHYS 331 Modern Physics  3cr
PHYS 345 Optics  3cr
PHYS 441 Classical Mechanics  3cr
PHYS 451 Electricity and Magnetism  3cr

Additional Required Physics Courses: (2)

PHYS 231 Electronics  4cr
PHYS 342 Thermal and Statistical Physics  3cr
PHYS 350 Intermediate Experimental Physics I  3cr
PHYS 355 Computer Interfacing  3cr
PHYS 401 Theoretical Physics  3cr
PHYS 461 Quantum Mechanics I  3cr
PHYS 472 Nuclear Physics or or 490 Solid State Physics  3cr

Controlled Electives: As required per engineering program  6-8

Chemical Engineering:

CHEM 231 Organic Chemistry I  4cr
CHEM 332 Organic Chemistry II  4cr

Civil Engineering:

MATH 216 Probability and Statistics for Natural Sciences  3cr
——— Technical elective  3-4cr

Electrical Engineering:

MATH 216 Probability and Statistics for Natural Sciences  3cr
——— Technical elective  3-4cr

Industrial Engineering:

MATH 216 Probability and Statistics for Natural Sciences  3cr
——— Technical elective  3-4cr

Materials Science and Engineering:

CHEM 231 Organic Chemistry I  4cr
CHEM 332 Organic Chemistry II  4cr

Mechanical Engineering:

——— Technical electives  6-8cr

Other Requirements:

CHEM 111 General Chemistry I  4cr
CHEM 112 General Chemistry II  4cr
COSC 110 Problem Solving and Structured Programming  3cr
COSC 343 Introduction to Numerical Methods  3cr
MATH 225 Calculus III  3cr
MATH 341 Differential Equations  3cr
MATH 342 Advanced Mathematics for Applications  4cr

Foreign Language Intermediate Level (3)  0-6cr

Free Electives: (If no automatic transfer into the University of Pittsburgh)  4-12

Special Requirements:

Two years at University of Pittsburgh School of Engineering (4)

Total Degree Requirements:  120

(1) Credits are counted in the Liberal Studies natural science requirement.
(2) Some of these courses may be taken at the University of Pittsburgh.
(3) Six credits of computer programming will substitute for the foreign language requirement: COSC 110, 210, or higher-level computer science courses (COSC 343 recommended), with department permission.
(4) A 3.0 cumulative GPA is required for transfer to the University of Pittsburgh. Students transferring to University of Pittsburgh do not need a second writing-intensive class. Students need at most 64 additional credits from the University of Pittsburgh to receive the engineering degree.

Bachelor of Science—Physics/Nanomanufacturing Technology Track

Liberal Studies: As outlined in Liberal Studies section with the following specifications:
Bachelor of Science—Physics/Applied Physics

Liberal Studies: As outlined in Liberal Studies section with the following specifications:
- Mathematics: MATH 125
- Natural Science: PHYS 131-141 and 132-142
- Liberal Studies Elective: 3cr, MATH 126, no courses with PHYS prefix

Major:
- Required Courses: 46 cr
  - PHYS 131 Physics I-C Lecture *cr (1)
  - PHYS 132 Physics II-C Lecture *cr (1)
  - PHYS 141 Physics I-C Lab *cr (1)
  - PHYS 142 Physics II-C Lab *cr (1)
  - PHYS 331 Modern Physics 3cr
  - PHYS 345 Optics 3cr
  - PHYS 441 Classical Mechanics 3cr
  - PHYS 451 Electricity and Magnetism 3cr
- Additional Required Courses:
  - PHYS 231 Electronics 4cr
  - PHYS 345 Optics 3cr
  - PHYS 441 Classical Mechanics 3cr
  - PHYS 451 Electricity and Magnetism 3cr
- Additional Elective:
  - Select one of the following subfields:
    - Solid State Electronics: COSC 300, MATH 342, PHYS 323, 342, 353, 432, 475

Free Electives: 7-13 cr

Total Degree Requirements: 120 cr

(1) Credits are counted in the Liberal Studies natural science requirement.
(2) Six credits of computer programming will substitute for the foreign language requirement: COSC 110, 210, or higher-level computer science courses (COSC 343 recommended), with department permission.

Bachelor of Science in Education—Physics (*)

Liberal Studies: As outlined in Liberal Studies section with the following specifications:
- Mathematics: MATH 125
- Natural Science: CHEM 111-112 or CHEM 113-114
- Social Science: PSYC 101
- Liberal Studies Electives: 6cr, MATH 341, GEOS 101 or 103 or 105, no courses with PHYS prefix

College: 31 cr

Preregisteral Education Sequence:
- ACE 103 Digital Instructional Technology 3cr
- EDSP 102 Educational Psychology 3cr

Professional Education Sequence:
- EDEX 301 Education of Students with Disabilities in Inclusive Secondary Settings 3cr
- EDEX 302 Instruction of English Language Learners with Special Needs 3cr
- EDSP 477 Assessment of Student Learning: Design and Interpretation of Educational Measures 3cr
- EDUC 242 Pre-student Teaching Clinical Experience I 1cr
- EDUC 342 Pre-student Teaching Clinical Experience II 1cr
- EDUC 441 Student Teaching 12cr
- EDUC 442 School Law 1cr
- EDUC 451 Teaching Science in the Secondary School 3cr

Major:
- Required Courses: 28 cr
  - PHYS 131 Physics I-C Lecture 3cr
  - PHYS 132 Physics II-C Lecture 3cr
  - PHYS 141 Physics I-C Lab 3cr
  - PHYS 142 Physics II-C Lab 3cr
  - PHYS 331 Modern Physics 3cr
  - PHYS 345 Optics 3cr
  - PHYS 441 Classical Mechanics 3cr
  - PHYS 451 Electricity and Magnetism 3cr
  - PHYS 231 Electronics 4cr
  - PHYS 342 Thermal and Statistical Physics 3cr
  - PHYS 350 Intermediate Experimental Physics I 3cr
  - PHYS 475 Physics of Semiconductor Devices I 3cr
- Controlled Elective: Physics electives—two major courses 200 level or higher 6cr

Other Requirements:
- BIOL 201 or Principles of Ecology and Evolution or 4cr
- MATH 126 Calculus II for Physics, Chemistry, and Mathematics 3cr
- MATH 225 Calculus III for Physics, Chemistry, and Biology 4cr

(*) Bachelor of Science in Education—Physics includes the following requirements:
- EDSP 102 Educational Psychology 3cr
- EDEX 301 Education of Students with Disabilities in Inclusive Secondary Settings 3cr
- EDEX 302 Instruction of English Language Learners with Special Needs 3cr
- EDSP 477 Assessment of Student Learning: Design and Interpretation of Educational Measures 3cr
- EDUC 242 Pre-student Teaching Clinical Experience I 1cr
- EDUC 342 Pre-student Teaching Clinical Experience II 1cr
- EDUC 441 Student Teaching 12cr
- EDUC 442 School Law 1cr
- EDUC 451 Teaching Science in the Secondary School 3cr

Major:
- Required Courses: 28 cr
  - PHYS 131 Physics I-C Lecture 3cr
  - PHYS 132 Physics II-C Lecture 3cr
  - PHYS 141 Physics I-C Lab 3cr
  - PHYS 142 Physics II-C Lab 3cr
  - PHYS 331 Modern Physics 3cr
  - PHYS 345 Optics 3cr
  - PHYS 441 Classical Mechanics 3cr
  - PHYS 451 Electricity and Magnetism 3cr
  - PHYS 231 Electronics 4cr
  - PHYS 342 Thermal and Statistical Physics 3cr
  - PHYS 350 Intermediate Experimental Physics I 3cr
  - PHYS 475 Physics of Semiconductor Devices I 3cr
- Controlled Elective: Physics electives—two major courses 200 level or higher 6cr

Other Requirements:
- BIOL 201 or Principles of Ecology and Evolution or 4cr
- MATH 126 Calculus II for Physics, Chemistry, and Mathematics 3cr
- MATH 225 Calculus III for Physics, Chemistry, and Biology 4cr

Bachelor of Arts—Psychology

**Liberal Studies**: As outlined in Liberal Studies section with the following specifications:
- **Mathematics**: MATH 217
- **Social Science**: PSYC 101

**Liberal Studies Elective**: 3cr, no course with PSYC prefix

**Major**

<table>
<thead>
<tr>
<th>Required Courses:</th>
<th>43-44</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 290</td>
<td>4cr</td>
</tr>
<tr>
<td>PSYC 291</td>
<td>4cr</td>
</tr>
<tr>
<td>Controlled Electives:</td>
<td>A minimum of one course from each of the following six core areas:</td>
</tr>
<tr>
<td>A. Developmental Psychology:</td>
<td>PSYC 310, 311, 312, 315 (4)</td>
</tr>
<tr>
<td>B. Individual Differences:</td>
<td>PSYC 320, 321, 325</td>
</tr>
<tr>
<td>C. Social/Environmental:</td>
<td>PSYC 330, 331, 335 (3)</td>
</tr>
<tr>
<td>D. Cognition/Learning:</td>
<td>PSYC 341, 342, 345 (4)</td>
</tr>
<tr>
<td>E. Biological Bases of Behavior:</td>
<td>PSYC 350, 352, 355, 356, 359 (5)</td>
</tr>
<tr>
<td>F. Metatheoretical Perspectives in Psychology:</td>
<td>PSYC 410, 411</td>
</tr>
<tr>
<td>Other PSYC electives beyond PSYC 101</td>
<td>6-8cr</td>
</tr>
</tbody>
</table>

**Other Requirements**: 15-21 cr
- Foreign Language Intermediate Level (6) 0-6cr
- Minor/concentration 15cr

**Free Electives**: 12-22 cr

**Total Degree Requirements**: 120 cr

(1) Students will enroll in PSYC 480 for 3cr in each of two semesters.
(2) Students will enroll in PSYC 483 for 3cr in each of two semesters.
(3) At least two must be content-based laboratory courses.
(4) Credit toward minor is given for only one of PSYC 310, 311, or 315.
(5) Credit toward the major is given for only one of PSYC 350 or 356 and for only one of PSYC 359 or 360.
(6) Intermediate-level foreign language may be included in Liberal Studies electives.

Bachelor of Arts—Psychology/Honors Program in Psychology

**Liberal Studies**: As outlined in Liberal Studies section with the following specifications:
- **Mathematics**: MATH 217
- **Social Science**: PSYC 101

**Liberal Studies Elective**: 3cr, no course with PSYC prefix

**Major**

<table>
<thead>
<tr>
<th>Required Courses:</th>
<th>40-43</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 290</td>
<td>Research Design and Analysis I 4cr</td>
</tr>
<tr>
<td>PSYC 291</td>
<td>Research Design and Analysis II 4cr</td>
</tr>
<tr>
<td>PSYC 480</td>
<td>Honors Seminar in Psychology (1) 6cr</td>
</tr>
<tr>
<td>PSYC 483</td>
<td>Honors Thesis (2) 6cr</td>
</tr>
</tbody>
</table>

**Controlled Electives**: A minimum of one course from each of the following six core areas: 3-4cr
- **A. Developmental Psychology**: PSYC 310, 311, 312, 315 (4)
- **B. Individual Differences**: PSYC 320, 321, 325
- **C. Social/Environmental**: PSYC 330, 331, 335 (3)
- **D. Cognition/Learning**: PSYC 341, 342, 345 (4)
- **E. Biological Bases of Behavior**: PSYC 350, 352, 355, 356, 359 (5)
- **F. Metatheoretical Perspectives in Psychology**: PSYC 410, 411

**Other Requirements**: 15-21 cr
- Foreign Language Intermediate Level (8) 0-6cr
- Minor/Concentration 15cr

**Free Electives**: 12-22 cr

**Total Degree Requirements**: 120 cr

(1) At least two must be content-based laboratory courses.
(2) Credit toward the major is given for only one of PSYC 310, 311, or 315.
(3) Credit toward the major is given for only one of PSYC 330 or 335.
(4) Credit toward the major is given for only one of PSYC 342 or 345.
(5) Credit toward the major is given for only one of PSYC 350 or 356 and for only one of PSYC 359 or 360.
(6) Intermediate-level foreign language may be included in Liberal Studies electives.

Minor—Psychology

<table>
<thead>
<tr>
<th>Required Courses:</th>
<th>18-19</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 101 General Psychology (1)</td>
<td>3cr</td>
</tr>
<tr>
<td>PSYC 280 Psychological Inquiry or 290 Research Design and Analysis I (2)</td>
<td>4cr</td>
</tr>
<tr>
<td>Four other PSYC electives beyond PSYC 101</td>
<td>12cr</td>
</tr>
</tbody>
</table>

(1) Meets Liberal Studies requirement.
(2) Prerequisite: MATH 217.
(3) Selected in consultation with the minor advisor.
(4) Credit toward minor is given for only one of PSYC 310, 311, or 315.

Minor—Psychological Science

<table>
<thead>
<tr>
<th>Required Courses:</th>
<th>18-19</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 101 General Psychology (2)</td>
<td>3cr</td>
</tr>
<tr>
<td>PSYC 290 Research Design and Analysis I (3)</td>
<td>4cr</td>
</tr>
<tr>
<td>Two 4cr PSYC laboratory courses</td>
<td>8cr</td>
</tr>
</tbody>
</table>
One PSYC elective 3-4cr

(1) At least 6cr must be 300 level or higher.
(2) Meets Liberal Studies requirement.
(3) Prerequisite: MATH 217.
Building on a strong culture of supporting student success, the University College enhances the level of support provided to students exploring their options. The University College provides support for all students who are unsure of the academic path to follow to meet their personal and career goals. With challenging courses grouped by interest areas, ranging from the arts to business to science, College Mentors and the University College staff help students navigate their way. In the University College, we don’t just ask you to pick a major, we help you discover it.

**Student support services provided include:**
- **Advising.** Each Student in the University College has a first-year College Mentor. This is a professor who will work with the student to monitor their academic progress and assist them in navigating the many university offices and their services.
- **Help with selecting a major.** Dedicated programming in the Major and Career Exploration Center helps students select a major that best fits their strengths and goals.
- **Team-taught linked courses.** During the first year, students are enrolled in linked courses that are team taught by professors from different departments with a goal of building skills for academic success throughout their college career, while finding the pathway to a major.
- **Peer mentoring.** Peer Mentors are fellow students who guide new students to resources and experiences across the university, helping them to make connections with each other.
- **Academic support.** Students have access to academic support services such as tutoring, supplemental instruction, and skill-building workshops. Crimson Common Hour events bring students together to learn about campus resources and to meet others.
- **First-year experience.** Our First-Year Experience for exploratory majors assists students in making a successful transition to college, helping them to build a strong foundation for future growth in their personal life and professional career.

**Undergraduate Majors**

The University College offers seven, subject-area-based, exploratory major options. Students select one, which will act as a starting point for finding the major that inspires them. Faculty College Mentors will help students identify their strengths and interests.

**EXPL-STEM:** Science, technology, engineering, or mathematics  
**EXPL-HSS:** Humanities such as history and English or those related to social sciences such as political science and sociology  
**EXPL-ARTS:** Arts such as art, art history, music, theatre, and dance  
**EXPL-EDU:** Teaching, Special Education, and communications  
**EXPL-HHS:** Safety science, sports sciences, fashion merchandising, interior design, hospitality management, family studies, and health fields such as nursing  
**EXPL-BU:** Business such as management, marketing, finance, information technology, or accounting  
**EXPL:** disciplines from across the entire university

**First-Year Courses and Experiences**

Students take part in classes, workshops, and group activities that support them as a new college student. As they meet with an advisor at New Student Orientation, students are encouraged to consider:

- What are some areas you might like to explore, including any major-related coursework?
- What are the areas you do not want to consider?

During the first academic year, students take linked classes that are team-taught by their College Mentor. The classes are designed to coordinate in a way that students can strengthen their skills while navigating the path to selecting the major that best fits their academic profile and professional goals.

All University College Students complete a *Pathways* course in the fall semester that is specific to their exploratory major. This seminar course is designed as an introduction to the disciplines in this area. Students completing the course demonstrate a broad understanding of disciplines associated with their intended college, display fluency with the general vocabulary and terminology relevant to those disciplines, engage in scholarly experiences both within the intended college and across the university, and engage in practical experiences in a self-identified discipline associated with their intended college.

Starting on the right track can make the entire college experience more successful. Crimson Common Hours are designed to expand a student’s university experience. Students are invited to attend Common Hours as part of their *Pathways* course. These one-hour, themed workshops provide students with direction on getting involved academically and socially on campus, explore opportunities for on-campus employment, and promote strong study skills to ensure success.

Students will also complete the Introduction to Higher Education and Learning Strategies courses to assure they are supported at the start of their academic journey.

Many of the courses completed by students in the University College during their first year are Liberal Studies courses that all students complete. The *Pathways* and linked courses count toward the total credits needed to graduate. What students learn in these classes can save time toward graduation. Learning how to navigate higher education and how to tackle college assignments can help a student avoid repeating a course.
Course Descriptions
Credit designation at right of title is expressed in (c) class hours per week, (l) lab or (d) discussion section hours per week, and (cr) number of credits per semester.

**ACCT: Accounting**
Department of Accounting
Eberly College of Business and Information Technology

Note: Except for nonbusiness majors who have met the required prerequisites, students scheduling 300 and 400 courses are expected to have achieved junior standing as described in the Eberly College of Business and Information Technology Academic Policies.

**ACCT 200 Foundations of Accounting** 3c-0l-3cr
Provides a framework in which nonbusiness majors can see how accounting relates to, and reports on, business activities. Introduces the basic financial accounting concepts, principles, and practices applied to the preparation and interpretation of the major financial statements. Takes a business process approach to the information requirements of external decision makers.

**Prerequisite:** Sophomore status (except for accounting majors)

**ACCT 201 Accounting Principles I** 3c-0l-3cr
Introduces the basic financial accounting concepts, principles, and practices applied to the preparation and interpretation of the major financial statements. Includes complete coverage of the accounting cycle, which will satisfy the information requirements of external decision makers. Topics covered are: asset valuation, liability measurement, income determination, and equity activities. Integrated throughout is a discussion of ethical issues and considerations.

**ACCT 202 Accounting Principles II** 3c-0l-3cr
**Prerequisite:** ACCT 201
Introduces traditional managerial accounting concepts and procedures utilized in the organization and processing of accounting information for management decision-making purposes. Topics include managerial accounting and the business environment, cost terms and concepts, cost systems, cost behavior, and cost-volume-profit analysis. Also covers the master budget, standard costing and variance analysis, performance evaluation, responsibility accounting, relevant cost analysis, and decision making.

**ACCT 303 Financial System Analysis** 3c-0l-3cr
**Prerequisite:** Grade of “C” or better in ACCT 202
Focuses on preparation and analysis of financial information for business performance and financial condition decisions. Financial accounting software is integrated throughout to demonstrate financial accounting system design. Basic accounting standards, concepts, and current issues underlying financial reporting are reviewed.

**ACCT 304 Intermediate Accounting I** 3c-0l-3cr
**Prerequisite:** Grade of “C” or better in ACCT 202
Primarily focuses on financial reporting for asset wealth typically found in business environments. Coverage includes recognition and measurement of such assets as cash, receivables, investments, inventories, plant assets, and intangible assets. Present value concepts in financial reporting are also emphasized.

**ACCT 305 Intermediate Accounting II** 3c-0l-3cr
**Prerequisite:** Grade of “C” or better in ACCT 304
Concentrates on financial reporting of creditor and investor claims on business assets in the form of liabilities and equity. Specialized financial reporting topics such as earnings per share, stock options, income tax, pension, and lease accounting are also covered.

**ACCT 311 Cost Accounting** 3c-0l-3cr
**Prerequisite:** Grade of “C” or better in ACCT 202
Studies the aggregation and use of financial information for internal management decision making. Discussions concentrate on cost management system design, cost estimation methods for budget preparation and achievement, cost accumulation methods for manufacturing and service organizations, inventory control procedures, transfer pricing administration, and managerial performance evaluation techniques.

**ACCT 399 Cooperative Education II** 0c-0l-3cr
**Prerequisites:** ACCT 299, completion of 85cr with a cumulative 2.0 GPA, a 2.3 GPA in ACCT 304, 305, and 311 with a grade of “C” or better in each course, and approval of the cooperative advisor
The subsequent course in cooperative education combines classroom theory with practical application through job-related experiences. Students are actively employed in the accounting area in business, industry, government, and a variety of organizations and agencies with a work focus that relates to their academic training and career objectives in accounting.

**ACCT 401 Advanced Accounting** 3c-0l-3cr
**Prerequisite:** ACCT 305

**ACCT 412 Advanced Cost Accounting** 3c-0l-3cr
**Prerequisite:** Grade of “C” or better in ACCT 311
A study of budgets, standard costs, direct and absorption costing, analysis of cost variances, and extensive analysis of various cost control and profit planning programs.

**ACCT 421 Federal Tax I** 3c-0l-3cr
**Prerequisite:** Grade of “C” or better in ACCT 202
Introduces the fundamental concepts of federal taxation, with special emphasis on individuals. Creates an awareness and recognition of the tax consequences involved in financial decision making, with special emphasis on use of professional tax software and Internet resources.

**ACCT 422 Federal Tax II** 3c-0l-3cr
**Prerequisite:** ACCT 421
Introduces the fundamental concepts of federal taxation of corporations, partnerships, estates, and gift transactions. Creates an awareness and recognition of the tax consequences involved in financial decision making, with special emphasis on use of professional tax software, the Internal Revenue Code and Regulations, and Internet research.

**ACCT 431 Auditing** 3c-0l-3cr
**Prerequisite:** ACCT 304
A study of auditing theory and practical application of auditing standards and procedures to the review, testing, and evaluation of accounting controls and to the verification of transactions and balances to express an opinion in an audit report on the fairness of financial statements’ presentation.

**ACCT 432 Forensic and Internal Auditing** 3c-0l-3cr
**Prerequisite:** ACCT 431
Introduces forensic auditing in fraudulent financial reporting and employee theft. Also covers the foundation of internal auditing and operational audits performed by internal auditors.

**ACCT 441 Accounting for Government and Nonprofit Organizations** 3c-0l-3cr
**Prerequisite:** ACCT 305
Presents the views of authoritative professional organizations as to desirable standards of accounting and reporting for governmental and nonprofit entities. Topics include budgeting and budgetary accounts, accounting for various funds, the general fixed assets group of accounts, the financial reporting process, and application of the principles of fund accounting in specific areas.

**ACCT 461 Accounting Systems** 3c-0l-3cr
**Prerequisites:** ACCT 305, 311, IFMG 300
A study of concepts, principles, and procedures of accounting system design, implementation, auditing, and maintenance in relating to system objectives, information requirements, constraints, system elements, and considerations on a computerized basis.
ACCT 475 Accounting for the Oil and Gas Industry 3c-0l-3cr
Prerequisites: ACCT 201 and 202, or equivalent
An introduction to the accounting theory, practices, and reporting requirements for the oil and gas industry. The significance of the industry in a global economy and the impact on International Financial Reporting Standards are addressed.

ACCT 482 Independent Study var-1-3cr
Prerequisite: Prior approval through advisor, faculty member, department chair, and Office of the Provost
Students, with interest in independent study of a topic not offered in the curriculum may propose a plan of study in conjunction with a faculty member. Approval is based on academic appropriateness and availability of resources.

ACCT 493 Internship in Accounting var-3-6cr
Prerequisites: Approval of the Eberly College of Business and Information Technology internship coordinator, department chair, and dean. Must have completed a minimum of 90cr (18cr in ACCT) with a cumulative GPA of 2.75 and 3.00 GPA within the major.
A supervised learning experience that integrates the student’s academic background with practical experience related to the students’ major area of interest. The number of credits earned depends on the nature of the job and the amount of time involved in the internship.

ACE: Adult and Community Education
Department of Professional Studies in Education
College of Education and Communications

ACE 103 Digital Instructional Technology 3c-0l-3cr
Prerequisite: Education major
Introduces freshman preservice teachers to the ever-changing world of digital instructional technology. Learners are exposed to computer-based tools of the trade used by teachers in the delivery and management of instruction. Does not count toward credits needed for communications media major. (Offered as COMM 103 before 2017-18.)

ADVT: Advising and Testing
Department of Disability Access and Advising
Division of Student Affairs

ADVT 170 Career Exploration 1c-0l-1cr
Introduces the theoretical and practical framework with which to explore careers compatible with overall academic skills, aptitudes, and life goals. Students examine the world of work, assess their interests and abilities, and make realistic decisions on academic majors and careers. Notes: (1) Certain sections of this course will be restricted to specific enrollment groups. (2) Cross-listed as DVST 170. These courses may be substituted for each other and be used interchangeably for D/F repeats but may not be counted for duplicate credit.

ANTH: Anthropology
Department of Anthropology
College of Humanities and Social Sciences

ANTH 110 Contemporary Anthropology 3c-0l-3cr
An introduction to the discipline of anthropology: the study of human beings through time and across cultures. This class is organized around select themes that allow students to explore the nature and relevance of anthropological methods, theories, and perspectives. These themes may include, but are not limited to, human origins, evolution and human behavior, gender roles, the links between environment and culture, and social stratification. A strong emphasis on the effects of globalization on human cultures, and the potential for anthropology research to address contemporary issues such as cultural and environmental sustainability, public health, and social equity.

ANTH 211 Cultural Anthropology 3c-0l-3cr
Introduces the major concepts, theories, and research methods of cultural anthropology that are used to study and understand human culture in different parts of the world. An emphasis given to how traditional and nontraditional cultures undergo change as a result of globalization, and how cultural anthropologists study the social, economic, and political consequences that result from integration into an expanding and changing global economy. Topics covered may include, but are not limited to, social organization, economics, power and politics, race and ethnicity, language and communication, technology, religion and ritual, and sex and gender. A wide geographic coverage provides a basis for global comparisons of cultural similarities and differences among human societies.

ANTH 213 World Archaeology 3c-0l-3cr
Archaeology is the study of past cultures and societies through their material remains. Explores the archaeologies of Western and non-Western societies and examines theory, methods, and techniques for investigating, reconstructing, interpreting, preserving, and learning from the past. Examines human cultural chronology from the appearance of human ancestors to the present through an examination of important social, economic, and ideological questions, as well as artifact remains. Includes the origins of food production, social inequality, and civilization.

ANTH 222 Biological Anthropology 3c-0l-3cr
An introduction to the goals and techniques of biological anthropology with an emphasis on primatology, paleoanthropology, genetics, and osteology. Provides a basis for evaluating the role of biology in human behavior.

ANTH 233 Language and Culture 3c-0l-3cr
Focuses on social and cultural functions of language. Particular emphasis given to problems in anthropology with respect to non-Western languages.

ANTH 240 Introduction to Global Health 3c-0l-3cr
Explores the interdisciplinary study of global health and its relevance in our age of globalization as local medical systems are transformed by international integration. Defines the scope of global health and explores the methods of the subfield by utilizing ethnographic, theoretical, anthropological, and sociological readings to critically analyze the various factors that have contributed to the development of this global system. Investigates the relationship between culture and disease, different reproductive health practices, medical ethics, environmental factors in health, and social health disparities. Extends critical analysis to existing health systems across the globe and seeks ways for a positive role in supporting healthy individuals and communities.

ANTH 244 Basic Archaeology 3c-0l-3cr
An introduction to the goals and methods of anthropological archaeology, with particular attention to the analysis of cultural chronology, past lifeways, and cultural process. Provides laboratory experience with artifacts and other archaeological data.

ANTH 250 Human Origins 3c-0l-3cr
Offers a detailed and critical review of what has been learned to date about the origin and evolution of human morphology and behavior. Introduces students to the many human-like species (hominins) that preceded the emergence of our own species (Homo sapiens), and examines the range of methods used by scientists to study human evolution. It also addresses a number of relevant and controversial issues, such as what it means to be human, the extent and nature of present-day human variation, and whether Homo sapiens are still evolving.

ANTH 271 Cultural Area Studies: Africa 3c-0l-3cr
Critically evaluates media headlines about African issues and reaches beyond these headlines to appreciate the complexity and diversity of people’s lives in sub-Saharan Africa and the diaspora. Course readings, assignments, and ethnographic films explore the nature of anthropology research in Africa, the impact of colonialism on social and political life, and the contemporary struggles of people to define their place in local, national, and global communities. Readings include ethnographic, historical, and popular accounts, as well as selections by African writers on issues of contemporary society, such as wildlife conservation, resource extraction, post-conflict development, food aid, and refugee relief and resettlement.

ANTH 272 Culture Area: China 3c-0l-3cr
A broad introduction to Chinese culture and society from an anthropological perspective. Following an overview of China’s geography and history, the
course covers a range of topics pertaining to Chinese traditional culture, including marriage, family, education, governance, gender, religion, language, health, art, and music. Relies on cross-cultural comparisons to help locate Chinese culture and customs within a broader worldwide context. Also encourages students to consider the transformation (rather than elimination) of traditional cultural elements as globalization has come to play an increasingly important role in China’s social and economic development.

ANTH 273 Cultural Area Studies: Southeast Asia 3c-0l-3cr
Introduces the peoples and cultures of mainland and island Southeast Asia. Traces prehistory and the development of indigenous states in the area and impact of world religions, trade, and Western colonialism. Themes include the state, violence, marginality, and gender. Issues include ethnic minority tribal peoples, tropical deforestation, gender, effects of genocide, art and tourism, and migration.

ANTH 274 Cultural Area Studies: Latin America 3c-0l-3cr
An overview of the diverse societies of Latin America from the perspectives of anthropology and Latin American studies. Through a historical, cross-cultural, and comparative approach, it explores the cultural, economic, political, and social life in many societies of this large and diverse region and transnational nature of many of these societies as a result of globalization. Themes covered are: race, ethnicity, and gender as they appear in Latin America, political and economic processes, rural underdevelopment and urbanization, transnational movement and cultures, religion, and indigenous social movements.

ANTH 310 Voyages of Discovery 3c-0l-3cr
Focuses on human diasporas through key explorations and explorers, spanning the period from 40,000 years ago to the late 19th century and touching on every inhabited continent. Through these voyages of discovery, it addresses the diffusion of ideas, the migration of peoples, technological development and its role in culture change, and the historical and cultural circumstances involved in geographic expansion. Cultures from across the globe and throughout time are discussed in terms of their expansion and their responses to the expansion of other cultures. Discusses the historical roots of globalization and its archaeologically visible results.

ANTH 314 Contemporary Native American Cultures 3c-0l-3cr
Introduces Native American cultures of North America north of Mexico from an anthropological perspective with an emphasis on historical and contemporary cultural diversity. Emphasizes the history of culture change and continuity as well as current political, economic, and cultural issues among the Native nations of the United States and Canada.

ANTH 315 North American Archaeology 3c-0l-3cr
Prerequisite: ANTH 110 or 211
A survey of North American prehistory with an emphasis on cultural ecology and technology. Attention is given to all geographic areas north of Mexico, but the focus is on the Eastern Woodlands.

ANTH 316 Anthropology of Religion 3c-0l-3cr
Prerequisite: ANTH 110 or 211
Explores nature, function, and universal characteristics of religion in human society by utilizing cross-cultural approach. Theories concerning religious phenomena serve as topics for discussion.

ANTH 318 Museum Methods 3c-0l-3cr
Prerequisite: ANTH 110 or 211 or 244
Lecture and laboratory course surveying the role of museums as social and educational institutions, types of museums, museum administration, and museum architecture. Procedures for collection, curation, preservation, and storage of anthropological and natural history specimens examined.

ANTH 320 Archaeological Field School 3c-0l-3cr
An introduction to archaeological survey, field excavation, and laboratory processing. Field school students participate in one or more of the ongoing research projects of the IUP archaeology program.

ANTH 323 Mesoamerican Archaeology 3c-0l-3cr
An introduction to the archaeology of Mesoamerica that explores the natural and cultural diversity of the area south of the United States and north of lower Central America. Surveys the history of archaeological research in Mesoamerica and examines some of the specific methods of archaeological research that are unique to Mesoamerican archaeology. The focus is on three areas: the Gulf Coast and the Olmecs, the Valley of Mexico and its long history of settlement from the Tehuacan Valley through the Aztecs, and the southern Highlands and Lowlands inhabited by the Maya, although other regions of Mesoamerica are also discussed.

ANTH 325 Archaeological Lab Methods 3c-0l-3cr
Prerequisite: ANTH 244
A hands-on introduction to the study of artifacts and other cultural materials recovered from archaeological excavations. Experience the specific methods of analysis in archaeological lab settings, focusing on the analysis of stone artifacts, pre-Columbian ceramics, and historic artifacts. Analytic techniques include classification, quantification of attributes, and reporting of the results of the analyses.

ANTH 333 The Archaeology of Early China 3c-0l-3cr
Prerequisite: ANTH 244
An overview of the history, practice, and achievements in archaeology in China, with a focus on early China (up to the Han dynasty). A portion of the course is devoted to those discoveries that have shed light on important developments in China, including its early stone age occupation, the growth of agriculture, the emergence of civilization, as well as the construction of impressive structures (such as the Great Wall and the first emperor’s terracotta army). Also discusses the ways in which Chinese and Western archaeology differ, as well as the role which nationalism and regionalism have played in archaeological research and interpretation in China.

ANTH 340 Anthropology of Aging 3c-0l-3cr
Introduces various experiences faced by elderly people in numerous world societies. Explores the impact of such factors as ethnicity, nationality, race, and class and the processes of cultural change on the lives of people growing old. Comparative, cross-cultural perspectives are stressed.

ANTH 350 Anthropology of Gender 3c-0l-3cr
Explores the primary category of social difference into which humans are universally socialized, which is the gendered nature of women's and men's experiences in the world from an anthropological perspective. An introduction to cross-cultural experiences of gender, and the social constructions of gender. Readings focus on the intersection of race, class, sexuality, and gender, and the impact on gender of technology, colonization, globalization, and the nation-state. Considers the experiences of men and women around the world from various frameworks, including reproductive, social, economic, post-colonial, and post-structural.

ANTH 352 The Anthropology of Human Rights 3c-0l-3cr
Engages the concept of human rights as applied to situations in the contemporary world. Takes an interdisciplinary approach, with an emphasis on anthropology to examine the following principal questions: (1) What are the historical origins of contemporary ideas about human rights? (2) What are some of the foremost human rights situations in the world today? (3) What are the political, economic, and cultural contexts in which human rights abuses occur? (4) What is the role of the committed (i.e., activist) anthropologist? Focuses on the interplay between the abuse of human rights, power, and culturally constructed difference, such as ethnicity and gender. Extends contemporary interpretations to existing social and political problems around the world to seek ways in which anthropologists can have a positive role to play in finding solutions to those problems.

ANTH 360 Applied Anthropology 3c-0l-3cr
Applied anthropology focuses on the anthropologist as an agent of social change and bridges the gap between theories of cultural behavior and the policies that affect contemporary cultures. Examines the historical role of anthropologists in early public administration and then examines at length the work of contemporary applied anthropologists in programs of international economic development (health, agriculture, and education), in domestic human service planning and delivery, in cultural resource preservation, and in their role as advocates for unempowered minorities.

ANTH 365 Native North American Religions 3c-0l-3cr
An introduction to the indigenous religions of North America and to the peoples who practice these rich and varied approaches to the sacred. Not only examines major religious themes and dimensions (myth, ritual, ethics, etc.), but also includes a historical perspective on Native North American lifeways. This perspective involves discussion of the clash with Euro-American values and contemporary native responses to social crisis and change. (Also offered as RLST 365; may not be taken for duplicate credit.)

**ANTH 370 Latinos and Diasporas** 3c-0l-3cr
Introduces students to the global and local dimensions of the changing Latino communities in the United States and examines the communities’ multiple connections and dynamic interactions with Latin American diasporas. Toward this end, the course covers (1) theories on transnational communities, diasporas, the state, and citizenship; (2) Latino cultures and geography; (3) Latin American immigration and labor migration to the United States; and (4) the impact of Latin American diasporic networks on Latino and non-Latino communities. (Cross-listed as LAS 370.)

**ANTH 415 Cultural Resource Management** 3c-0l-3cr
**Prerequisite:** ANTH 244 or instructor permission
Provides an understanding of how cultural resources are being preserved and managed under current American laws and regulations with particular emphasis on historic properties, such as historic buildings and archaeological sites. Case studies and field trips are incorporated so that students gain a thorough understanding of key problems and issues in historic preservation and cultural resource management.

**ANTH 420 Environmental Anthropology** 3c-0l-3cr
**Prerequisite:** ANTH 110 or 211
Introduces environmental anthropology, the study of the relationship between the natural environment and human social and cultural life. Illustrates the importance of understanding human-environment interactions in studying contemporary issues in global development, and in investigating the past. Explores major analytical and methodological approaches in environmental anthropology, including ecological anthropology, ethnecology, political ecology, and environmental justice. (Titled Cultural Geography before 2016-17.)

**ANTH 425 Archaeological Theory and Research Design** 3c-0l-3cr
**Prerequisite:** ANTH 244, 325
Reviews the broad range of field, analytical, and interpretive methods adopted by archaeologists over the past century and guides students through the design and implementation of a research project of their own. Discussed against the backdrop of the discipline’s constantly shifting theoretical setting, this survey also prepares students for the task of critically assessing published research conducted by other archaeologists and locating such research within this dynamic theoretical landscape.

**ANTH 430 Anthropology of Food** 3c-0l-3cr
Focuses on the influences of biology, culture, political economy, and history on what and how peoples of the world eat. Readings, lectures, films, and projects link the dietary implications of foraging, crop domestication, state formation, and industrial capitalism to food choices and health. Examines various sociocultural practices relating to the uses of food in marking social difference, maintaining social relationships, and dealing with cultural constructions of health, illness, and the body. Considers the influence of the agricultural revolution, colonization, and globalization on the transformation of food meanings, practices, and availability.

**ANTH 444 Medical Anthropology** 3c-0l-3cr
**Prerequisite:** Any of the following: ANTH 110, ANTH 211, SOC 151 or SOC 161 or permission
Focuses on the study of human confrontation with disease and illness and on the adaptive arrangements made by various human groups for dealing with these dangers. Health and disease are viewed from a broad array of micro and macro perspectives, e.g., evolutionary, ecological, and psychosocial. For nursing and social work students as well as social and biological science students.

**ANTH 450 Health Disparities** 3c-0l-3cr

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**Prerequisite:** SOC 151 or ANTH 211 or with instructor permission
Explores health status and healthcare disparities across groups based on race/ethnicity, gender, socioeconomic status/social class, nativity, refugee and citizen status, and other cultural and demographic characteristics. Uses a social determinants of health perspective to consider how social, cultural, environmental, political, and economic conditions produce unequal and inequitable health outcomes, with special focus on disadvantaged populations. Addresses agency and empowerment of populations seeking and accessing health and health care. Includes different levels of public health interventions that can improve health outcomes, better calibrate access to health care, and improve health equity within populations. (Also offered as SOC 450; may not be taken for duplicate credit.)

**ANTH 456 Ethnographic Research Methods** 3c-0l-3cr
**Prerequisite:** 9cr in ANTH
Provides a background in qualitative and quantitative techniques used in anthropological research. Concentrates on the ethics of research with people, formulation of hypotheses, design and use of appropriate research techniques, and data analysis. Emphasizes development of field notes, interviewing techniques, developing genealogies, and participant observation.

**ANTH 460 Ethnographic Field School** 6c-0l-6cr
**Prerequisite:** ANTH 456 or instructor permission
Ethnographic research training in the field. Emphasizes the application of qualitative research methods, the recording of data in research journals and the maintaining of field diaries, the categorizing and organizing of data, and the writing of research reports.

**ANTH 470 Environmental Archaeology** 3c-0l-3cr
**Prerequisites:** ANTH 244 or GEOS 201 or permission of the instructor
Explores past human interactions with the natural environment, including plants, animals, climate, and geologic landscapes. Incorporates hands-on practice in the scientific techniques used to reconstruct ancient environments, including analysis of pollen, sediments and soils, and microfauna. Uses computer software to graph and interpret data sets. Illustrates archaeological case studies designed to illustrate both how environmental conditions and natural hazards (e.g., volcanoes, tsunamis) impacted past human populations, as well as how people have altered and modified their environment through time. Examines these interactions using a diachronic and comparative perspective, from the evolution of hominins millions of years ago to the recent phenomenon of the Anthropocene.

**ANTH 480 Anthropology Seminar** var-1-3cr
**Prerequisite:** 9cr in ANTH or permission
A seminar approach to the integration of the fields of anthropology. Assists the advanced student in understanding the nature of anthropology, the major theoretical issues, and the history of intellectual development.

**ANTH 481 Special Topics** var-1-6cr
Special topics courses are offered on an experimental or temporary basis to explore topics that are not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 481 are primarily for upper-level undergraduate students.

**ANTH 482 Independent Study** var-1-3cr
**Prerequisite:** Prior approval through advisor, faculty member, department chair, dean, and Office of the Provost
Students with an interest in independent study of a topic not offered in the curriculum may propose a plan of study in conjunction with a faculty member. Approval is based on academic appropriateness and availability of resources.

**ANTH 483 Honors Thesis** var-1-6cr
**Prerequisites:** Admission to departmental honors program; prior approval through advisor, faculty member, department chair, dean, and Office of the Provost
An intensive, focused study involving independent research culminating in a written thesis approved by a thesis director and two faculty readers/committee members. May be taken more than once to a maximum of 6cr.
ANTH 484 Specialized Methods in Archaeology 3c-0l-3cr
An opportunity to learn specialized techniques and approaches presently in use in archaeology. In any one semester, the course concentrates on one of a range of possible themes, including lab methods, field methods, statistical methods, computer applications, or text-based approaches. The specific topic varies but focuses on instructing in the mechanics of the selected technique, its application to real archaeological problems, and the interpretation of the results. May appeal to students from other disciplines who wish to gain applied expertise in a topic that is relevant to their own field of study. Interested students should contact the instructor to find out which topic will be taught in any one semester. May be repeated for credit under a different methods title.

ANTH 486 Historic Artifacts 3c-0l-3cr
Focuses on techniques for collecting, analyzing, and interpreting data from historic period (1500 to present) artifacts commonly found on North American archaeological sites. Analytic techniques, including classification, quantification of attributes, relating artifact patterns to human activities, and statistical interpretation are taught in a hands-on environment. Outlines the history of technology as a means to identify the age and use of artifacts. Considers that all objects occurred as a thought before they were made material and how to work backwards from the material to the thought.

ANTH 487 Geoarchaeology 3c-0l-3cr
Prerequisite: ANTH 244 or GEOS 201, or instructor permission
Surveys geological methods and techniques used to investigate archaeologi- cal research questions. Includes sedimentary and geomorphic processes affecting the formation and preservation of archaeological sites; methods of paleoenvironment and paleoclimate reconstruction, and radiometric dating techniques. Illustrates the importance for archaeologists to understand the geological processes that affect archaeological sites—before, during, and after people have been there. Understanding these processes is crucial to accurately reconstructing the dynamics of human behavior.

ANTH 488 Geophysical Applications in Archaeology 3c-0l-3cr
Provides the methodological and technological knowledge to apply various geophysical systems used in archaeological investigations. These systems may include, but are not limited to, ground-penetrating radar, magnetometry, electrical resistivity, conductivity, and susceptibility.

ANTH 489 Prehistoric Technologies of Eastern North America 3c-0l-3cr
Introduces the prehistoric technologies of Eastern North America. Focuses on the material culture commonly recovered from pre-European Contact Native American archaeological sites, including stone, ceramic, bone, and native metal artifacts. Includes analytical techniques of classification, quantification, and interpretation linking artifacts to human behavior.

ANTH 490 Applied Spatial Methods in Archaeology 3c-0l-3cr
Prerequisite: ANTH 244 or instructor permission
Introduces methods used within archaeology to examine the spatial relationships between archaeological artifacts, features, and sites at various scales. Explores the strengths and weaknesses of various spatial methods in archaeology. Provides students with the ability to become knowledgeable consumers of these methods in future research and working environments.

ANTH 491 Zooarcheology 3c-0l-3cr
Introduces the archaeological specialty of zooarcheology, which is the study of human-animal interactions through the analysis of archaeological remains from archaeological sites. Explores the basics of vertebrate osteology through lectures and hands-on exercises, as well as the nature of various types of zooarchaeological interpretation such as studies of hunting and butchering practices, dietary importance, seasonality, domestication, paleopathology, and past environment.

ANTH 492 Soil Science: Archaeological and Geoenvironmental Applications 3c-0l-3cr
Introduces the ways in which archaeologists and geoscientists define, recognize, examine, and interpret soils in both the field and the laboratory. Examines (1) how the interactions of landform, topography, climate, and biota result in patterns of soil development and the distribution of soils that we observe within the landscape; (2) the significance of soils to other disciplines, including archaeology, quaternary geology, and geoenvironmental science; and (3) how the physical, chemical, and biological properties of soils are influenced by human activities, both past and present. Includes field trips that may occur on weekends. (as GEOS 492; may not be taken for duplicate credit.)

ANTH 493 Internship in Anthropology var-3-12cr
Prerequisite: Instructor permission
Offers practical experience in any of the specialized fields of anthropology (physical, social-cultural, archaeology, or linguistics). Each student develops objectives in consultation with a particular departmental faculty member who is supervising the internship. Detailed field notes and a major paper based on the experience are required.

APMU: Applied Music
Department of Music
College of Fine Arts

APMU Applied Music (Major Area) Instrument/Voice I-VIII var-2 or 4cr
Prerequisites for initial semester of study: Audition and acceptance to the area of concentration
Prerequisite for subsequent semesters: Grade of “C” or better in the previous semester of study
Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

APMU Applied Music (minor area) Instrument/Voice I-VIII var-1cr
Prerequisites for initial semester of study: Audition and placement
Prerequisite for subsequent semesters: Grade of “C” or better in the previous semester of study
Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list:

APMU 101, 151, 201, 251, 301, 351, 401, 451 Piano I-VII
APMU 102, 152, 202, 252, 302, 352, 402, 452 Organ I-VII
APMU 103, 153, 203, 253 Harpsichord I-VIII
APMU 104, 154, 204, 254, 304, 354, 404, 454 Harp I-IV
APMU 105, 155, 205, 255, 305, 355, 405, 455 Voice I-VIII
APMU 107, 157, 207, 257, 307, 357, 407, 457 Viola I-VIII
APMU 108, 158, 208, 258, 308, 358, 408, 458 Cello I-VIII
APMU 109, 159, 209, 259, 309, 359, 409, 459 String Bass I-VIII
APMU 110, 160, 210, 260, 310, 360, 410, 460 Flute I-VIII
APMU 111, 161, 211, 261, 311, 361, 411, 461 Clarinet I-VIII
APMU 112, 162, 212, 262, 312, 362, 412, 462 Oboe I-VIII
APMU 113, 163, 213, 263, 313, 363, 413, 463 Bassoon I-VIII
APMU 114, 164, 214, 264, 314, 364, 414, 464 Saxophone I-VIII
APMU 116, 166, 216, 266, 316, 366, 416, 466 French Horn I-VIII
APMU 117, 167, 217, 267, 317, 367, 417, 467 Trombone I-VIII
APMU 118, 168, 218, 268, 318, 368, 418, 468 Euphonium I-VIII
APMU 119, 169, 219, 269, 319, 369, 419, 469 Tuba I-VIII
APMU 120, 170, 220, 270, 320, 370, 420, 470 Percussion I-VIII
APMU 121, 171, 221, 271, 321, 371, 421, 471 Guitar I-VIII
APMU 125, 225, 325, 425 Composition I-V
APMU 126 Piano Proficiency Level I 0c-0l-0cr
Corequisite: MUSC 154 or APMU 151
Adjudicates the performance of students in piano (on a pass/fail basis) as
.partial fulfillment of the requirements for the BA, BFA, and BSEd music degree programs. In order to pass the Level I jury, students are expected to attain a basic level of piano proficiency. (Offered as APMU 124 before 2016-17.)

APMU 127 Piano Proficiency Level II 0c-0l-0cr
Corequisite: APMU 251
Adjudicates the performance of students in piano (on a pass/fail basis) as partial fulfillment of the requirements for the BSEd—Music program. In order to pass the Level II jury, students are expected to attain an intermediate level of piano proficiency. (Offered as APMU 123 before 2016-17.)

APMU 227 Capstone Jury: Secondary Instrument 0c-0l-0cr
Prerequisite: Must be taken during the fourth semester of APMU Applied Music (secondary instrument)
Adjudicates the performance of students in a secondary performance area (on a pass/fail basis). To pass the secondary jury, students are expected to perform at a functional level. All students who undertake four semesters of secondary applied study must complete a capstone jury, but those in the BSEd—Music program with a voice concentration take APMU 127 in lieu of 227.

APMU 427 Capstone Jury: Primary Instrument 0c-0l-0cr
Prerequisite: Must be taken during the final semester of APMU Applied Music (primary instrument) required by program
Adjudicates the performance of students in their respective primary performance area (on a pass/fail basis) as partial fulfillment of the requirements for the BA, BFA, and BSEd music degree programs. To pass the primary jury, students are expected to perform at a professional level. (Offered as APMU 122 before 2016-17.)

APMU 480 Wind and Percussion Pedagogy 2c-0l-2cr
Prerequisites: Completion of six semesters of APMU at the 4cr level; concurrent enrollment with seventh or eighth semester of APMU, or instructor permission
The study of specific techniques of, and pedagogical approaches for, woodwind, brass, or percussion instruments in both individual and classroom situations.

ARED: Art Education
Department of Art and Design
College of Fine Arts

ARED 101 Introduction to Art Education 3c-0l-3cr
Field experience with public p-12 schools, museums, and community art programs
Prerequisite: Art Education major or Instructor Permission
Introduces theoretical and contextual foundations that support contemporary art education theory and practice in a variety of settings including schools, museums, and community-based programs. Serves as the first of a sequence of courses in the Art Education major and should be taken as the second semester of the first year of admission to the major. Provides a foundation for the rest of the courses in the major. Conducted in a participatory seminar format that includes selected field experiences with public P-12 schools, museums, and community art programs.

ARED 215 Issues in Art Education 3c-0l-3cr
Prerequisite: ARED 101
An overview of issues in the field of art education. Provides students with foundational texts and theories that constitute the field of art education as it exists in schools, community-based contexts, and museums. Examines multiple populations of learners including special populations through discussion, direct instruction, and collaborative projects. Synthesizes contemporary art education as a dynamic scholarly field.

ARED 281 Special Topics var-1-3cr
Prerequisite: As appropriate to course content
Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identifier no more than three times. Special topics numbered 281 are offered primarily for lower-level undergraduate students.

ARED 317 Art in K-6 Programs 3c-0l-3cr
Prerequisite: Admission to Step 1 of the 3-Step Process
Examines children’s artistic development in relation to teaching art in K-6 settings. Explores types of art programs, planning, motivation, content, and evaluation of art lessons for all students in elementary art classes, including those with special needs. Students apply theories and knowledge to the design of instructional curricular units, units, and lessons, as well as practice and critique the delivery of instruction.

ARED 318 Art in 7-12 Programs 3c-0l-3cr
Prerequisite: Admission to Step 1 of the 3-Step Process
Explores a number of practical and theoretical approaches related to the teaching of studio art in 7-12 public school settings. Of primary interest is the potential for application of college-level art theories and techniques, alongside with exploring a variety of research writing techniques. Also provides information regarding the teaching of art with special needs populations.

ARED 320 Art Criticism and Aesthetics in K-12 Programs 3c-0l-3cr
Prerequisites: ARED 315 (minimum C grade) and art education major
Secure the knowledge and skills necessary to teach a program of comprehensive art that includes the discipline of art criticism. Establishes theoretical frameworks for writing intelligently and talking about art with students from a critical perspective. Also provides opportunities for developing curricular and pedagogical materials appropriate for teaching art K-12.

ARED 321 Art History Inquiry for K-12 Art Programs 3c-0l-3cr
Prerequisites: ARED 315 (minimum C grade) and art education major
Explores methods, media, and activities that integrate art history content into the school art curriculum. Students plan and execute lessons that are appropriate at various grade levels and that emphasize art history and knowledge of artistic diversity worldwide. Students prepare one unit on a selected theme, in addition to other written or artistic assignments. Preparation of art history-related projects and instructional materials for classroom use are also components.

ARED 322 Studio Inquiry for K-12 Programs 3c-0l-3cr
Prerequisites: ARED 315 (minimum C grade) and art education major
Art processes, media, and techniques suitable for teaching art to elementary and secondary students are examined and researched as modes of learning and creating. A major focus is on developing curricular and pedagogical materials relating to the theory and practice of teaching art, as well as integrating studio experiences with art criticism, art history, and aesthetics. Students apply demonstrated techniques and processes to sample projects and combine these with research into a portfolio for teaching studio art within comprehensive art lessons.

ARED 323 Community-Based and Museum Art Education 3c-0l-3cr
Prerequisite: ARED 315
Examines theories, issues and practices related to art education within community-based and museum settings. Includes art and children’s museums, community art programs, after-school programs, public and collaborative art programs, and emerging organizations, programs, and resources. In these settings, art educators work with a diversity of learners that may include children, adults, community activists and cultural workers, as well as with a diversity of art processes and media. Examines relationships between theory and practice and collaborates with community and museum-based organizations.

ARED 324 Special Populations in Art Education 3c-0l-3cr
Prerequisite: ARED 315
Focuses on special populations as learners in multiple art education contexts including schools, community-based programs, and museums. Includes, but is not limited to, learners with special needs, English Language Learners, and learners across the life span. Examines Universal Design in education (UD), therapeutic art education contexts, and curriculum design for multiple learners.
ARED 482 Independent Study  
Prerequisite: Prior approval through advisor, faculty member, department chair, dean, and Office of the Provost

Students with interest in independent study of a topic not offered in the curriculum may propose a plan of study in conjunction with a faculty member. Approval is based on academic appropriateness and availability of resources.

ARHI: Art History  
Department of Art and Design  
College of Fine Arts

ARHI 100 Arts of the 20th Century  
Prerequisite: Art majors and minors only

A study of art in the US during 1900-1960 in light of historical events and in the broader context of political, philosophical, religious, and social developments, including women and underrepresented groups as subjects, creators, and patrons of the arts. An introductory course for incoming art majors. Primary focus on painting, photography, and film.

ARHI 101 Introduction to Art  

Introduces the elements of visual expression, past and present. Students gain an understanding of the processes of art making and the motivations and goals of artists across time. Students learn how various factors, including religion, politics, and literature, affect the creation of the arts of any given period or region.

ARHI 205 Ancient to Medieval Art  

Examines a selection of art and architectural forms from the Prehistoric period through the late Middle Ages, in relation to the political, social, economic, and religious forces that have shaped Western cultures.

ARHI 207 Renaissance through Modern Art  

Studies art from the Renaissance through the Modern periods in Western Europe in light of historical events and in the broader context of political, philosophical, religious, and social developments, including women and underrepresented groups as subjects, creators, and patrons of the arts. Issues of exoticism, Orientalism, and colonialism are discussed.

ARHI 224 Introduction to Asian Art  

Examines a selection of art and architectural forms from China, Japan, and India, ancient and modern. Students are introduced to religious and secular sculpture, painting, and ceramics, as well as the philosophical, political, and social forces that prompted their creation.

ARHI 321 History of World Ceramics  

Analyzes the development of ceramics from its beginnings to the present. Emphasizes the historical and social context and changing aesthetics of ceramic production, with special focus on the pottery of East Asia and Islamic cultures.

ARHI 407 Medieval Art  

Art and architecture of Europe during the Middle Ages, beginning with early Christian and Byzantine and concluding with the Gothic period. Dual listed for graduate credit as ARHI 507.

ARHI 408 Italian Renaissance Art  

Italian art from 1400s through 1650 and Mannerist movement. Special attention paid to great masters of the period. Dual listed for graduate credit as ARHI 508.

ARHI 409 Baroque and Rococo Art  

A general survey of art from 1575 to 1775, includes architecture, sculpture, painting, and other arts. Dual listed for graduate credit as ARHI 509.

ARHI 410 19th-Century European Painting  
Prerequisite: Junior standing or instructor permission

Surveys the history of Western painting from the late 18th century to the turn of the 20th. The styles and movements covered range from neo-classicism to romanticism, realism, the Pre-Raphaelite painters, impressionism, symbolism, and post-impressionism. French painting is most heavily represented. Activities include lecture mixed with discussion of readings, debates about issues, practice in “reading” images, and others.

ARHI 411 20th-Century European Art  

Studies 20th-century painting, sculpture, photography, and film in France, Germany, and Italy in light of historical events and in the broader context of political, philosophical, religious, and social developments, including women and underrepresented groups as subjects, creators, and patrons of the arts.

ARHI 412 Classical Art  

A historical survey of the architecture, painting, sculpture, and minor arts of the classical period of Greece and Rome, including the Minoan, Mycenaean, and Etruscan cultures.

ARHI 413 Senior Seminar  

Helps students develop adequate vocabularies and methods to be used in discussion and criticism of works of art.

ARHI 417 Byzantine Art  
Prerequisite: ARHI 205 or instructor permission

Investigates the art and architecture produced in the Byzantine Empire, with a concentration on the years between 324, the year Constantine founded Constantinople, and 1453, the date the Turks conquered the city. Consisting of lectures, discussions, videos, and field trips, the course emphasizes cross-cultural contacts between Byzantium, Islam, and the West.

ARHI 418 African Art  

Explores the aesthetics and meanings of African art through a historically and culturally based survey of art from selected African cultures. Examples of sculptures, masks, and other ritual objects, tools and utilitarian objects, clothing, jewelry and adornment, painting, and architecture from across the continent are studied. Philosophical and religious beliefs, socioeconomic, historical, and political forces are examined as to how they have affected the creation of art in traditional and contemporary Africa. Connections between the visual arts and the other fine arts are an integral part of the study as well.

ARHI 420 Art Museums, Art Libraries, and Visual Resources  
Prerequisite: ARHI 100, 101, or instructor permission

Explores and introduces professions in art museums, art libraries, and visual resources. Includes a brief history of art collecting and an introduction to the major art museums in the United States, including their origins and current status. Presents past and contemporary art practices in museums and special collection environments, including the essential functions of art libraries, visual resources collections, and curatorial practices. Covers current challenges and controversies facing art museums and collections. Provides relevant practical experiences including field trips and guest lectures.

ARHI 423 Art of Japan  

Introduces the history and aesthetics of Japanese art, from antiquity to the present. Lectures focus on major works of painting, sculpture, architecture, prints, ceramics, and other works from antiquity to present. Close attention is paid to their historical contexts and underlying themes. These include religious influences, the imperial court, the tea ceremony, and modern life. The interaction of Japan with its neighbors is also considered.

ARHI 424 Art of India and Southeast Asia  

Analyzes the arts of India and Southeast Asia, past and present. Examines representative examples from major periods, emphasizing the cultural, political, and/or religious context of the work.

ARHI 425 Arts of China  

Surveys art selected from the five millennia of Chinese art and culture. Examines sculpture, architecture, and painting from the Neolithic period through the 20th century. Issues of religion, patronage, and popular culture are included.

ARHI 427 Japanese Narrative Art  

Introduces the Japanese tradition of presenting narratives pictorially. Works considered include historical and fictional stories imaged in screens and scrolls, as well as modern and contemporary films which continue this
visual idiom.

ARHI 481 Special Topics var-1-3cr
Prerequisite: As appropriate to course content
Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 481 are primarily for upper-level undergraduate students.

ARHI 482 Independent Study var-1-3cr
Prerequisite: Prior approval through advisor, faculty member, department chair, dean, and Office of the Provost
Students with interest in independent study of a topic not offered in the curriculum may propose a plan of study in conjunction with a faculty member. Approval is based on academic appropriateness and availability of resources.

ARHI 493 Internship var-3-12cr
For art history majors who wish to receive practical experience working within professional situations that relate to the student’s artistic and occupational goals.

ART: Art (Studio)
Department of Art
College of Fine Arts

ART 111 Figure Drawing 0c-6l-3cr
A foundation course in drawing, including a study of the structure of drawing and composition with a variety of media and subject matter.

ART 112 Fundamentals of Drawing 0c-6l-3cr
Seeks to integrate basic principles and fundamentals of drawing and design.

ART 113 Three-Dimensional Design 0c-6l-3cr
Basic elements and principles of design are studied. A course in design in three dimensions.

ART 114 Color and Two-Dimensional Design 0c-6l-3cr
Focuses on the consistent properties of color and the manner in which two-dimensional design can be organized. Specific attention is given to the complex interactions of color within two-dimensional design.

ART 211 Painting 0c-6l-3cr
An introduction to painting in which a variety of materials, techniques, and approaches are explored.

ART 213 Woodworking: Function and Form 0c-6l-3cr
Involves the study of woodworking and furniture design as it relates to the individual designer-artist. Students experience a formal background in both woodworking technique and the application of design.

ART 214 Ceramics 3c-3l-3cr
Introduces the processes, techniques, and aesthetics of the ceramics medium with an examination of historical and contemporary approaches. Emphasis is placed on basic hand building methods and techniques.

ART 215 Sculpture 0c-6l-3cr
An introduction to sculpture with an emphasis on study of form as well as visualizing in the third dimension.

ART 216 Jewelry and Metals 0c-6l-3cr
Prerequisite: ART 113 or instructor permission
An introduction to jewelry and metals with an emphasis on the design and creation of functional and nonfunctional art objects. Basic processes of metal fabrication is the focus.

ART 217 Print Media 0c-6l-3cr
An introduction to basic techniques of print media including planographic, relief, and electronic processes.

ART 218 Introduction to Graphic Design 0c-6l-3cr
Prerequisites: ART 112, 114
A survey of graphic design, exploring creative problem-solving techniques.

ART 281 Special Topics var-1-3cr
Prerequisite: As appropriate to course content
Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 281 are offered primarily for lower-level undergraduate students.

ART 313 Intermediate Ceramics: Wheel Throwing 3c-3l-3cr
Prerequisite: ART 214 with a grade of “C” or better
Focuses on structured problems in the ceramic medium designed to encourage the student to apply basic forming skills experienced at the introductory level with emphasis on wheel-thrown components and practice. Pottery shapes requiring singular and multiple-form components are investigated along with kiln design and firing, as well as high-fire clay and glaze calculation as both theory and practical experience.

ART 316 Intermediate Jewelry and Metals 0c-6l-3cr
Prerequisite: ART 216
Technical expertise is further developed, gradually shifting from formal techniques to experimentation and individual expression. Various techniques, including casting, stone setting, and an introduction to smithing, are explored.

ART 352 Intermediate Ceramics: Mold Making 3c-3l-3cr
Prerequisite: ART 214 with a grade of “C” or better
Focuses on structured problems in the ceramic medium designed to challenge the student to apply basic forming skills experienced at the introductory level with emphasis on mold making and hand-building techniques and practice as applied to sculptural forms with emphasis on content and analysis. Personal and creative interpretation of assignments with continued exploration of kiln firing, as well as low-fire clay and glaze formulation.

ART 355 Intermediate Graphic Design I 0c-6l-3cr
Prerequisite: ART 218
An intermediate-level study in graphic design focusing on digital illustration, complex typography, and publication design. Studio experience will focus on current professional 2-D digital illustration software.

ART 356 Intermediate Graphic Design II 0c-6l-3cr
Prerequisite: ART 218
Recommended Prerequisite: ART 355
An intermediate-level study in graphic design, researching publication design, grid systems, and multipage design. Studio experience will focus on current professional software used for publication design.

ART 400 Professional Practices 3c-0l-3cr
Prerequisites: BFA or BA studio majors only, senior status
Professional practices for the visual artist. Major issues may include the development of a thesis exhibition, résumé development, an artist’s professional image, portfolio development, marketing skills, career opportunities, and grant writing.

ART 421 Advanced Drawing 0c-6l-3cr
Prerequisites: ART 111, 112
Meets the needs of the student who has some background in the field. Problems of composition, two- and three-dimensional relationships, and surface are on an individual basis.

ART 425 Critical Practice 3c-0l-3cr
Prerequisites: Junior, senior, or graduate status; art majors only
Assists advanced students to acquire art criticism concepts and skills. Through written discourse, students engage in both the discourse of art making and contemporary theories.

ART 448 Brand Design 1.5c-2l-3cr
Prerequisite: ART 214
An integrated study of branding concepts in marketing and art includ-
ing aesthetics in commercial art, design of brand and corporate identity trademarks, theories of brand marketing and business strategy, customer touchpoints in brand communication, and branding as a corporate strategy. (Also offered as MKTG 448; may not be taken for duplicate credit.)

**ART 451 Advanced Woodworking: Function and Form** 0c-6l-3cr
Prerequisite: ART 213
Offers advanced training and skills involving the study of contemporary furniture design and woodworking. Emphasizes a technical and aesthetic point of view.

**ART 452 Advanced Ceramics** 0c-6l-3cr
Prerequisite: ART 214
Continued exploration of the field of ceramic production, along with kiln firing and glaze formulation.

**ART 453 Advanced Sculpture** 0c-6l-3cr
Prerequisite: ART 215
An opportunity to pursue independent study in sculpture. Materials and processes are individually chosen and the work related to broadening concepts.

**ART 454 Advanced Painting** 0c-6l-3cr
Prerequisite: ART 211
Individual experimentation and exploration by the painter and investigation of the various technical approaches.

**ART 455 Advanced Graphic Design I** var-3-6cr
Prerequisites: ART 218, 355; instructor permission required for 6cr studio
Recommended Prerequisite: ART 356
Introduces three-dimensional modeling and rendering for illustration and animation. Studio experience focuses on current professional 3-D software.

**ART 456 Advanced Graphic Design II** var-3-6cr
Prerequisites: ART 218, 355; instructor permission required for 6cr studio
Recommended Prerequisites: ART 356, 455
An exploration of web page and interactive design. Studio experience will focus on current professional web and interactive software.

**ART 457 Advanced Print Media** var-3-6cr
Prerequisites: ART 217, permission required for 6cr studio
Student elects to study a print media process or processes in greater depth and works toward developing personal visual language and techniques ranging from the traditional to the nontraditional.

**ART 460 Advanced Jewelry and Metals** 0c-6l-3cr
Prerequisite: ART 216 or permission
Technical expertise is further developed to challenge each individual to understand the relationship of concept to the completed object, whether it is jewelry, holloware, or a nonfunctional object. Various techniques are investigated in pursuit of a personal expression and aesthetic. May be repeated for credit.

**ART 481 Special Topics** var-1-3cr
May provide an in-depth study of a narrowly defined area of the discipline. Subject matter may change with repeated offering of the course. May be repeated for credit.

**ART 482 Independent Study** var-1-3cr
Prerequisite: Prior approval through advisor, faculty member, department chair, dean, and Office of the Provost
Students with interest in independent study of a topic not offered in the curriculum may propose a plan of study in conjunction with a faculty member. Approval is based on academic appropriateness and availability of resources.

**ART 493 Internship** var-3-12cr
For art majors who wish to receive practical experience working within professional situations that relate to the student’s artistic and occupational goals.

**ASIA: Asian Studies**
College of Humanities and Social Sciences
BIOC 301 Foundations of Biochemistry 3c-0l-3cr
**Prerequisites:** BIOC 202 and a grade of “C” or better in CHEM 332
A foundation in biochemical principles emphasizing the structure/function relationships of proteins, carbohydrates, nucleic acids, and lipids. Catalysis by enzymes, including reaction mechanisms, kinetics, and regulation of activity are considered in detail. The structure of biological membranes and transport of both solutes and signals across membranes are explored. Assumes an understanding of eukaryotic cell structure and organic chemistry of major functional groups.

BIOC 311 Biochemistry Laboratory I 0c-4l-1cr
**Prerequisites:** BIOC 202, CHEM 332
A companion to BIOC 301, including experiments in photometry, enzyme kinetics and purification, lipid isolation and characterization, electron transport in respiration and photosynthesis, and use of radioisotopes.

BIOC 401 Laboratory Methods in Biology and Biotechnology 2c-4l-3cr
**Prerequisite:** CHEM 351 or BIOC 301
Theory and practice in a number of major analytical and preparative techniques currently in use in physiology, molecular biology, and biotechnology. (Also offered as BIOC 401; may not be taken for duplicate credit.)

BIOC 402 Advanced Biochemistry 3c-0l-3cr
**Prerequisite:** BIOC 301
Examination of biochemical processes with a focus on metabolism. Central pathways considered in detail, including regulatory mechanisms and hormonal signaling. Other selected processes and integration of mammalian metabolism are explored. Assumes an understanding of concepts relating to structure/function relationships for biomolecules, biological membranes, and signaling included in BIOC 301.

BIOC 412 Advanced Biochemistry Laboratory 0c-4l-1cr
**Prerequisite:** BIOC 311
A companion to BIOC 402, including experiments in membrane characterization, properties of amino acids, isolation and function of nucleic acids, and synthesis of proteins and nucleic acids.

BIOC 480 Biochemistry Seminar I 1c-0l-1cr
**Prerequisites:** BIOC 402, 412
A discussion of recent trends in biochemical thought. Oral and written reports on assigned readings, and library or laboratory research. Guest lecturers. The combination BIOC 480-490 counts as one writing-intensive course.

BIOC 481 Special Topics in Biochemistry var-1-3cr
**Prerequisite:** BIOC 402 or CHEM 351
A lecture-discussion course of recent biochemical topics or those of unique interest. Topic and instructors to change annually.

BIOC 482 Independent Research in Biochemistry var-1-3cr
**Prerequisites:** BIOC 402, 412, permission by department chair
Student conducts a research project in any area of biochemistry. Work supervised by faculty. Does not involve regular class or lab hours. Enrollment by permission only.

BIOC 490 Biochemistry Seminar II 1c-0l-1cr
**Prerequisites:** BIOC 402, 412, 480
A discussion of recent trends in biochemical thought. Oral and written reports on assigned readings, and library or laboratory research. Guest lecturers. The combination BIOC 480-490 counts as one writing-intensive course.

BIOL 103 Life on Earth 3c-2l-4cr
**Prerequisite:** Non-Biology Department majors/minors only
A basic introduction to the concepts of ecology, biological diversity, and evolutionary biology. Students learn fundamental ecological concepts about how living things interact with each other and the physical environment and apply these to understanding the origin of the tree of life and environmental problems facing populations, communities, and ecosystems. Students also learn about mechanisms and consequences of evolution. (Does not count toward BIOL electives, controlled electives, or ancillary sciences for Biology Department majors and minors.)

BIOL 104 Human Biology: How the Human Body Works 3c-2l-4cr
**Prerequisite:** Non-Biology Department majors/minors only
A basic introduction to the human body using disease as a mechanism for examining how the human body functions. Students explore the internal milieu of the body and how the different body systems affect this balance. Students gain an appreciation for the human body and its interactions with the environment. (Does not count toward BIOL electives, controlled electives, or ancillary sciences for Biology Department majors and minors.)

BIOL 105 Cell Biology 3c-0l-3cr
**Prerequisites:** For biology majors only. Restricted to students who have completed fewer than 24cr.
Introduces concepts and applications for understanding human biological function from the point of view of cellular biology.

BIOL 106 Human Genetics and Health 3c-2l-4cr
**Prerequisite:** Non-Biology Department majors/minors only
A broad overview of the role that genetics and molecular biology play in the everyday life of humans. Organizes around a central question—how does genetics affect our health? Introduces human inherited diseases, genetic therapies utilized to correct genetic disorders, and the role of genetics in the new field of individualized medicine. Introduces the fields of stem cells and their therapeutic uses, the genetics of cancer, the microbial pathology of humans, and the utilization of vaccines in the treatment and prevention of human diseases. Using this background, the student is presented with the most recent events in the field of human genetic diseases and how they will affect the student in the future. (Does not count toward Biology electives, controlled electives, or ancillary sciences for biology majors and minors.)

BIOL 107 Introduction to Forensic Biology 3c-0l-3cr
**Prerequisite:** Non-Biology Department majors and minors only
A broad overview of basic principles underlying modern applications of biology in forensic science. Explores the science of forensic biology, traditionally known as serology, and the broad scope of laboratory tests used to investigate crimes involving DNA, blood, and other body fluids. Focuses on the issues related to DNA fingerprinting as they apply to public or legal proceedings in the law enforcement arena. (Does not count toward Biology electives, controlled electives, or ancillary sciences for biology majors and minors.)

BIOL 115 Biotic Diversity of North America 3c-0l-3cr
**Prerequisite:** Non-Biology Department majors/minors only
An introduction to the biological diversity of North America from Barrow, Alaska, to Tehuantepec, Mexico. All major aquatic and terrestrial biomes occurring in North America are examined with regard to plant forms, animal composition, and environmental (abiotic) conditions.

BIOL 117 Understanding HIV Biology and AIDS 3c-0l-3cr
**Prerequisite:** Non-Biology Department majors/minors only
An introduction to the mode of infection and prevention of AIDS virus that are used as an illustration of biological principles. Profiles biological indicators for HIV disease and its progression to AIDS. Therapeutic and non-therapeutic approaches to treat HIV infections are emphasized. (Does not count toward Biology electives, controlled electives, or ancillary sciences for biology majors and minors.)

BIOL 118 The History of Pain 3c-0l-3cr
**Prerequisite:** Non-Biology Department majors/minors only
Despite its many individual, social, and cultural characteristics, pain is
based on an anatomical and physiological foundation. Looks at the history of scientific theories and hypotheses about understanding the pain mechanism. Through this type of study, students learn about the status of pain in various societies throughout the ages. (Does not count toward Biology electives, controlled electives, or ancillary sciences for biology majors and minors.)

**BIOL 119 Emerging Diseases**  
**Prerequisite:** Non-Biology Department majors/minors only  
Introduces infectious diseases and their biological basis as well as the social, historical, and ethical consequences of these types of afflictions. Covers background material such as the germ theory of disease, the cell theory, disease transmission, and the structure of scientific knowledge at a fundamental level. Emphasizes ecology, epidemiology, evolution, and control of infectious agents, as well as prevention and treatment of infectious disease. Includes specific cases of emerging or reemerging diseases with an emphasis on current events related to disease outbreaks. (Does not count towards Biology electives, controlled electives, or Ancillary Sciences for biology majors and minors)

**BIOL 123 Perspectives in Cell and Molecular Biology**  
**Prerequisite:** BIOL 202  
For those interested in entering the Cell and Molecular Biology Track. Introduces the latest advances in the fields of molecular biology and biotechnology, as well as the career possibilities and professional responsibilities in these fields. Aids students in clarifying career goals and introduces them to the literature of molecular biology, including electronic resources. Includes field trips that might take place on weekends.

**BIOL 150 Human Anatomy**  
**Prerequisite:** Non-Biology Department majors only  
A study of the functional and systematic anatomy of humans. Laboratory studies focus on models of human organs and systems along with a dissected human cadaver. Also includes mammals whose anatomy is then related to the human condition.

**BIOL 155 Human Physiology and Anatomy**  
**Prerequisite:** Non-Biology Department majors only (nutrition, dietetics, family and consumer sciences education, health and physical education, and safety, health, and environmental applied sciences majors)  
A study of structure and function of the human body. Emphasizes normal function, with particular attention to functional anatomy, control mechanisms, and interrelationships among systems. Laboratory studies include experimentation and dissection. For students with little or no science background.

**BIOL 200 Medical Terminology**  
**Prerequisite:** BIOL 202  
Requires students to not only learn vocabulary, but also the proper pronunciation of medical terms. A class limit is requested to accommodate pedagogical approaches to developing oral pronunciation skills.

**BIOL 201 Principles of Ecology and Evolution**  
**Prerequisite:** For science majors only  
An introduction to ecology, including physiological and behavioral ecology, population and community ecology, and ecosystem and landscape ecology, and to evolution, including natural selection and population genetics, speciation, and phylogenetic history and systematics of life. Develops skills in the use of the scientific method. For science majors.

**BIOL 202 Principles of Cell and Molecular Biology**  
**Prerequisite:** CHEM 111 or 113  
An introduction to the structure and function of prokaryotic and eukaryotic cells and their cellular biochemistry, with emphasis on the genetic flow of information from DNA to RNA to protein and the regulatory events, including cell-cell communication, that instruct these pathways. Develops skills in the use of the scientific method. For science majors. (Offered as BIOL 202 before 2015-16.)

**BIOL 203 Principles of Genetics and Development**  
**Prerequisite:** BIOL 202 or instructor permission  
Introduces the science of genetics, with an emphasis on the basic principles of Mendelian genetics, the genetics of populations, molecular genetics, and the genetics of development. For science majors. (Offered as BIOL 263 before 2015-16.)

**BIOL 205 Ecological Methods**  
**Prerequisites:** BIOL 201; MATH 216 or 217  
Introduces the standard approaches for hypothesis testing in biological research, including experimental design, data collection, and data analysis. Emphasizes the analysis and interpretation of ecological data sets. Computer instruction focuses on software programs commonly used for biological data analysis.

**BIOL 210 Principles of Plant Biology**  
**Prerequisites:** BIOL 201, 202  
Explores the diversity, form, and function of vascular and nonvascular plants. Focuses on the evolutionary innovations that distinguish different taxonomic groups of plants. Topics include plant anatomy and physiology, growth and development, plant classification, plant ecology, and genetically modified foods. Discusses ways that plants are important to humans, ranging from food and lumber to sequestering carbon dioxide. An in-depth exploration of crop plants, including the science of biotechnology. (Titled Botany before 2014-15.)

**BIOL 211 Investigative Biological Forensics**  
**Prerequisite:** BIOL 107 or equivalent or instructor permission  
The lecture-only course examines how to collect and analyze biological evidences found on clothing, bones, insects, plants, weapons, and other surfaces to help identify victims and support criminal investigations. Covers a variety of subjects intimately linked including forensic anatomy, odontology, anthropology, pathology, entomology, botany, and environmental contamination. Presents case studies for each set of biological materials like insects, plants, bones, and fluids. Features in-depth discussion and writing.

**BIOL 220 General Zoology**  
**Prerequisite:** BIOL 201 or instructor permission  
Examines the evolution, form, and function of all major animal phyla, from sponges through chordates. Interactive lecture-laboratory sessions follow a phylogenetic approach to the animal kingdom and incorporate essentials of animal ecology, physiology, functional morphology, and behavior.

**BIOL 221 Environmental Health and Protection**  
**Prerequisites:** BIOL 201; CHEM 102, 112, or 114; or instructor permission  
Surveys indoor and outdoor environmental health hazards. Hazards are addressed from the standpoint of their source and nature, human health effects, measurement and control, and management.

**BIOL 240 Human Physiology**  
**Prerequisites:** BIOL 150 and CHEM 101; or BIOL 203; or KHSS 221; or instructor permission  
The study of the mechanisms, but with the human organism functions. Mechanisms covered range from the molecular/subcellular to the tissue, organ, and organism levels. Organ systems examined include the nervous, muscular, cardiovascular, respiratory, endocrine, renal, digestive, and reproductive. Emphasizes three major themes: (1) that organ functions are dependent on the underlying molecular and cellular processes, (2) that all organ systems use biological control systems to maintain organ homeostasis, and (3) that each organ function is closely controlled and dependent on the interaction/integration with functions from other organ systems. (Offered as BIOL 151 before 2015-16.)

**BIOL 241 Introductory Medical Microbiology**  
**Prerequisites:** Non-Biology Department majors in Health and Human Services and Natural Sciences and Mathematics only; BIOL 240; or instructor permission  
An introduction to medical microbiology that focuses on the structure, biology, and genetics of microbes in relation to human disease and to bacteriology as well as bacterial, viral, and fungal pathogens and the mechanism of disease. Prepares student for advanced study in microbiology and the health sciences. Standard methods and techniques are emphasized in laboratory. (Titled General Microbiology before 2015-16.)
BIOL 242 Comparative Vertebrate Anatomy 2c-3l-3cr
Prerequisite: BIOL 220
An investigation of the comparative structure and function of the vertebrate body, emphasizing the diverse solutions to the problem of design for survival and the evolutionary mechanisms that provide those solutions. Meets twice per week for 2.5 hours. Each meeting includes both lecture and laboratory experiences.

BIOL 250 Principles of Microbiology 3c-3l-4cr
Prerequisite: BIOL 201 or 203 or instructor permission
An introduction to microbiology focusing on the fundamental principles of microbial structure, modes of reproduction, genetics, and physiology. Emphasizes the importance of microbes in ecological, industrial, immunological, and epidemiological processes. Standard microbiological methods and techniques are emphasized in laboratory.

BIOL 261 Ornithology 2c-3l-3cr
A study of birds of the region. Indoor laboratory as well as early-morning and possibly weekend field trips required.

BIOL 272 Conservation of Plant and Animal Resources 2c-3l-3cr
Prerequisites: BIOL 201-202 or 103-104
A study of accepted practices in soil, water, forest, and wildlife conservation. Saturday field trips included.

BIOL 281 Special Topics var-1-3cr
Prerequisite: As appropriate to course content
Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 281 are offered primarily for lower-level undergraduate students.

BIOL 300 Genetics and Medicine and Nutrition 3c-0l-3cr
Prerequisite: BIOL 203 or 241 or CHEM 255
Examines how our genes play a role in disease and diet. Includes a fundamental background of genetics, as well as specific diseases that are caused by defective genes. Explores how nutrition interacts with the genome and its impact on health and disease.

BIOL 301 Fundamentals of Epidemiology 3c-0l-3cr
Prerequisites: BIOL 104 and 119, or 203; and MATH 216 or 217; or instructor permission
Introduces epidemiologic principles, concepts, and methods used to study the distribution and determinants of diseases in populations. Includes public health and clinical applications. Covers the history of epidemiology, dynamics of disease transmission, measures of disease frequency and association, study designs, causation, and also considers ethics and public policy issues in epidemiology. (Offered as BIOL 460 before 2016-17.)

BIOL 310 Applied Entomology and Zoonoses 2c-3l-3cr
Prerequisites: BIOL 201, BIOL 220; or instructor permission
A study of the measures for abatement or control of arthropods, rodents, birds, and other disease vectors of public importance; selection, chemistry, formulation, and safe application of insecticides, rodenticides, and fumigants; pesticiding equipment; application of biological and other measures of control.

BIOL 313 Forensic Analysis of DNA 3c-0l-3cr
Prerequisite: BIOL 211 or equivalent or instructor permission
The lecture-only course introduces the identification and assessment of biological evidence in criminal matters using DNA. Presents routinely used broad-based protocols for DNA typing, sample collection, and techniques applied in quality assurance during DNA profiling. Covers important questions about the use of DNA by criminal justice system.

BIOL 323 Introduction to Toxicology and Risk Assessment 3c-0l-3cr
Prerequisites: BIOL 104 or 203; CHEM 102 or 112 or 114; or instructor permission
A study of uptake, distribution, metabolism, and excretion of environmental chemicals; mechanisms of their toxicity; and their effects on major organ systems. Knowledge of these topics is applied to risk assessment procedures.

BIOL 331 Animal Developmental Biology 2c-3l-3cr
Prerequisite: BIOL 201 or 203; or instructor permission
Considers comparative and molecular development of vertebrate animals. General principles of development are illustrated using vertebrate, invertebrate, and plant materials.

BIOL 352 Comparative Animal Physiology 2c-3l-3cr
Prerequisites: BIOL 201 or 202, CHEM 231
A comparative study of homeostatic mechanisms and systems in animals and their relation to fundamental chemical and physical events in cells.

BIOL 362 Ecology 2c-3l-3cr
Prerequisites: BIOL 201, BIOL 210 or 220, or instructor permission
Studies the interrelations and adaptations of organisms; includes consideration of physical and biotic environmental factors. Field trips.

BIOL 364 Immunology 2c-3l-3cr
Prerequisites: BIOL 241 or 250; CHEM 102 or 332 or 351; or instructor permission
Physical and chemical properties of antigens and antibodies; nature of antigen-antibody interactions; mechanism of antibody formation; and immune reaction and disease. Lab employs serological techniques.

BIOL 401 Laboratory Methods in Biology and Biotechnology 2c-4l-3cr
Prerequisite: CHEM 351 or BIOC 301
Theory and practice in a number of major analytical and preparative techniques currently in use in physiology, molecular biology, and biotechnology. (Also offered as BIOC 401; may not be taken for duplicate credit.)

BIOL 402 Advanced Human Anatomy 3c-3l-4cr
Prerequisite: BIOL 202 or instructor permission; not open to students who have successfully completed BIOL 150; not open to students who have completed fewer than 60cr.
An intensive study of the gross anatomical structures and their functions within the human body. Explores the organization and integration of the human body on a region-by-region basis. For each region of the body, students observe all structures within that region simultaneously. This approach allows students to appreciate the integration of different biological systems within the body. Laboratories sessions center on regional cadaver dissection by groups of students to appreciate 3-D anatomical relationships.

BIOL 405 Biology of the Cell 2c-3l-3cr
Prerequisites: BIOL 202 or 203, CHEM 231, or instructor permission
Introduces the cellular and modular mechanisms by which individual cells grow, receive, and respond to internal and external signals and move. Discusses the latest advances in the discipline; students are expected to use current literature on their own as a means of building critical-thinking skills. The student-centered laboratory portion emphasizes individual and group activities.

BIOL 409 Pharmacology Principles and Applications 3c-0l-3cr
Prerequisite: BIOL 106 or 202 or 240
Explores the principles of the interactions of chemicals with biological systems in the context of human diseases of varied etiology (e.g. genetic, environmental) and clinical presentation. Introduces the general principles of pharmacokinetics and pharmacodynamics, integrating analysis at multiple biological levels (molecular, cellular, systems, organismal) to develop a broad view of the interaction of drugs with biological systems. Develops skills in pharmacological analysis through examination of actual and simulated sets of data. Examines applications of principles to specific fields of pharmacology (e.g., neuro-, cardiovascular, immun-, endocrine, cancer) and explores the discovery and development of new medications using examples from recent scientific and clinical trial literature.

BIOL 410 Molecular Biology Topics 3c-0l-3cr
Prerequisite: BIOL 203 or BIOC 301 or CHEM 351
Involves the study of biological phenomena in molecular terms. Focuses on recombinant DNA principles as they relate to prokaryotes and eukaryotes.
BIOL 411 Forensic Biology Laboratory Operations 2c-2l-4cr
Prerequisite: BIOL 313 or equivalent or instructor permission
A broad-based learning experience in multiple areas of biological forensics with special emphasis in unique nucleic acid and protein signature(s) patterns associated with the forensic biological evidence. Applies the theory and practice of presumptive and confirmatory testing methods on materials of forensic interest. Features in-depth discussion that integrates advanced characterization of biological evidences as it relates to criminal investigation and interpretation of the criminal justice system.

BIOL 420 Entomology Principles and Practice 2c-3l-3cr
Prerequisite: BIOL 103 or BIOL 201
Introduces the biology of insects, including identification and classification. Enables collecting of live insects from different habitats and observation of behavior and ecological roles during outdoor laboratory activities. Emphasizes characteristics unique to insects, such as pollination, metamorphosis, sociality, host plant specificity, and population control.

BIOL 425 Herpetology 2c-3l-3cr
Prerequisite: BIOL 220
A comprehensive survey of the classes of Amphibia and Reptilia, including their classification, structure, origin, evolution, phylogenetic relationships, distribution, and natural history. Special emphasis is placed on the herpetofauna of Pennsylvania.

BIOL 431 Ichthyology 3c-3l-3cr
Prerequisite: BIOL 220 or instructor permission
Introduces the biology, taxonomy, natural history, and conservation of freshwater and marine fishes. Examines the morphological and physiological adaptations that have allowed fish, the most diverse group of vertebrates, to thrive across a wide array of environments throughout the globe. Lab emphasizes collection and identification of fish found in Pennsylvania and the Great Lakes region, but select representatives from other families are also covered. Critically evaluates published scientific papers related to fish biology, physiology, and evolution.

BIOL 450 Field Biology at Pymatuning Laboratory of Ecology 3c-3l-4cr
During the summer session, various field courses are offered through the Pymatuning Laboratory of Ecology. The offerings vary, depending on the summer. Possible offerings include Field Methods in Ecology and Conservation, Fish Ecology, Behavioral Ecology, Aquatic Botany, Forest Ecology, and Wildlife Conservation. Information regarding specific offerings is available from the department in the spring.

BIOL 451 Evolutionary Biology 2c-3l-3cr
Prerequisites: BIOL 201, 203
A comprehensive survey of evolution and evolutionary biology, including the history of evolutionary theory, natural selection, microevolutionary and macroevolutionary processes, and the phylogenetic history and classification of life on earth. In laboratory, the focus is on learning current methods in population-level and phylogenetic analysis and presenting and leading peer discussions of important and current research in the field.

BIOL 455 Animal Behavior 3c-0l-3cr
Prerequisite: BIOL 220 or permission
The biological study of animal behavior. Topics include the mechanisms, development, ecology, and evolution of behavior.

BIOL 456 Ecological Toxicology 2c-3l-3cr
Prerequisites: BIOL 201 or 202, CHEM 112
Studies the impact of chemical pollutants and other stresses on nonhuman biological systems from the subcellular to ecosystem levels. An ecological risk assessment is conducted in the field and laboratory settings.

BIOL 462 Vertebrate Endocrinology 3c-0l-3cr
Prerequisite: BIOL 104 or 203 or 240 or instructor permission
Examines how hormones, or cell signaling molecules, are produced in specific endocrine tissues and alter the physiology of the of respective target tissues.

BIOL 463 Limnology 2c-3l-3cr
Prerequisite: BIOL 362
An investigation into the physical, chemical, and biological aspects of inland waters and their interrelationships. In the laboratory the student gains experience in the techniques involved in aquatic sampling and the analysis of data. (Saturday or Sunday labs may be required.)

BIOL 466 Principles of Virology 3c-0l-3cr
Prerequisite: BIOL 203, or CHEM 351, or instructor permission
Topics include structure, classification, assay, and transmission of viruses; methods used in the study of viruses; viral replication, gene expression, and gene regulation; host-viral interactions and subviral pathogens.

BIOL 469 Circadian Rhythms and Sleep 3c-0l-3cr
Prerequisite: BIOL 104 or 203 or 240 or instructor permission
Introduces the functions and mechanisms of biological clocks and rhythms in humans and animals, focusing primarily on circadian, or daily, rhythms. Examines how biological clocks keep time and influence behavior and physiology from the molecular level. Explains how circadian rhythms control sleep-wake and other important neurological functions to optimize biological fitness. Explores the consequences of disrupted circadian timing on physical and psychological health and performance.

BIOL 471 Dendrology of the Eastern US 2c-3l-3cr
Prerequisite: BIOL 210 or instructor permission
A comprehensive survey of the tree species in the eastern portion of North America with an emphasis on Pennsylvania forests.

BIOL 473 Seedless Vascular Plants: Ferns and Allied Flora 2c-3l-3cr
Prerequisite: BIOL 210
A comprehensive survey of morphological and habitat characteristics of seedless vascular plants (generally ferns and their allies) of Pennsylvania and the surrounding states.

BIOL 475 Mammalogy 2c-3l-3cr
Prerequisite: BIOL 220
A general discussion of mammals emphasizing systematics, distribution, and structural and functional modifications related to evolution of this group. Lab work samples numerous techniques that can be applied to mammalian biology.

BIOL 477 Neurobiology 3c-0l-3cr
Prerequisite: BIOL 105 or 202 or 240 or PSYC or instructor permission
Presents the underlying mechanisms through which the nervous system mediates behavior, from the molecular to the organismal level. Emphasizes two major themes: (1) the roles of synapses and neuronal excitability in shaping the input/output functions of neurons and neuronal networks and (2) the role of neuronal development and neuronal experience upon resultant neuronal organization.

BIOL 479 Neurobiology of Addiction 3c-0l-3cr
Prerequisite: BIOL 104 or 203 or 240 or instructor permission
Examines the biological foundations of addiction, with special emphasis on cellular and molecular mechanisms. Studies: (1) the effects of a wide range of drugs of abuse on brain function, (2) the neural circuitry of addiction, (3) the neurobiological influence of genes and environment on drug taking, and (4) the biological basis for traits linked to drug use, such as personality, memory, and mood. Discusses how cutting-edge biological methods are answering key questions about addiction and how the results of such research can be used to improve clinical treatment.

BIOL 480 Biology Seminar 1c-0l-1cr
A discussion of recent trends in biological thought and research. Students report on assigned readings and/or personal research.

BIOL 481 Special Topics var-1-3cr
Prerequisite: As appropriate to course content
Course varies from semester to semester, covering diverse topics in specific areas of biology.


BLAW 442 The Law of Property Oil and Gas Leasing II 3c-0l-3cr
Prerequisite: BLAW 441
Second legal course in the energy/oil and gas sequence and builds upon and advances concepts from the first course. Specifically geared toward the sophisticated legal understanding required to be employed as “landman” in the oil and gas fields. Covers these topics: the Habendum Clause, the drilling and rental clause, dry hole, cessation of production, and drilling operation provisions, delayed rental and bonus provisions, forfeiture and related provisions, implied covenants, prudent operator standard, implied drilling covenants, protection covenants, development, marketing and reasonable care covenants, assignments of royalties, royalty calculation under various state laws, drilling, and operating agreements, assignment of working interest, pooling and utilization issues and problems, oil and gas forms and leases, lien subrogation rights, environmental impacts from drilling standpoint and landowner standpoint. Industry guest speakers may also address these issues.

BTED: Business and Technology Education Department of Professional Studies in Education College of Education and Communications

BTED 401 Web Design 3c-0l-3cr
Focuses on web design research and experimentation with basic to leading-edge design techniques enabling the creation of user-focused websites. Emphasizes web design techniques resulting in fast-loading and well-placed graphics, cohesive color and typography across platforms and browsers, clear navigational interface, and appropriate use of sound, animation, and video. A variety of software production programs is introduced and used.

BTED 411 Methods in Business and Information Technology I 3c-0l-3cr
Prerequisites: EDSP 102, PSYC 101, and completion of the freshman and sophomore courses in the student’s major areas
Includes instruction in the general methods of teaching and evaluating business courses. A major emphasis is on the planning for instruction. Creative techniques and procedures for effectively teaching and managing the classroom are evaluated. Opportunities are provided to incorporate appropriate content and materials to allow for students with special learning needs.

BTED 412 Methods in Business and Information Technology II 3c-0l-3cr
Prerequisite: BTED 411
Includes instruction in the methods of teaching and evaluating both the technology-oriented and cognitive-related courses in business education. An emphasis is placed on planning instruction, developing methods and strategies for making effective classroom presentations, delivering instruction, and managing the classroom. Opportunities are provided to undertake the responsibilities assigned to the business classroom teacher incorporating appropriate content and materials to allow for students with special learning needs. Further, the prospective teacher is given opportunities to assume the teaching role competencies and research current trends in the field.

BTED 442 Training Methods in Business and Information Technology Support 3c-0l-3cr
Prerequisites: PSYC 101, junior standing
Includes the application of theories of adult learning to planning, delivering, and evaluating training for education and information technology. Major emphasis is on the planning of instruction. Topics include needs assessment, live and mediated instruction, classroom management, evaluation and follow-up methods, and evaluation of training strategies. (Offered as BTST 442 before 2014-15.)
BTED 470 Technology Applications for Education 3c-0l-3cr
Provides a prospective business educator with concepts, applications, and methodologies needed to be effective in today’s classroom, including advanced web page coding, advanced computer applications, creation of an inquiry-oriented activity in which the information that learners interact with comes from Internet resources, and a learned society’s rules for records management. Also includes instruction in the pedagogy of computer applications. The end product will be additions to students’ e-portfolios as well as their work sample.

CDFR 218 Child Development 3c-0l-3cr
Prerequisites: PSYC 101 C or better; or instructor permission
Prerequisite or Corequisite: SOC 151/161
Reviews cultural practices within and across global communities, developmental theories, learning theories, as well as the interrelationships among culture, development, and learning. Focuses on physical, cognitive, and social-emotional development from conception to adolescence.

CDFR 224 Marriage and Family 3c-0l-3cr
Prerequisites: PSYC 101 C or better; or instructor permission
Prerequisite or Corequisite: SOC 151/161
Reviews cultural practices within and across global communities, intimate relationships, human sexuality, family structures, as well as the interrelationships among culture, intimacy, and family. Focuses on adult cognitive, physical, and social-emotional development, family development, and trends within families.

CDFR 310 Child Observation and Assessment 3c-0l-3cr
Prerequisites: Grade of “C” or better in CDFR 218 and enrolled in minor or major or instructor permission
A study of two important aspects of child development as a course of study: observational assessment and theory. Observational assessment methods are taught and mastered by the students. Relevant theories of child development are discussed. Students integrate their observational assessment experience with the child development theories via a case study project.

CDFR 315 Introduction to Early Intervention 3c-0l-3cr
Prerequisites: Grade of “C” or better in CDFR 218, 224, 310
Focuses on early intervention policies and laws that relate to services for children from birth to school age, including the Individualized Family Service Plan (IFSP) and the Individualized Education Plan (IEP) process. Special emphasis is placed on ways to assist families in their roles as team members in the early intervention process, taking social, linguistic, economic, and cultural diversity into consideration. Provides practical information needed when working in early intervention settings.

CDFR 321 Preschool Education: Play and Developmentally Appropriate Practices 3c-0l-3cr
Prerequisite: Grade of “C” or better in CDFR 218
Emphasizes play as a developmental process, as the primary vehicle for early learning, and as the major aspect of the preschool curriculum. Utilizes the child development philosophy as the basis for early learning environments. Provides students with knowledge to implement developmentally appropriate curriculum and methods for preschool education programming.

CDFR 322 Early Care and Education 3c-0l-3cr
Prerequisites: Grade of “C” or better in CDFR 218 and previous 200- and 300-level child development and family relations courses
Introduces the historical background of the fields of childcare and early childhood education and current educational issues and theories affecting the field. Includes curricula models, frameworks for curricula, research on the impact of early childhood experience, and diversity and inclusion issues.

CDFR 323 Family Issues 3c-0l-3cr
Prerequisite: Grade of “C” or better in CDFR 224
A concentrated study of selected areas of family life, with emphasis on current personal and social issues affecting the family.

CDFR 410 Infant and Toddler Development 3c-0l-3cr
Prerequisites: Grade of “C” or better in CDFR 218, 310, 315, 321; compliance with current agency regulations; and enrolled in major or instructor permission
A study of characteristic developmental changes of human infants and toddlers from birth to approximately 36 months. Participation as teacher assistant in the infant/toddler childcare center provides experience in developmentally appropriate guidance and programming for very young children.

CDFR 411 Family and Community 3c-0l-3cr
Prerequisites: Grade of “C” or better in CDFR 218, 224, 310, 315, 323; compliance with current agency regulation and enrolled in major/minor or instructor permission
A study of community agencies and their service to families. Covers advocating for children and families, identifying community agencies that aid families in need, examining the professional code of ethics and ethical decision making, and recognizing signs of trouble within families and referring them appropriately. Community service and agency speakers are integrated into course work. Participation in a community service project is a mandatory part of the course. Completion of this course with a grade of “C” or better is required for graduation.

CDFR 420 Infant Toddler Mental Health 3c-0l-3cr
Prerequisite: CDFR 410
An introduction and overview of Infant Mental Health. Focuses on strengths in infants and families, a relational framework for assessment and intervention, and a prevention orientation. Emphasizes an understanding of how principles of infant mental health provide a foundation for working with children and families across settings and disciplines.

CDFR 425 Adolescence: Risk and Resiliency 3c-0l-3cr
Prerequisites: Grade of “C” or better in CDFR 218 and 224
Focuses on growth and development of pre-adolescents and adolescents, parenting of adolescents, and adolescents as parents. Special emphasis is given to identifying risk and resiliency factors when working with adolescents and families in the field of human services. A variety of human development theories are examined in an attempt to understand the adolescent from both an individual and a societal point of view.

CDFR 426 Techniques of Parent Education 3c-0l-3cr
Prerequisites: Grade of “C” or better in 218, 224, 310, 315, 321, 322
An examination of the nature, extent, and significance of parent education and parent involvement. Students become knowledgeable of the diverse and complex characteristics and needs of families. Enables students to identify the interrelationships of home, school, and community agencies to enhance collaboration and cooperation. Students identify methods, programs, and curricula to increase communication with parents and families.

CDFR 427 Administration of Human Service Programs 3c-0l-3cr
Prerequisite: Child development and family relations major or minor or instructor permission
Facilitates the acquisition of special knowledge and competencies needed by successful administrators of human service programs, including proposal writing, budgeting and management, staff selection and training, and program evaluation. (Titled Administration of Child Development Centers before 2016-17.)

CDFR 428 Family Dynamics 3c-0l-3cr
Prerequisites: Grade of “C” or better in CDFR 224, 310, 323; and enrolled in major or instructor permission
Emphasizes processes and models of family development topics, including an understanding of the development and maintenance of interpersonal relationships with an emphasis on how the theoretical frameworks of family studies can aid in this understanding. Focuses on approaches and dynamics of principles related to familial and marital adjustment and coping, with an emphasis on understanding the strengths and weaknesses of families and how family members relate to each other.

CDFR 429 Teaching in Community Settings 3c-0l-3cr
Prerequisites: CDFR 321, 410; compliance with current agency regulations; major/ minor or instructor permission; 90+ credits. Provides experience in developmentally appropriate guidance and programming for children through participation as a teacher assistant in a community early care or school age center. Focuses on the application of principles and concepts of child development. Emphasizes techniques of planning developmentally appropriate activities and utilizing positive guidance with groups of diverse children.

CDEF 430 Poverty and Human Development 3c-0l-3cr
Prerequisite: CDEF 425
Examines the measurement and perception of socioeconomic status in the United States with an emphasis on poverty. Facilitates the discussion of research, theory, and policy related to poverty and human development.

CDEF 481 Special Topics var-1-3cr
Prerequisite: As appropriate to course content
Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 481 are primarily for upper-level undergraduate students.

CDEF 482 Independent Study var-1-3cr
Prerequisite: Prior approval through advisor, faculty member, department chair, dean, and Office of the Provost
Upper-level students with high scholastic achievement pursue their particular interests outside the realm of the organized home economics education curriculum. May be taken more than once to a maximum of 3cr. Approval is based on academic appropriateness and availability of resources.

CDEF 493 Internship var-1-12cr
Permission of CDEF Program, Human Development and Fashion and Interior Design department and college dean; earned at least 75 credits; minimum GPA of 2.5 in major; compliance with current agency regulations; and enrolled in major. Provides students with practical field experience related to the student’s major area of study. Develops specific objectives individually in consultation with the internship coordinator and/or the university faculty member who supervises the internship.

CHEM: Chemistry
Kopchick College of Natural Sciences and Mathematics

CHEM 100 Preparatory Chemistry 3c-0l-3cr
A discussion of the fundamental terminology, calculations, and concepts of chemistry, including scientific measurements and calculations, simple definitions and concepts, atomic structure, the mole, mass and solution stoichiometry, ionic and covalent bonding, and the naming of atoms, molecules, and ions. Prepares science majors with limited backgrounds in chemistry and the Liberal Studies Natural Science Laboratory Sequence requirement.

CHEM 102 The Forensic Chemistry of CSI 3c-0l-3cr
For students who would like to learn about forensic chemistry and the basic science needed to understand it. Chemical concepts on the level of an introductory chemistry course and their applications to forensic science are explored in detail. Topics include the forensic analysis of drugs, fibers, glass, fingerprints, arson, questioned documents, and other types of physical evidence. Other topics include how forensic science is portrayed in novels, movies, computer games, and TV and the methods used in forensic evidence collection at a crime scene. Course cannot be used to fulfill the requirements for a chemistry major or minor.

CHEM 111 General Chemistry I 3c-3l-4cr
An introductory course for science and preprofessional health majors. First half of a two-semester sequence designed to give students the foundation of knowledge and laboratory techniques required to successfully complete a degree program in the sciences or gain entry into professional health programs. Topics include atomic theory, an introduction to chemical reactions, stoichiometry, gas laws, thermochemistry, chemical bonding, and molecular geometry.

CHEM 112 General Chemistry II 3c-3l-4cr
Prerequisite: CHEM 111 or 113
An introductory course for science and preprofessional health majors. Second half of a two-semester sequence designed to give students the foundation of knowledge and laboratory techniques required to successfully complete a degree program in the sciences, or gain entry into professional health programs. Topics include the solid states, solution theory, kinetics, equilibrium, thermodynamics, acids and bases, and electrochemistry.

CHEM 113 Advanced General Chemistry I 3c-3l-4cr
Prerequisites: Placement into MATH 121 or 125, high school chemistry
For well-prepared freshmen with high school chemistry and good math skills. Topics include atomic theory, chemical reactions, stoichiometry, thermochemistry, chemical bonding, molecular geometry, gas laws, the liquid and solid state, and solution theory. Topics are covered in greater depth and with more challenging problem solving than General Chemistry. For majors within the College of Natural Sciences and Mathematics and to fulfill the Liberal Studies Natural Science Laboratory Sequence requirement for those students.

CHEM 114 Advanced General Chemistry II 3c-3l-4cr
Prerequisite: Grade of “C” or better in CHEM 113
A continuation of Advanced General Chemistry I. Topics include solutions, chemical kinetics, equilibrium and thermodynamics, acids and bases, buffers, and electrochemistry. Topics are covered in greater depth and with more challenging problem solving than General Chemistry. For majors within the College of Natural Sciences and Mathematics and to fulfill the Liberal Studies Natural Science Laboratory Sequence requirement for those students.

CHEM 231 Organic Chemistry I 3c-4l-4cr
Prerequisite: CHEM 112 or 114
A study of compounds of carbon, with a special emphasis on structure-reactivity relationships. Laboratory work emphasizes methods of separation and purification of organic compounds.

CHEM 255 Biochemistry and Nutrition 3c-0l-3cr
Prerequisite: CHEM 102
For nutrition and dietetics majors. Studies chemistry and biological function of biologically active compounds with respect to nutritional requirements.

CHEM 290 Chemistry Seminar I 1c-0l-1cr
Prerequisite: CHEM 100 or 111 or 113
Provides knowledge to students concerning undergraduate research and career possibilities based on a degree in chemistry or biochemistry. Much of this class consists of presentations to students by research faculty in chemistry, biochemistry, and other departments across the university.

CHEM 314 Intermediate Inorganic Chemistry 2c-3l-3cr
Prerequisite: CHEM 112 or 114 or instructor permission
An in-depth study of inorganic compounds beyond what is presented in General Chemistry. Topics include Lewis structures and Lewis acid-base chemistry, an introduction to inorganic solids, coordination compounds, and bioinorganic chemistry. Provides a foundational understanding of inorganic chemistry to allow students to begin research and prepare for upper-level courses.

**CHEM 325 Analytical Chemistry I** 3c-3l-4cr
Prerequisite: CHEM 231
An introduction to the principles of analytical chemistry, including gravimetric, volumetric, and basic instrumental analysis. Special emphasis is placed on both perfecting the student’s laboratory technique and on the application of general chemical knowledge through problem solving.

**CHEM 326 Analytical Chemistry II** 3c-3l-4cr
Prerequisites: CHEM 325, 341
A more detailed examination of the principles of analytical chemistry. Student learns theoretical and practical aspects of sampling, data acquisition, and spectroscopic, electrochemical, chromatographic, thermal, mass spectrometric, and affinity methods of analysis.

**CHEM 332 Organic Chemistry II** 3c-4l-4cr
Prerequisite: CHEM 231
A continuation of Organic Chemistry I, with an introduction to spectroscopic techniques. Laboratory work emphasizes the synthesis of representative compounds.

**CHEM 341 Physical Chemistry I** 4c-0l-4cr
Prerequisites: PHYS 112 or 132; MATH 126; grade of “C” or better in CHEM 112 or 114
Foundations of chemical thermodynamics, equilibria, kinetics, quantum mechanics, and spectroscopy.

**CHEM 343 Physical Chemistry Laboratory I** 0c-3l-1cr
Prerequisite: CHEM 341 (may be taken concurrently)
Experiments illustrating application of fundamental laws to actual systems. (writing-intensive course)

**CHEM 351 Biochemistry** 4c-0l-4cr
Prerequisite: CHEM 231
A study of chemistry and biological functions of carbohydrates, lipids, proteins, minerals, vitamins, and hormones.

**CHEM 390 Chemistry Seminar II** 1c-0l-1cr
Prerequisite: CHEM 290 or 332
A seminar course to provide knowledge regarding effective oral and written scientific communication and the ethics of scientific practice. Students learn how to read and evaluate a research paper from the literature, how to formulate and write a research proposal, and how to present a research poster. Attendance of seminars outside of class time is required.

**CHEM 411 Advanced Inorganic Chemistry** 2c-3l-3cr
Prerequisites: CHEM 314, 341
Discussion of advanced theories of atomic structure, chemical bonding, acids and bases, coordination compounds, and selected topics. In the laboratory portion, techniques used in the synthesis and characterization of inorganic compounds are explored.

**CHEM 431 Organic Molecular Structure Determination** 4c-var-3cr
Prerequisites: CHEM 231-332 (CHEM 332 may be taken concurrently)
Gives the student experience in systematic identification of various classes of organic compounds by both chemical and physical methods.

**CHEM 435 Current Topics in Organic Chemistry** 3c-0l-3cr
Prerequisites: CHEM 332 and 341
Selected topics of current interest covered. Possible topics include reaction mechanisms, molecular spectroscopy, stereochemistry, natural products, heterocycles, polymer chemistry, and organic synthesis.

**CHEM 442 Advanced Physical Chemistry** 3c-0l-3cr
Prerequisites: CHEM 341, MATH 225 (may be taken concurrently) Indepth exploration and applications of chemical thermodynamics, equilibria, kinetics, quantum mechanics, and spectroscopy.

**CHEM 444 Advanced Physical Chemistry Laboratory** 0c-3l-1cr
Prerequisites: CHEM 343; must be taken after or concurrent with CHEM 442
An extension of CHEM 343; experiments related to chemical kinetics, molecular spectroscopy, and other topics of physical chemistry.

**CHEM 460 Chemistry and Physics of Materials** 3c-0l-3cr
Prerequisites: CHEM 112 or 114 and PHYS 112 or 132
Provides unified treatment of materials. Emphasizes physical and chemical origins of material properties. Multidisciplinary approach using chemistry, physics, and geoscience to study bonding and crystal chemistry. An interdisciplinary approach to the study of material phenomena involving electronic devices, energy storage, second harmonic generation, superconductivity, and others.

**CHEM 461 Modern Diffraction** 3c-0l-3cr
Prerequisites: CHEM 112 or 114 and PHYS 112 or 132
Investigates advances in crystallography and its applications to modern science. Emphasizes powder diffraction, including Rietveld analysis. Develops proficiency in data collection, phase analysis, and structure refinement and shows how crystallographic science can address scientific problems.

**CHEM 481 Special Topics** var-1-3cr
Prerequisite: As appropriate to course content
Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 481 are primarily for upper-level undergraduate students.

**CHEM 490 Chemistry Seminar III** 1c-0l-1cr
Prerequisite: CHEM 390
A discussion of recent trends in chemical thought. Oral and written reports on assigned readings, library, or laboratory research. Guest lecturers. A seminar course to provide knowledge to students regarding effective oral and written scientific communication. Students refine their skills in reading and evaluating research papers from the literature, write a formal research paper, and present a research seminar. The combination of CHEM 390 and 490 counts as one writing-intensive course.

**CHEM 493 Internship in Chemistry** var-4-9cr
Prerequisites: CHEM 112 or 114, CHEM 231,325s, 341, junior status, and departmental approval
Full-time involvement in an actual “on-the-job” situation in an industrial or research laboratory under the tutelage of a selected preceptor. A department faculty member works closely with the student and preceptor and assumes responsibility for making the final evaluation and assigning a grade.

**CHEM 498 Problems in Chemistry** var-1-2cr
Prerequisites: CHEM 231 and permission of chair
Supervised undergraduate research, in conjunction with a faculty member in the Chemistry Department.

**CHHS: College of Health and Human Services**

**CHHS 281 Special Topics** 1-3c-0l-1-3cr
Offered on an experimental or temporary basis to explore topics related to the fields in the College of Health and Human Services.

**CHIN: Chinese**
Department of Foreign Languages
College of Humanities and Social Sciences

**CHIN 101 Elementary Chinese I** 4c-0l-4cr
For beginning students. Introduces the Chinese language, with attention focused on the three modes of communication: interpretive listening and reading, interpersonal speaking and writing, and presentational speaking and writing. Students learn pronunciation, fundamental grammatical patterns, and how to write approximately 250 characters. Also imparts knowledge of...
Chinese culture and society. Attendance is required. May not register for or take a D/F repeat in CHIN 101 when credit has already been received for a higher-numbered Chinese course.

CHIN 102 Elementary Chinese II 4c-0I-4cr
Prerequisite: CHIN 101
A continuation of Elementary Chinese I, focusing on the three modes of communication—interpreting listening and reading, interpersonal speaking and writing, and presentational speaking and writing—to build proficiency in using the Chinese language in real-life situations. Also imparts knowledge of Chinese culture and society. Attendance is required. May not register for or take a D/F repeat in CHIN 102 when credit has already been received for a higher-numbered Chinese course.

CHIN 201 Intermediate Chinese 4c-0I-4cr
Prerequisite: CHIN 102
A continuation of previous work on the three modes of communication: interpretive listening and reading, interpersonal speaking and writing, and presentational speaking and writing, so that students can function in everyday situations. Also imparts knowledge of Chinese culture and society. Liberal Studies credit is given. Attendance is required. May not register for or take a D/F repeat in CHIN 201 when credit has already been received for a higher-numbered Chinese course.

CHIN 281 Special Topics var-1-3cr
CHIN 481 Special Topics var-1-3cr
CHIN 482 Independent Study var-1-3cr

CHSS: College of Humanities and Social Sciences

CHSS 121 University Foundations 2c-0I-2cr
Provides freshmen on the Punxsutawney Regional Campus with a transition from secondary education to collegiate-level learning and expectations. Foremost, teaches critical thinking. In addition, interests and majors are explored, and fundamental learning skills and university support services and policies are taught.

CHSS 142 Introduction to Secondary Social Studies Education 1c-0I-1cr
Prerequisite: Secondary Social Studies Education or History majors in the first year of study or with the consent of instructor.
Introduces the foundational concepts and practices in social studies education, the vocabulary of social studies education, and the qualities and best practices of an effective social studies educator.

CHSS 342 Social Studies Teaching Lab 0c-0I-1cr
Prerequisites: EDUC 242 and currently enrolled in EDUC 342
A laboratory experience providing the opportunity to explore and experiment with strategies and methodologies connected with teaching in the various disciplines of the social studies. Offers hands-on experience with public school students in a controlled setting. Allows students to experience middle and high school settings as well as build a repertoire of social studies teaching methodologies that enables them to complete EDUC 342 more effectively.

CHSS 343 Applied Practice in Secondary English Language Arts 1c-0I-1cr
Prerequisite: EDUC 242
Corequisite: Concurrent with EDUC 342
In conjunction with EDUC 342, prepares candidates for field experience in secondary English language arts. Students continue to develop skills for school-site observation, are introduced to philosophical models of classroom management, and receive instruction about completing the Step 2 portfolio requirement. Provides opportunity for students to apply understanding of pedagogical content knowledge to observation and lesson design and to familiarize themselves with teacher research methodology.

CNSD: Counseling and Student Development
The Counseling Center
Student Affairs Division
Prerequisite: COMM 150
Explores the origins of games and game play into the contemporary era of video and electronic games. Introduces the history of the games industry and the process of how games are created. Analyze games through an ethical and developmental framework, as well as explores how games are used for entertainment, teaching, and training.

COMM 207 Online Media Production 3c-0l-3cr
Examines the development and production of media for online applications such as video streaming and social media sites. Discusses management, as well as the fiscal, ethical, and technological issues surrounding online media. Requires students to complete a production project where they develop and produce audio, video, and other digital media components for online distribution for a social media campaign.

COMM 230 Global Media and Communication 3c-0l-3cr
Provides an overview of global media and international communications. Describes how international communication and development of global media has influenced relationships among nations and among people with different cultural backgrounds. Covers social, economic and political situations prior to and after globalization, which include global issues that intersect with media ownership, access to media, and the impact of media communications on culture and people living in developed and developing countries. Analyzes how understanding global media and communication can enhance students to think critically, respect their own identities, history and culture as well as others.

COMM 240 Communications Graphics 3c-0l-3cr
Prerequisites: COMM 101 or JRNL 105, communications media major or minor, photography and digital imaging certificate or digital history certificate enrollment or permission
An introduction to graphic design concepts and related processes and techniques for a variety of forms of presentation media including television, multimedia, and online communications for educational, corporate training, and communications specialists. Both two- and three-dimensional design and basic animation concepts are explored. Hands-on experiences using a variety of graphic software applications.

COMM 249 Basic Audio Recording Techniques 3c-0l-3cr
Prerequisites: COMM 101 or JRNL 105, communications media major or minor, popular music studies certificate, audio production certificate, or digital history certificate enrollment or permission
Theory and practice of recording sound, developing an understanding of the language of sound recording as well as the ability to make sound recordings. Offers exposure to recording for various media including radio, music, motion pictures, television, and multimedia production. Material also appropriate for teachers who wish to make use of audio recording in the classroom. Provides hands-on experience through labs and projects to be completed outside of class.

COMM 251 Television Production 3c-0l-3cr
Prerequisites: COMM 101 or JRNL 105, communications media major or minor, photography and digital imaging certificate enrollment or permission
Develops basic skills in television production and direction. Consideration of operating problems of a television studio, as well as functions, limitations, and capabilities of television equipment and facilities.

COMM 261 Teamwork and Communication Skills for College and Career 3c-0l-3cr
Focuses on developing teamwork and communication skills for the presentation of career-oriented, technically rich information. Applies foundational theories of communication and the rhetoric of public communication and use that understanding to present academic research, data, and technical information orally and in written form. Prepares students to engage audiences, frame and present arguments, and develop the ability to present their topic and its significance in technical and non-technical settings. Explores different types of presentation situations including team oral presentations, team written reports, poster session presentations, platform presentations, symposia, and panel discussions. Prepares students to produce appropriate media to supplement their presentations. Presentations are video recorded for individual, peer, and instructor evaluation.

COMM 271 Beginning Photography 3c-0l-3cr
Prerequisites: COMM 101 or JRNL 105, communications media major or minor, interior design major, photography and digital imaging certificate or digital history certificate enrollment or permission
Introduces beginning photography students to photography as a tool for communications and as a lifelong leisure activity. Covers basic camera operation and other means of image acquisition, imaging processing and manipulation, printing, and photo finishing. Student is required to have a camera, preferably a single-lens reflex, with fully manual focusing and exposure capability.

COMM 281 Special Topics var-1-3cr
Prerequisite: As appropriate to course content
Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 281 are offered primarily for lower-level undergraduate students.

COMM 302 Research in Communications Media 3c-0l-3cr
Prerequisites: COMM 150, ENGL 101 and 202 (grade of “C” or better)
Provides knowledge of the resource materials and research strategies used in the communications media field. Students design basic data gathering instruments, collect data, and assimilate information from various sources and data into communication products, services, or documents.

COMM 303 Scriptwriting 3c-0l-3cr
Prerequisites: COMM 101 or JRNL 105; ENGL 101 and 202 (grades of “C” or better) or permission
An introduction to the design of media materials and script writing. Style and techniques of writing are analyzed. Classroom emphasis is on writing critiques, and revision of designs and scripts. Scripts for audio, multimedia presentations, and motion picture and television productions are written. May be offered under a different topic area such as: COMM 303 Scriptwriting: Comedy or COMM 303 Scriptwriting: Drama. May be repeated for a maximum of six credits under a different topic area. Students who need to D/F repeat COMM 303 may repeat the course under a different variable title.

COMM 305 Electronic Media Programming and Sales 3c-0l-3cr
Prerequisite: COMM 150
Explores two primary functions of the electronic media: providing programming for audiences and providing economic viability to media outlets by selling commercial time to clients. Explores topics such as program development, scheduling, and promotion. Also explores the basic strategies used in the electronic media to sell commercial time and the use of audience and ratings analysis in the processes of programming and sales.

COMM 306 2-D Digital Game Development 3c-0l-3cr
Prerequisite: COMM 206
Examines the theory and development of digital games. Topics explored include the logistics of gameplay, the process of game development, gaming technology, and the psychology of gaming. The history and organization of the gaming industry are also examined. Students also create deliverables around a game concept they develop in the process of completing the course.

COMM 315 Persuasive Media Writing 3c-0l-3cr
Prerequisites: COMM 101 or JRNL 105; ENGL 101 and 202 (grades of “C” or better)
Introduces concepts of writing persuasive announcements, such as commercials and promotional messages, and other content for digital media. Analyzes persuasive media announcements, and incorporates writing with the use of evidence, emotion, and reasoning to reach audiences. Aids in understanding how to create media messages that influence audience attitudes and behaviors.

COMM 325 Gender in Media 3c-0l-3cr
Provides an overview and analysis of gender portrayal and representation in media. Analyzes topics related to media effects theories that affect identity
perception and relationships with others. Examines the historical development and cultural influence on gendered communication as well as the social contexts that influence gender perception.

**COMM 330 Instructional Design for Training and Development**  
3c-0l-3cr  
**Prerequisites:** COMM 101 or JRNL 105; ENGL 101 and 202 (grades of “C” or better) or permission  
An in-depth experience in planning and preparing graphic materials commonly used in the communications profession; graphic materials include nights and weekends outside of regular class time. This course may be repeated one time for a maximum of six credits.

**COMM 335 Communications Consulting and Project Management**  
3c-0l-3cr  
**Prerequisite:** COMM 101 or JRNL 105  
A production course that emphasizes advanced field production techniques. Some of the topics covered include: field lighting, video post-production editing with A-B roll, on-line editing, and non-linear editing. Provides hands-on experience through projects and field trips. May be offered under a different topic area such as: COMM 351 Advanced Video Production: Documentary Video or COMM 351 Advanced Video Production: Music Videos. May be repeated for a maximum of six credits under a different topic area. Students who need to D/F repeat COMM 351 may repeat the course under a different variable title.

**COMM 340 Advanced Communication Graphics**  
3c-0l-3cr  
**Prerequisites:** COMM 240, permission  
An in-depth experience in planning and preparing graphic materials commonly used in the communications profession; graphic materials include design, photosketching, lettering, slide titling and duplication, preparation of camera-ready art, lithographic film and master layout sheets, professional slide flat production and photocopy, large-format transparency production, color key, and color systems.

**COMM 341 Documentary Photography**  
3c-0l-3cr  
**Prerequisites:** COMM 150  
Introduces students to advanced photography concepts. Emphasizes proper technical skills, creative application of the photographic medium, as well as the development of an aesthetic and creative vision in photography. Designs and implements lighting techniques, and investigates the many ways in which photography can be utilized. Explores the visual language of photography and how to express ideas in images.

**COMM 342 Documentary Video**  
3c-0l-3cr  
**Prerequisite:** COMM 271 or permission  
Introduces students to documentary photography and prepares them to photograph documentary content that explore aspects of historical significance, cultural value, social change, and social injustice, while also creating documentary images. Explores the differences and similarities between documentary photography and purely aesthetic photography, as well as the ethics of documentary photography. Critically analyzes documentary images. Projects, photographers, and the societal impact they have made. Students are required to have access to a DSLR camera.

**COMM 345 Television Criticism**  
3c-0l-3cr  
**Prerequisite:** COMM 150 or instructor permission  
The medium of television offers a unique environment for development and delivery of information, entertainment, and news. Explores and analyzes television programming. Includes examination of genres ranging from situation comedy to drama to miniseries and made-for-TV movies.

**COMM 348 Animation**  
3c-0l-3cr  
**Prerequisite:** COMM 150  
Introduces traditional and digital animation techniques and offers practical experience in planning and producing animated sequences. Includes a history of animation and theories of animation, both applied and as a communication medium. Practice in designing, drawing, modeling, simulating, creating, and texturing animated sequences; preparation of character designs; storyboards and cue sheets; integration of visual effects, animation, and sound.

**COMM 349 Radio Production**  
3c-0l-3cr  
**Prerequisites:** COMM 101 or JRNL 105; communications media major or minor, audio production certificate enrollment or permission  
An introduction to production techniques as they pertain to radio. Exposure to programming, scripting, producing programs, intros, outros, commercials, public service announcements, station identifications, and promotional announcements. Also deals with the interaction of a radio station with national networks and with the real-life concerns of deadlines.

**COMM 350 Advanced Radio Production**  
3c-0l-3cr  
**Prerequisites:** COMM 349; cannot be taken concurrently; communications media major or communications media minor or audio certificate status  
Refines and supplements the production skills introduced in COMM 349, advancing beyond isolated off-air announcements to producing radio programs of substantial length and complexity. Introduces advanced radio skills including preproduction and planning for long form programming, live program production, mobile recording, advanced sound mixing and editing, sequencing, mastering, and more. Projects may include radio news production, radio documentary, public affairs, and radio drama.

**COMM 351 Advanced Video Production**  
3c-0l-3cr  
**Prerequisite:** COMM 251  
A specialized study under the supervision of a faculty sponsor. Students make media service contributions to department and campus media-related activities and develop professional skills in the field. Students may use their own equipment and the department's studio facilities.

**COMM 352 Documentary Video**  
3c-0l-3cr  
**Prerequisite:** COMM 271 or permission  
Introduces students to documentary photography and prepares them to photograph documentary content that explore aspects of historical significance, cultural value, social change, and social injustice, while also creating documentary images. Explores the differences and similarities between documentary photography and purely aesthetic photography, as well as the ethics of documentary photography. Critically analyzes documentary images. Projects, photographers, and the societal impact they have made. Students are required to have access to a DSLR camera.

**COMM 353 Mass Media and Behavior**  
3c-0l-3cr  
**Prerequisites:** PSYC 101 and junior or senior status  
Theory and research on the influence of the mass media on human behavior and attitudes. Topics include the effects of news and political advertising on public opinion; the effects of racist and sexist portrayals; and the effects of violence and pornography on aggressive behavior. (Also offered as PSYC 375; may be taken only once.)

**COMM 354 Radio Production**  
3c-0l-3cr  
**Prerequisite:** Instructor permission  
Introduces students to radio production and prepares them to produce radio programs of substantial length and complexity. Introduces advanced radio skills including preproduction and planning for long form programming, live program production, mobile recording, advanced sound mixing and editing, sequencing, mastering, and more. Projects may include radio news production, radio documentary, public affairs, and radio drama.

**COMM 355 Television Production**  
3c-0l-3cr  
**Prerequisite:** Instructor permission  
Introduces students to television production and prepares them to produce television programs of substantial length and complexity. Introduces advanced television skills including preproduction and planning for long form programming, live program production, mobile recording, advanced sound mixing and editing, sequencing, mastering, and more. Projects may include television news production, television documentary, public affairs, and television drama.

**COMM 356 Motion Picture Production**  
3c-0l-3cr  
**Prerequisite:** Instructor permission  
Introduces students to film production and prepares them to produce film programs of substantial length and complexity. Introduces advanced film skills including preproduction and planning for long form programming, live program production, mobile recording, advanced sound mixing and editing, sequencing, mastering, and more. Projects may include film news production, film documentary, public affairs, and film drama.

**COMM 357 Television Medium**  
3c-0l-3cr  
**Prerequisite:** Instructor permission  
Introduces students to television production and prepares them to produce television programs of substantial length and complexity. Introduces advanced television skills including preproduction and planning for long form programming, live program production, mobile recording, advanced sound mixing and editing, sequencing, mastering, and more. Projects may include television news production, television documentary, public affairs, and television drama.

**COMM 358 The History of African Americans in Film**  
3c-0l-3cr  
**Prerequisite:** Instructor permission  
Traces the historical development of the roles of African Americans in film. Examines the early stereotypic portrayals of this group, the origins of these stereotypes, and the ongoing changes, positive and negative, that have occurred regarding the media representation through research, film, and archetypal analysis, observation, and discussion. The new generation of African American filmmakers and their creative efforts to promote more realistic portrayals are analyzed.

**COMM 359 Practicum in Communications**  
var-1-3cr  
**Prerequisites:** Communications media major, department permission  
A specialized study under the supervision of a faculty sponsor. Students make media service contributions to department and campus media-related activities and develop professional skills in the field. Students may use their own equipment and the department's studio facilities.

**COMM 360 Digital Sports Production**  
3c-0l-3cr  
**Prerequisite:** Instructor permission  
An introduction to the pre-production, production, and post-production processes of live and recorded sporting events. Engagement in all aspects of the production process, including live production for webcasting, video-recording and editing sporting events. Attendance and participation is required in the production of selected local sporting events, which may include nights and weekends outside of regular class time. This course may be repeated one time for a maximum of six credits.
facilities, while receiving credit. For each practicum credit, students will log a minimum of 90 hours of service. A maximum of 6 practicum credits can be used within a 120-credit degree program. The combination of practicum and internship credits cannot exceed 15 credits.

**COMM 395 Career Planning in Communications Media** 1c-0l-1cr  
**Prerequisites:** Communications media major only with junior/senior status  
Serves as the primary skill-building and strategy-seeking experience for the internship program and later career entry and growth. Extensive writing, research, and individual counseling are involved.

**COMM 401 Promotion for Radio, Television, and Cable** 3c-0l-3cr  
Teaches students the promotion processes used by promotion directors at radio stations, television stations, and cable outlets. Emphasis is placed on understanding the purpose and application of demographic and psychographic targeting of the television, radio, and cable audiences. Helps students understand how to build audiences in the competitive television, radio, and cable environments.

**COMM 403 Multimedia News Writing** 3c-0l-3cr  
**Prerequisites:** COMM 101 or JRNL 105; ENGL 101 and 202 (grades of “C” or better) or permission  
Introduces students to various styles and formats used in writing news scripts for multiple media platforms, including radio, television and online content. Analyzes news-related theories and the legal and ethical responsibilities of news writers and producers. Focuses on writing skills for different platforms.

**COMM 406 3-D Game and Simulation Design and Development** 3c-0l-3cr  
**Prerequisite:** COMM 348  
Examines the theory and development of 3-D digital games and simulations from a communications media perspective. Learners are exposed to topics such as the logical structure of 3-D games and simulations, 3-D game technology, and the process of 3-D digital game development. Learners are also exposed to the history and organizational structure of the 3-D game industry as well as its theory and history.

**COMM 407 Television Feature Production** 3c-0l-3cr  
**Prerequisite:** COMM 251  
Teaches the creative and technical elements necessary to produce feature programming for television. Combines theory and practice, with an emphasis on practice. Provides knowledge and skills on video capture, audio pick-up and mixing, and lighting design for field production and in-studio production. Produces feature stories for television, which includes filming on and off campus, script writing, interviewing, and editing as practiced at an international level.

**COMM 408 Media Field Studies** 3c-0l-3cr  
**Prerequisites:** COMM 101 or JRNL 105, junior standing, and instructor permission  
A hands-on course to help students learn about the production process involving on-location production. Has three distinct phases: Students begin with research and preproduction tasks on campus, may travel to a remote site to collect additional information and images, and use those images to complete a production; students are responsible for travel expenses.

**COMM 414 Music, Media, and Culture** 3c-0l-3cr  
**Prerequisites:** Communications media major or minor, or popular music studies certificate and junior standing  
Examines the intersections between media technologies, popular music, and culture. May include technology’s constant influence in musical performance, production, and distribution; the music industry’s marketing of popular music; popular music’s relationship to cultural identity (e.g., race, gender, sexuality); and music as a cultural practice.

**COMM 420 Media Portrayal of Crime** 3c-0l-3cr  
**Prerequisite:** COMM 101 or JRNL 105 or CRIM 101 or departmental permission  
An examination of the portrayal of crime in the media (television, film, newspapers, music, video games, electronic/Internet). This includes, but is not limited to, victims, offenders, criminal justice actors, and the criminal justice system. Of importance is how the media select what is newsworthy and how they describe and/or alter criminal justice issues. Attention is paid to the media’s influence on perceptions of crime, the ethics behind the media’s perceptual influence, criminology and criminal justice issues of the general population, and the resultant criminal justice policies. Seminar based. (Also offered as CRIM 420; may not be taken as duplicate credit.)

**COMM 440 Multimedia Production** 3c-0l-3cr  
**Prerequisite:** COMM 240 or instructor permission  
Presents the processes and techniques of planning, designing, and producing used with interactive multimedia. Provides hands-on experiences in the use of graphics, audio, animation, video, and authoring software applications to produce an aesthetically acceptable product that meets specific objectives. Meets the needs of educational media, corporate training, and communications specialists.

**COMM 445 Cinematic Directors** 3c-0l-3cr  
**Prerequisite:** COMM 150 or instructor permission  
Analyzes examples of classical cinematic techniques, identifies, through research and watching film. classical techniques of cinema as well as the preproduction, production and postproduction required to successfully utilize them. Offers a context and critical tools for better understanding of the moving image in its different manifestations.

**COMM 446 3-D Modeling and Animation for Games and Simulations** 3c-0l-3cr  
**Prerequisite:** COMM 348  
Examines the basic principles of three-dimensional computer modeling and animation. Learners are exposed to an overview of the history of computer-based animation and the fundamental theories behind digital animation and modeling. They also receive an introduction to the design and development of three-dimensional computer-based models and animation. Topics, e.g., aesthetics, as well as modeling, texturing, lighting, animating and rendering, rigid body dynamics, and manipulations of meshes through bones, are discussed. Forward and inverse kinematics, object hierarchies, and animation techniques, including frame-based, particle system, and physics-based/algorithmic, are described and applied.

**COMM 449 Advanced Audio Recording Techniques** 3c-0l-3cr  
**Prerequisites:** COMM 249, permission  
Sound recording utilizing advanced techniques and concentrating on specific applications. Students participate in an intensive lab experience utilizing the most advanced equipment available. Emphasizes application, editing, signal processing, and multitrack recording. Student is expected to produce a sound recording for a specific use of professional quality. May be offered under a different topic area such as: COMM 449 Advanced Audio Recording Techniques: Music Recording or COMM 449 Advanced Audio Recording Techniques: Instructional Media. May be repeated for a maximum of six credits under a different topic area. Students who need to D/F repeat COMM 449 may repeat the course under a different variable title.

**COMM 451 Multimedia News Procution** 3c-0l-3cr  
**Prerequisite:** COMM 251 or permission  
Exposes students to news media theories and legal as well as ethical responsibilities of news reporters and producers. Emphasizes practices to be competent broadcasters. Focuses on camera operation, interviewing, editing and producing individual news packages. Involves collaboration and teamwork to host and produce an on-air 30 minutes news show.

**COMM 460 Emerging Trends in Communication Technology** 3c-0l-3cr  
**Prerequisite:** COMM 150  
An introduction to the ever-changing world of telecommunication technologies, focusing on modern, computer-driven modes of information exchange. An opportunity to synthesize several of the technologies covered and integrate them into a workable solution to a practical telecommunication problem.

**COMM 470 Management Practices in Electronic...**
Communications 3c-0l-3cr
Prerequisites: COMM 150, any communications media writing-intensive course, and junior or senior standing

Presents the theory and practice of media management. Areas covered include problem solving, documenting and reporting, career systems, budgeting, personnel, ownership, unionization, market analysis, and special topics as directly related to communications media industries. Students conduct case study research related to their career direction.

COMM 471 Electronic Imaging 3c-0l-3cr
Prerequisite: COMM 271 or permission

An introduction to the use of electronic still photography (ESP) for the capture, recording, and transfer of still images and the use of computers for the storage, manipulation, and output of color and black and white photography. Extensive training in the use of software packages for image enhancement, restoration, and manipulation is provided. Students learn the applications of this technology to the print media and examine the ethical and legal issues of image manipulation.

COMM 475 Senior Portfolio Presentation 1c-0l-1cr
Prerequisites: Communications media majors only and COMM 395

Students compile and present a series of works produced through previous communications media courses and activities. The result is a portfolio suitable for presentation to a potential employer. The portfolio may include examples of student works from a variety of subject areas.

COMM 480 Seminar in Communications Media 3c-0l-3cr
Prerequisites: Junior or senior standing, other prerequisites as appropriate to course content

A seminar in selected communications issues or problems. Includes the reading and review of the current literature as appropriate to the major topic presented in the seminar.

COMM 481 Special Topics var-1-3cr
Prerequisite: As appropriate to course content

Offered on an experimental or temporary basis to explore topics not presented in the seminar. As appropriate to course content.

COMM 493 Internship 9cr
Prerequisites: COMM 395, 2.0 overall GPA and department approval

Supervised professional summer work experience in communications media. Internship sites reflect the academic goals of the department and are approved and administered by a department coordinator. Location, duties, duration of internship, and work hours are tailored to students’ career goals. Sites represent a broad spectrum of communications and media in business, education, health, or other agencies. Students must complete 360 hours of internship work experience and a culminating internship project. A maximum of 15 credits of internship and/or practicum are permitted toward a degree program. Students whose internship responsibilities include regular contact with minors are required to take the Protection of Minors Training. All internship sites are required to be compliant with University internship policies and requirements.

COSC: Computer Science
Department of Mathematical and Computer Sciences
Kopchick College of Natural Sciences and Mathematics

COSC 101 Computer Literacy 3c-0l-3cr

An introductory course providing fundamental understanding of computers. Familiarizes students with the interaction of computer hardware and software. Emphasizes the application of microcomputers, the use of productivity software (word processing, spreadsheet management, file and database management, presentation graphics, web browsers, search strategies, and e-mail), and the social and ethical aspects of the impact of computers on society. (Does not count toward computer science major.) Note: cross-listed as BTED/IFMG 101. Any of these courses may be substituted for each other and may be used interchangeably for D/F repeats but may not be counted for duplicate credit.

COSC 105 Fundamentals of Computer Science 3c-0l-3cr

The first course for computer science majors. Required of all computer science students; appropriate for other Natural Sciences and Mathematics students. Topics include the fundamental concepts of computer architecture, algorithm development and analysis, programming languages, software engineering, data organization and representation, and systems software. A hands-on introduction to computer usage with an emphasis on terminology and the underlying connections within the discipline.

COSC 110 Problem Solving and Structured Programming 3c-0l-3cr

An introduction to the development of algorithmic solutions to a variety of problems and the development of computer programs to implement the solutions. Explores standard programming structures used to introduce fundamental algorithmic/programming concepts including variables, assignments, conditionals, loops, functions, and arrays and their role in problems solving. Emphasizes structured programming in the development of algorithm solutions to common problems. Object-oriented paradigm is introduced at a basic level.

COSC 143 Cyber Wellness 3c-0l-3cr

Investigates the different categories of cyber wellness and how they affect emotional, physical, social, and intellectual wellness. Focuses on demonstrating intellectual agility and creativity in order to maintain physical wellness while using technology. Examines the effect technological changes have had on various disciplines and their impacts on society in relation to health and wellness. Discusses theories and principles related to the physical, mental, social, and emotional aspects of personal computer usage including cyberspace. Completion of COSC 143 fulfills the Liberal Studies Dimensions of Wellness requirement. Other 143 courses will also fulfill this requirement, and any of these courses may be substituted for each other and may be used interchangeably for D/F repeats but may not be counted for duplicate credit.

COSC 201 Internet and Multimedia 3c-0l-3cr
Prerequisite: BTED/COSC/IFMG 101 or prior exposure to word processing and electronic mail

Focuses on the evaluation of information and multimedia resources available on electronic networks when doing research in an area of one’s choice. An information literacy course for students to gain a more in-depth understanding of the information resources available electronically and of how to utilize them more effectively in communicating. Students learn how to access and utilize these resources for two-way communications and support for decision making while incorporating selected elements in multimedia presentations of their own design. (BTED/COMM/COSC/IFMG/LIBR 201 may be used interchangeably for D/F repeats and may not be counted for duplicate credit.)

COSC 210 Object-Oriented and GUI Programming 3c-0l-3cr
Prerequisite: COSC 108 or 110

An in-depth introduction to the Object-Oriented Programming (OOP) paradigm, including encapsulation, inheritance, and polymorphism. Focuses on designing, implementing, and using objects. Includes an introduction to Graphical User Interface (GUI) design and programming.

COSC 216 Introduction to Cyber Security 3c-0l-3cr
Prerequisite: COSC 110

Introduces the fundamental theory and concepts for cybersecurity including security principles, ethical and professional issues in cybersecurity, attack strategies, risk management, access control, integrity management, cryptography basics, security protocols, and strategies for defending computers and networks. Includes practical hands-on learning activities to enhance understanding and to apply the theory and concepts.

COSC 220 Applied Computer Programming 4c-0l-4cr
Prerequisite: COSC 110 or equivalent

Structured programming principles and techniques, as implemented through the ANSI COBOL language; program design using top-down techniques; program and project documentation; introduction to sequential and random file algorithms and integrated file systems.
COSC 281 Special Topics  
**Prerequisite:** As appropriate to course content  
Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 281 are offered primarily for lower-level undergraduate students.

COSC 300 Computer Organization and Assembly Language  
**Prerequisite:** COSC 110 or equivalent  
A discussion of the basic computer architecture elements: gates, combinational and sequential logic, hardware arithmetic, CPU, and memory structure. An examination of the languages of machines: representation of data, addressing techniques, symbolic coding, assembly, and linking. Problem solving using assembly language.

COSC 310 Data Structures and Algorithms  
**Prerequisite:** COSC 210  
Fundamental concepts of data and design implementation, data abstraction, data structures, arrays, linked-lists, stacks, queues, recursion, trees, graphs, and hashing. Also covers sorting algorithms, divide and conquer techniques, greedy methods, and analysis of algorithms. The object-oriented paradigm is employed using an object-oriented language.

COSC 311 Software Engineering Concepts  
**Prerequisite:** Grade of “C” or better in COSC 310  
Introduces classical software engineering life cycle models and modern agile methodologies. Includes requirements elicitation, specification, design, and testing. Covers metrics, risk mitigation, and other tools required for software development. Students will participate on a team to develop a large-scale software product using an appropriate software engineering methodology.

COSC 319 Introduction to Database Management Systems  
**Prerequisites:** COSC 110, 210  
Provides fundamental knowledge of, and practical experience with, database concepts. Includes study of information concepts and the realization of those concepts using the relational data model. Practical experience gained in designing and constructing data models and using SQL to interface to both multiuser DBMS packages and to desktop DBMS packages.

COSC 343 Introduction to Numerical Methods  
**Prerequisites:** COSC 110, MATH 121 or 125  
Algorithmic methods for function evaluation, roots of equations, solutions to systems of linear equations, function interpolation, numerical differentiation, and integration and use of spline functions for curve fitting. The focus is on managing and measuring errors in computation. Also offered as MATH 343; either COSC 343 or MATH 343 may be substituted for the other and may be used interchangeably for D/F repeats but may not be counted for duplicate credit.

COSC 345 Computer Networks  
**Prerequisites:** COSC 110; MATH 121 or 125; and MATH 214 or 216 or 217; or equivalents  
Covers data communications, computer network architectures, functions of various network layers, communication protocols, internetworking, emerging high-speed networks.

COSC 352 LAN Design and Installation  
**Prerequisite:** BTST 273 or IFMG 250 or COSC 108 or 110  
A study of fundamental local area networking concepts. A detailed study of the basics of local area network (LAN) technology. A comparative study of commercially available LAN systems and products. Features a hands-on laboratory implementation of a LAN. Cross-listed as IFMG 352. Either course may be substituted for the other for D/F repeats but may not be taken for duplicate credit.

COSC 355 Computer Graphics  
**Prerequisites:** Grade of “C” or better in COSC 310 and junior status  
Introduces computer graphics hardware and software. Explores and imple-
ments 2-D and 3-D modeling and transformations, viewing transformations, projections, rendering techniques, lighting, and shading using a current cross-platform 3-D graphics API. Includes creation of complex, photorealistic images, and animation principles.

COSC 356 Network Security  
**Prerequisites:** COSC 216 and either COSC 345 or COSC/IFMG 352  
Explores mechanisms for protecting networks against attacks. Emphasizes network security applications that are used on the Internet and for corporate networks. Investigates various networking security standards and studies methods for enforcing and enhancing those standards.

COSC 362 Unix Systems  
**Prerequisite:** COSC 310 or instructor permission  
An introduction to the features, syntax, applications, and history of Unix. Coverage includes utilities, system administration, development environments, and networking concerns including distributed systems, client-server computing, and providing Web services.

COSC 365 Web Application Development  
**Prerequisite:** COSC 310 and 341  
Covers the fundamental architecture of web-based applications. Presents client-side application development using markup languages such as XHTML/CSS, forms, scripting languages such as JavaScript and PHP, asynchronous updating of data such as AJAX, database access using SQL. Projects include development of distributed applications on the Internet. Includes best practices in usability, internationalization, security, and W3C accessibility standards for web applications.

COSC 380 Seminar on the Computer Profession and Ethics  
**Prerequisite:** Instructor permission  
Reading, review, and discussion of the current literature of computer science and industry trade journals; effective oral presentations; employment prospects. Topics on computer ethics and review of case studies on computer ethics from professional journals with discussion of the issues involved. Should be taken the semester before an internship or the first semester of the senior year. Should not be taken at the same time as COSC 480.

COSC 405 Artificial Intelligence  
**Prerequisite:** Grade of “C” or better in COSC 310  
Introduces the field of artificial intelligence. Explores and implements solutions using classical and modern artificial intelligence techniques. Includes state space search, logical inference, expert systems, optimization, knowledge representation, machine learning, handling uncertainty, and soft computing.

COSC 410 Computer Architecture  
**Prerequisites:** COSC 300, 310  
Introduces the underlying working principles of electronic computers. Discusses the organization and architecture of computer components. Expounds on details of memory hierarchy, I/O organization, computer arithmetic, processor and control unit design, instruction set architecture, instruction-level parallelism, and the ways functional components interact together.

COSC 420 Modern Programming Languages  
**Prerequisite:** COSC 310  
A comparative survey of programming language paradigms. Includes an examination of the properties, applications, syntax, and semantics of selected object-oriented, functional, and declarative programming languages.

COSC 424 Compiler Construction  
**Prerequisites:** COSC 300, 310  
Relates the formal concepts of automata and language theory to the practicality of constructing a high-level language translator. The structures and techniques used in lexical analysis, parsing, syntax-directed translation, intermediate and object code generation, and optimization are emphasized.

COSC 427 Introduction to Cryptography  
**Prerequisite:** COSC 310 and MATH 309  
Covers fundamental concepts of encoding and/or encrypting information,
cryptographic protocols and techniques, various cryptographic algorithms, and security of information in depth

COSC 429 Digital Forensics 3c-0l-3cr
Prerequisites: COSC 110 or equivalent programming course, junior standing or instructor permission
Takes a detailed, hands-on approach to the use of computer technology in investigating computer crime. From network security breaches to child pornography, the common bridge is the demonstration that particular electronic media contains incriminating evidence. Using modern forensic tools and techniques, students learn how to conduct a structured investigative process to determine exactly what happened and who was responsible, and to perform this investigation in such a way that the results are useful in criminal proceedings. Real-world case studies are used to provide a better understanding of security issues. Unique forensics issues associated with various operating systems including Linux/Windows operating systems and associated applications are covered.

COSC 430 Introduction to Systems Programming 3c-0l-3cr
Prerequisites: Grade of “C” or better in COSC 300 and 310 or instructor permission
An in-depth introduction to a systems programming, system programing language(s) and application of those language(s) to systems-level problems. The focus is on programming constructs that are closely aligned with the architecture of a digital computer including those providing portability between platforms, dynamic allocation and management of virtual memory, complex in-memory data structures, reading/writing binary data using sequential and random access, pointer arithmetic/manipulation, and interaction between threads/processes.

COSC 432 Introduction to Operating Systems 3c-0l-3cr
Prerequisites: COSC 300, 310 or equivalents
An introduction to the principles of operating system design and implementation. Topics include interrupt service, process states and transitions, spooling, management of memory and disk space, virtual storage, scheduling processes and devices, and file systems.

COSC 454 Information Assurance Administration 3c-0l-3cr
Prerequisite: COSC 216 or instructor permission
Explores the various issues pertinent to maintaining acceptable levels of information security within organizations. Addresses issues involved in administering and managing information security systems. Intended to raise awareness of information security issues across organizations.

COSC 460 Theory of Computation 3c-0l-3cr
Prerequisite: COSC 310 or instructor permission
Formal methods for describing and analyzing programming languages and algorithms. Covers Backus-Naur forms, productions, regular expressions, introduction to automata theory, Turing machines, and recent concepts in algorithm theory computability.

COSC 465 Distributed Processing and Web Services 3c-0l-3cr
Prerequisites: COSC 365 or 310 and instructor permission
An advanced study into architecture of Internet systems and the process of developing distributed computer applications running on the Internet and/or other networks. Presents an in-depth understanding of distributed processing technologies including socket programming, RPC, RMI, EJBs, DCOM, .NET, SOAP, and Web services. Emphasis is placed on the use of XML to support multi-party heterogeneous distributed applications and includes XML fundamentals (e.g., DTDs, XML schemas, XPath, XSLT, SAX, and DOM), and Web services (e.g., SOAP, WSDL, UDDI, and ebXML). Students complete hands-on projects utilizing mentioned technologies.

COSC 473 Software Engineering Practice 3c-0l-3cr
Prerequisite: COSC 319 or instructor permission
Planning, design, and implementation of large software systems using software engineering techniques. Students work on project teams on real or realistic software development projects. Credit for either COSC 473 or 493, but not both, may count toward computer science major requirements for graduation; the other course credits will be counted as free electives.

COSC 480 Seminar on Technical Topics 0c-1l-1cr
Prerequisites: See text below
Reading, review, and discussion of the current literature of computer science and industry professional and technical journals; oral presentations. Should be taken the last semester of the senior year. Should not be taken at the same time as COSC 380.

COSC 481 Special Topics var-1-3cr
Prerequisite: As appropriate to course content
A seminar in advanced topics of computer science; content varies depending on interests of instructor and students. May be repeated for additional credit. Special Topics numbered 481 are primarily for upper-level undergraduate students.

COSC 482 Independent Study var-1-4cr
Prerequisite: Prior approval through advisor, faculty member, department chair, dean, and Office of the Provost
Students with interest in independent study of a topic not offered in the curriculum may propose a plan of study in conjunction with a faculty member. Approval based on academic appropriateness and availability of resources.

COSC 493 Internship in Computer Science var-6-12cr
Prerequisites: COSC 105, 220 (except Languages and Systems Track), 300, 310, 319, 341, 380, other courses depending on type of internship position desired, completion of application, and selection by a faculty committee. COSC 319, 341, and 380 prerequisite may be waived when registering for first 6cr.
Positions with participating companies provide students with paid experience in computer science under supervision of the companies and faculty. Requirements include three on-site consultations (one during first 6cr and two in final 6cr), two university consultations (one during first 6cr and one in final 6cr), completion of progress reports, oral presentation (final 6cr only), and a final cumulative paper (final 6cr only). An internship is offered only to students who have completed their sophomore year. No more than 3cr of the first 6cr of COSC 493 and 3cr of the last 6cr of COSC 493 may be applied toward the credit-hour requirement for a major in computer science. Internship can be completed as one 12cr unit over a minimum of 23 weeks or in 6cr units each over a minimum of 12 weeks. (Writing-intensive course. As such, an internship requires completion of designated writing-intensive components.)

COUN: Counselor Education
Department of Counseling
College of Education and Communications

COUN 253 Counseling in School Settings 3c-0l-3cr
An elective course providing in-service teachers and school personnel, other than counselors, with a basic understanding of the knowledge, information, and skills appropriate to counseling with individuals and groups. Restricted to peer tutors.

CRIM: Criminology
Department of Criminology and Criminal Justice
College of Health and Human Services

CRIM 101 Crime and Justice Systems 3c-0l-3cr
Introduces the field of criminology through the examination of historical data, statistical information, theories of criminal causation, social control of behavior, development of laws, evaluation of criminal justice system policies, procedures, and trends. Students learn the terminology of the field, gain an awareness of the methods of inquiry utilized in the field, and have the opportunity to examine personal attitudes and values regarding crime and responses to crime.

CRIM 102 Survey of Criminology 3c-0l-3cr
Provides an understanding of the discipline of criminology through an examination of its theories, basic assumptions, and definitions.

CRIM 205 Policing and the Community 3c-0l-3cr
Prerequisite: CRIM 101 or 102
Introduces the history, function, and role of policing in American society.
The multidimensional work of policing is emphasized with particular attention to strategies employed to combat and prevent crime through computer technology and advancements in nonlethal and lethal methods. Organizational and personal selections also are covered, as these are intimately connected to the structure and composition of the communities serviced. Practical and critical approaches to law enforcement are undertaken to explore prevailing and dissenting perspectives on the issues covered.

CRIM 210 Criminal Law 3c-0l-3cr
Prerequisite: CRIM 101 or 102 or departmental permission
A study of the history and sources of criminal law coupled with an analysis of the substantive elements of specific crimes.

CRIM 215 Survey of Courts and the Criminal Justice System 3c-0l-3cr
Prerequisite: CRIM 101 or 102 or departmental permission
Examines the historical background, the traditions, and the legal principles that underlie the courts as an integral component of the American system of criminal justice. Both differences and similarities inherent within the state and federal court processes are analyzed, and the procedures through which the criminal courts uphold the basic rights and liberties of all United States citizens, both victims and the accused, are explored. The dynamics of the judiciary are considered through examination of the critical foundation of the judicial process. A primary focus is placed on understanding the respective roles played by judges, prosecuting attorneys, defense counsel, police, probation officers, and other court-related personnel in the criminal court process.

CRIM 225 Survey of Corrections 3c-0l-3cr
Prerequisite: CRIM 101 or 102 or departmental permission
States and emphasizes the role of corrections in the social control of human behavior. Includes the history of corrections, classic and contemporary thought about the role of corrections in the criminal justice system, and a survey of correctional methods and alternatives with an emphasis on the use of incarceration.

CRIM 235 Survey of Juvenile Justice and Juvenile Law 3c-0l-3cr
Prerequisite: CRIM 101 or 102 or departmental permission
Provides an understanding of the juvenile justice system and the various cases and legislative initiatives that have affected juvenile justice policy, in addition to examining the evolution of the juvenile justice system and the transformation of the current issues in juvenile justice in the United States. Attention is also focused on juvenile justice policies and procedures in other countries.

CRIM 255 Law, Social Control, and Society 3c-0l-3cr
Prerequisite: CRIM 101 or 102 or departmental permission
The evolution and development of the modern legal system. Topics include civil, criminal, and administration law, the legal profession, legal systems in American society, and the law as one of many instruments of social control and social change.

CRIM 281 Special Topics var-1-3cr
Prerequisite: CRIM 101 or 102 or departmental permission
Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 281 are offered primarily for lower-level undergraduate students.

CRIM 306 Criminological Research Methods 3c-0l-3cr
Prerequisites: CRIM 101, 102, junior standing
An introduction to the basic criminological research methods designed to prepare the student to understand and participate in quantitative and qualitative research.

CRIM 321 Cybersecurity and Loss Prevention 3c-0l-3cr
Prerequisite: CRIM 101 or 102
Addresses the cybersecurity threat from a more comprehensive standpoint. Challenges students to recognize and understand security concerns from multiple perspectives, ranging from the insider threat to threats involving the actual physical components. Exposure to a design methodology, associated system components modules, and basic security principles is featured. Students also are exposed to the private and public responses to computer security problems, including the insider threat, domestic and foreign terrorism, and a number of unique computer crimes and solutions to deal with these crimes. The importance of a sound security policy in the overall management of any organization is addressed.

CRIM 323 Cybersecurity and the Law 3c-0l-3cr
Prerequisite: CRIM 101 or 102
Examines the scope of cybercrime and its impact on today's system of criminal justice. Includes cybercrime and the Bill of Rights, computer-based economic crime, electronic commerce, ethical challenges, and the Computer Fraud and Abuse Act. Includes an analysis of the legal considerations facing law enforcement and cybersecurity professionals who deal with the problem of discovering, investigating, and prosecuting cybercrime.

CRIM 344 Terrorism 3c-0l-3cr
Prerequisite: CRIM 101 or 102 or instructor permission
An in-depth study of the legal and international issues that the United States faces in response to combating international terrorism. The emphasis is placed on identifying causes of terrorism and the most plausible threats; terrorist networks, their commonalities and differences, and the difficulty in countering; and determining appropriate responses, to include political and legal implications, threat analysis, physical security, and target hardening. (Also offered as PLSC 344; may not be taken as duplicate credit.)

CRIM 354 White-Collar Crime 3c-0l-3cr
Prerequisite: CRIM 101 or 102
An introduction to various topics and issues relating to white-collar crime. Theories and measurements of white-collar, corporate, organizational, occupational, workplace, and organized crimes are presented and compared. Prevention, legal issues, and control strategies are presented.

CRIM 374 Environmental Crime and Justice 3c-0l-3cr
Prerequisite: CRIM 101 or 102
Introduces the developing area of criminological solutions to environmental problems. Issues addressed include the nature of environmental offenders and victims, the variety of approaches to achieving environmental justice, and criminal justice solutions to specific environmental problems.

CRIM 384 Violence and Victimization 3c-0l-3cr
Prerequisite: CRIM 101 or 102
Introduces the leading theories and research in the area of violent criminal behavior and victimization. A special emphasis is on patterns of violent offending and victimization over time, victim-offender relationships, and the experience of victims in the criminal justice system. Addresses major violent crimes including murder, rape, robbery, and assault.

CRIM 394 Crime and Delinquency Prevention 3c-0l-3cr
Prerequisite: CRIM 101 or 102 or departmental permission
Examines various crime and delinquency prevention policies and programs. Topics include the historical development of crime and delinquency prevention methods, theoretical applications to prevention efforts, and research findings on program effectiveness. The importance of research design in evaluating prevention programs also is considered.

CRIM 400 Theoretical Criminology 3c-0l-3cr
Prerequisites: CRIM 101, 102, junior standing
A review and critical analysis of the major criminological theories beginning with the Classical School; psychological, sociological, economic, biological, and political theories of crime and its causes are included.

CRIM 401 Contemporary Issues in Criminology 3c-0l-3cr
Prerequisites: CRIM 101, 102, junior standing
An examination of the nature and extent of crime in modern western society. Emphasizes issues selected from, but not limited to, emerging patterns of violence, organized crime, white-collar crime, victimless crime, corruption, and those crime control strategies deemed appropriate in a democracy.

CRIM 403 Dilemmas in Criminology and Criminal Justice 3c-0l-3cr
A structured field placement designed to broaden the educational experience and junior standing through observation and participation in work assignments in government.

**Prerequisites:** CRIM 101, 102

Introduces the art of thinking critically about the social construction of race, ethnicity, and social class in crime and crime control, with special focus on the United States.

**Prerequisites:** CRIM 101, JRNL 105, or COMM 101, or departmental permission

An examination of the portrayal of crime in the media (television, film, newspapers, music, video games, electronic/Internet). This includes, but is not limited to, victims, offenders, criminal justice actors, and the criminal justice system. Of importance is how the media select what is newsworthy and how they describe and/or alter criminal justice issues. Attention is paid to the media’s influence on perceptions of crime, the ethics behind the media’s perceptual influence, criminology and criminal justice issues of the general population and the resultant criminal justice policies. Seminar based. (Also offered as COMM 420; may not be taken as duplicate credit.)

**Prerequisites:** CRIM 101 or 102

A study of the nature and extent of women’s crime, theories of female criminality, processing of women offenders through the criminal justice system, the response of police and court officials to women as victims of crime, and opportunities for women as employees in criminal justice agencies.

**Prerequisites:** CRIM 101 or 102

A comparison of American systems of administration of justice with those of other nations.

**Prerequisites:** CRIM 101, 102, prior approval through advisor, faculty member, and Office of the Provost

Students with interest in independent study of a topic not offered in the curriculum may propose a plan of study in conjunction with a faculty member. Approval is based on academic appropriateness and availability of resources.

**Prerequisites:** CRIM 101, 102, 12cr from CRIM courses, 2.5 overall GPA, and junior standing

A structured field placement designed to broaden the educational experience through observation and participation in work assignments in government or private sectors. Six credits can be applied to the major requirements.

**Prerequisites:** CRIM 101, 102, junior standing

An overview of prominent ethical issues facing professionals in criminology and criminal justice, with an emphasis on encouraging individual students to explore their own ethical and moral systems and how they make ethical/moral decisions. Primarily discussion/seminar oriented.

**Prerequisites:** CRIM 101, 102

**CRG 402 Media Portrayal of Crime** 3c-0l-3cr

An examination of the portrayal of crime in the media (television, film, newspapers, music, video games, electronic/Internet). This includes, but is not limited to, victims, offenders, criminal justice actors, and the criminal justice system. Of importance is how the media select what is newsworthy and how they describe and/or alter criminal justice issues. Attention is paid to the media’s influence on perceptions of crime, the ethics behind the media’s perceptual influence, criminology and criminal justice issues of the general population and the resultant criminal justice policies. Seminar based. (Also offered as COMM 420; may not be taken as duplicate credit.)

**Prerequisites:** CRIM 101, JRNL 105, or COMM 101, or departmental permission

Introduces the art of thinking critically about the social construction of race, ethnicity, and social class in crime and crime control, with special focus on the United States.

**Prerequisites:** CRIM 101, JRNL 105, or COMM 101, or departmental permission

An examination of the portrayal of crime in the media (television, film, newspapers, music, video games, electronic/Internet). This includes, but is not limited to, victims, offenders, criminal justice actors, and the criminal justice system. Of importance is how the media select what is newsworthy and how they describe and/or alter criminal justice issues. Attention is paid to the media’s influence on perceptions of crime, the ethics behind the media’s perceptual influence, criminology and criminal justice issues of the general population and the resultant criminal justice policies. Seminar based. (Also offered as COMM 420; may not be taken as duplicate credit.)

**Prerequisites:** CRIM 101 or 102

A study of the nature and extent of women’s crime, theories of female criminality, processing of women offenders through the criminal justice system, the response of police and court officials to women as victims of crime, and opportunities for women as employees in criminal justice agencies.

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Students with interest in independent study of a topic not offered in the curriculum may propose a plan of study in conjunction with a faculty member. Approval is based on academic appropriateness and availability of resources.

**Prerequisites:** CRIM 101, 102, 12cr from CRIM courses, 2.5 overall GPA, and junior standing

A structured field placement designed to broaden the educational experience through observation and participation in work assignments in government or private sectors. Six credits can be applied to the major requirements.
DANC 351 Choreography 3c-0l-3cr
Prerequisites: Three introductory- or advanced-level dance classes from DANC 250, 260, 270, 280, 290, 485, or instructor permission
Introduces the necessary choreographic tools needed to manipulate dance as a medium to create dance works. Students learn and use various approaches to the choreographic process to create dance works, one of which will be presented in a public showing at the end of the semester.

DANC 353 Dance Curriculum and Instruction 3c-0l-3cr
Prerequisites: Three introductory- or advanced-level dance classes from DANC 250, 260, 270, 280, 290, 485, or instructor permission
Introduces the necessary teaching skills and curriculum development needed to understand the pedagogical structure for teaching dance. Students learn the approaches to teaching that are unique to dance and will learn to design dance curriculum.

DANC 355 Dance Production: Administration to Creation 3c-0l-3cr
Prerequisites: Two introductory- or advanced-level dance classes from DANC 250, 260, 270, 280, 290, 485, or instructor permission
A sequential development of the dance production process from audition to opening, focusing on the practical application to private studio and academic and professional settings. Explores the evolution of dance production and the future of dance, from both administrative and artistic perspectives, taking into consideration the constantly changing world of technology.

DANC 485 Dance Studio 3c-0l-3cr
Prerequisite: DANC 250 or 260 or 270 or 280 (beginning technique class taken must be the specific dance genre of the Dance Studio class offered); or by instructor permission
Furthers the development of the dancer at the intermediate level of a specified genre of dance. Development in dance requires the integration of both technique and artistic development. The specific genres vary from semester to semester, including modern, ballet, tap, and jazz as alternating semester options. May be repeated with a different focus each time.

DISB: Disability Services
Department of Communication Disorders, Special Education, and Disability Services
College of Education and Communications

DISB 103 Special Education Technology 3c-0l-3cr
Addresses the use of assistive technology in the classroom in areas of communication, mobility, education, recreation, vocation, independence, and therapy/rehabilitation. Emphasizes developing awareness of the diversity of assistive technology currently available for individuals with disabilities. Presents specific applications of assistive technology devices, which improve and maintain the functioning capabilities of individuals with disabilities. Includes independent learning activities and information that enables the students to gather information about assistive technology devices, companies, and related services. (Also offered as EDEX 103; may not be taken for duplicate credit.)

DISB 111 Introduction to Exceptional Persons 3c-0l-3cr
Prerequisites: Department majors, dual majors, ECED majors, minors, and official incoming transfers only
Surveys characteristics, needs, problems, and behavior patterns of individuals who have disabilities or who are gifted. Develops an understanding and knowledge of individuals with sensory, behavioral, physical, cognitive, language, and learning disabilities. Includes history and legislative bases of special education. (Also offered as EDEX 111; may not be taken for duplicate credit.)

DISB 114 Atypical Development in Infants, Children, and Adolescents 3c-0l-3cr
Prerequisites: PSYC 101, DISB/ EDEX 111
Emphasizes foundations of human growth from conception to age 21, plus atypical development related to special needs with regard to cognitive, physical, and social-emotional development. Provides a foundation for the understanding of the needs of students with developmental disabilities ranging from early intervention to the end of their high school years. (Also offered as EDEX 111; may not be taken for duplicate credit.)

DISB 201 Customized Employment: Disability Awareness 3c-0l-3cr
A historical perspective and stereotypical treatment of persons with disabilities, the impact of community integration and empowered living for persons with disabilities, the capabilities and challenges faced by persons with various disabilities. Also considers how current issues, such as health care, housing, Social Security, and employment, have on the lives of persons with disabilities.

DISB 202 Customized Employment: Service Coordination 3c-0l-3cr
Prerequisite: DISB 201
An overview of the Intellectual and Developmental Disability Service system, consumer controlled services and available waivers for persons with disabilities. Also makes the distinction between supported employment and customized employment and the supports available in print, via the Intellectual and Developmental Disability Service System agencies and legislation.

DISB 340 Introduction to Behavior Management in Special Education 3c-0l-3cr
Prerequisites: EDEX/DISB 111,114, PSYC 101
An overview of systematic behavioral change techniques for use with students in a variety of special education settings, including integrated, resource, self-contained, special school, and residential. Emphasizes a case analysis approach to creating and evaluating behavioral changes for students with mild to severe disabilities. (Also offered as EDEX 340; may not be taken for duplicate credit.)

DISB 403 Customized Employment: Assessment and Job Development 3c-0l-3cr
Prerequisite: DISB 302
A holistic approach to providing job-coach services in community setting. Content emphasizes understanding the processes involved in bringing a consumer through the Vocational/Transition Assessment process, developing and analyzing potential jobs based on consumer assessment data, the development and implementation of accommodations for consumers with behavioral/psychiatric disorders, as well as the impact the American with Disabilities Act has on the provision of Job Coaching services.

DISB 404 Customized Employment: Systematic Instruction and Fading 3c-0l-3cr
Prerequisite: DISB 403
A holistic approach to providing job coach services in community setting. Content emphasizes understanding the three essential components of systematic instruction, the development and implementation of instructional programs that include comprehensive fading and follow-up plans and the collection, graphing, and analysis of the assessment, instructional, and follow-up data.

DISB 440 Ethical and Professional Behaviors 1c-0l-1cr
Prerequisites: Disability services major, junior standing, 2.75 GPA
Emphasizes ethical and professional behavior for educational professionals working with individuals with special needs. Focuses on responsible and ethical conduct as it relates to interaction with students and other professionals in direct service, instructional, and/or supervisory roles. Addresses legal implications related to these roles. (Also offered as EDEX 440; may not be taken for duplicate credit.)

DISB 458 Transition Assessment and Planning for Youth with Disabilities 3c-0l-3cr
Reviews litigation and legislation leading to the legal requirement for the provision of transition planning for adolescents with disabilities to include post-secondary education and training, employment, and community living outcomes. Develops competencies in the skills necessary to help students with disabilities make a successful transition from school to adult life. Addresses the importance self-determination and other personal-social characteristics that must be identified and supported by the transition team throughout the transition planning/implementation process. (Also offered as EDEX 458; may not be taken for duplicate credit.)
DISB 460 Family Perspectives on Disability 3c-0l-3cr  
Prerequisite: PSYC 101  
Critically examines families as competent and resourceful systems, students explore ways to collaborate effectively with family members. Focuses on legal and philosophical bases for supporting families in making important decisions affecting the education and care of their children. (Also offered as EDEX 460; may not be taken for duplicate credit.)

DISB 469 Education of Persons with Emotional/Behavioral Disorders, Learning Disabilities, or Brain Injury 3c-0l-3cr  
Focuses on major theoretical positions regarding etiology of emotional/behavioral disorders, learning disabilities and brain injury; definition and identification of the populations; and educational approaches. Reviews research in the field, including current issues, trends, educational practices, and services. Uses a variety of instructional approaches (e.g., cooperative learning, simulations, role-playing) to facilitate acquisition of new knowledge and skills. (Also offered as EDEX 469; may not be taken for duplicate credit.)

DISB 478 Education of Persons with Intellectual/Developmental Disabilities and Physical/Multiple Disabilities 3c-0l-3cr  
Focuses on major theoretical positions regarding etiology of intellectual disabilities, developmental disabilities, a wide and diverse range of physical/multiple disabilities, and other health impairments. Discusses definitions, population characteristics, and educational approaches. Reviews research in the field, including current issues, trends, practices, and services. (Also offered as EDEX 478; may not be taken for duplicate credits.)

DISB 493 Internship/Field Training var-12cr  
Prerequisites: DISB 440 and 2.75 GPA  
Allows the intern to demonstrate competencies working in a public or private agency providing educational/rehabilitation services. This may include, but not be limited to, writing and analyzing comprehensive evaluation reports, counseling individuals with disabilities, understanding agency and/or service delivery responsibilities and limitations, referral and follow-up processes, and use of various assessment approaches in evaluating an individual’s capacity to function independently in a broad range of community settings. (Offered as EDEX 493 before 2017-18.)

DVST 1070 Reading Skills for College Study 3c-0l-3cr  
Note: Students who score 77 and below on the COMPASS post-test (administered at the end of this course) are required to enroll in DVST 110 the following semester. Assists in the development of college-level reading skills with an emphasis on textbook reading. Includes literal and critical comprehension skills, vocabulary development, and reading efficiency. Carries institutional, nondegree credit, and attendance is required.

DVST 083 Introduction to College Math 3c-0l-3cr  
Prerequisite: May not be taken after successfully completing any course offered by the Mathematics Department without written approval of the Department of Developmental Studies chair  
For students who need to develop the basic mathematical skills that are essential to success in more advanced college-level work. Content material includes computational skills of whole numbers, fractions, percent, data analysis, graphs, statistics, properties and operations on real numbers, simplifying algebraic expressions, and solving equations and inequalities. Carries institutional, nondegree credit. (Offered as DVST 095 before 2015-16.)

DVST 093 Developmental Mathematics, Elements of Algebra 1c-0l-1cr  
Prerequisite: May not be taken after successfully completing any course offered by the Mathematics Department without written approval of the Department of Developmental Studies director  
Introduces algebraic concepts and algorithms with a comparison of arithmetic algorithms to associated algebraic algorithms. Topics include properties and operations on real numbers, simplifying expressions, order of operations, solving equations and inequalities, formulas, exponential and scientific notation, and operations on polynomials. Carries institutional, nondegree credit. Attendance is required.

DVST 110 Introduction to Critical Reading and Thinking 2c-0l-2cr  
Focuses on the development and mastery of skills related to the processes of understanding, analyzing, and assessing college-level texts and other academic readings. Synthesizes written information from a variety of sources and content areas. Note: For sections paired with specific content-area course sections, students are required to register for both courses.

DVST 150 Introduction to Higher Education 1c-0l-1cr  
Introduces the system of higher education and skills that promote effective educational planning and academic success. Orientates students to the systems, resources, policies, and procedures of IUP and to the Liberal Studies curriculum. Emphasizes goal setting, decision making, self-monitoring, and time-management skills.

DVST 160 Learning Strategies 1c-0l-1cr  
Encourages students to develop and use effective and efficient study strategies on a consistent basis. Students examine academic goals and implement study strategies to help achieve those goals. Includes the topics of goal setting and self-monitoring, learning styles, test preparation and test taking, lecture and textbook note taking, time management and concentration, and general strategies for learning. Students are required to give evidence of application of the study strategies to other courses in which they are currently enrolled. Active participation in class meetings is expected.

DVST 170 Career Exploration 1c-0l-1cr  
Introduces the theoretical and practical framework with which to explore careers compatible with overall academic skills, aptitudes, and life goals. Students examine the world of work, assess their interests and abilities, and make realistic decisions on academic majors and careers. (Cross-listed as ADVT 170. These courses may be substituted for each other and be used interchangeably for D/F repeats but may not be counted for duplicate credit.)

DVST 200 Academic Transition Seminar 1c-0l-1cr  
Prerequisite: Recommended for students from regional campuses  
Acclimates the student to the curricular and co-curricular experience of the main campus of IUP. Emphasizes campus systems and resources, the application of theories of change as related to transition, and major and career planning as lifelong learners. Recommended for transfer students, particularly targeting students moving from a satellite campus to the Indiana campus.

DVST 250 Role of the Peer Educator: Theory, Practice, and Assessment 1c-0l-1cr  
Prerequisite: Instructor permission  
Prepares selected students for the role of a peer educator within the higher education setting. Topics include student learning and problem solving, facilitative helping and interpersonal communication, peer leadership, and assisting peers with how to effectively and efficiently succeed at the college level. (Roles include supplemental instruction leader, tutor, peer advisor, workshop leader.)

ECED: Early Childhood Education  
Department of Professional Studies in Education  
College of Education and Communications  
Note: Early childhood education courses are restricted to majors with a 3.0 cumulative GPA.

ECED 112 Childhood Development Birth–Age 5 3c-0l-3cr  
Presents the foundations, theoretical, and practical aspects of the development of young children, focusing on various learning theories/theorists and the developmental stages and needs of children from birth through age five. Examines the various stages of child development with a focus on a review of the research, theories, and theoretical program models, and types of early childhood programs; discusses available community resources, professional organizations, and standards of ethical behavior and practice all in an explo-
ration of child development and contemporary educational, cultural, social, and emotional issues for children, ages birth to five and their families.

ECED 117 Family, Community, and School Relationships in a Diverse Society 2c-0l-2cr
Students develop a strong understanding and deep appreciation of the diversity among families, communities, and school cultures in the United States. Students gain the ability to locate and develop curricular materials and teaching strategies appropriate to this country’s diversity.

ECED 200 Introduction to Early Childhood Education 3c-0l-3cr
Prerequisite: Early childhood education/special education major or early childhood education major
Introduces prospective teachers to the historical, sociological, and political aspects of early childhood education. An emphasis is placed on appreciating diversity in the early childhood classroom and on developing keen observation strategies to both heighten understanding of children and evaluate programs that serve them.

ECED 215 The Developing Child: K-4th Grade 3c-0l-3cr
Introduces the interrelationships among the various aspects of child development in grades K-4, its relevant theories and educational applications. Through literature review, critique of theories, observation, and large and small group activities, students learn child development principles and how they may be applied in K-4 educational settings to foster successful learning. (Offered as ELED 215 Child Development before 2015-16.)

ECED 220 Differentiating Literacy Instruction through Children’s Literature 3c-0l-3cr

ECED 221 Literature for the Young Child and Adolescent 3c-0l-3cr
Prerequisite: Early childhood education/special education major
A survey of literature for children from preschool to adolescence. Selection and evaluation criteria for various genres, including visual and literary elements, are the foundation. Emphasis will also be placed on multicultural literature and literature for diverse learners. Stresses motivational approaches for encouraging children’s engagement with and response to literature.

ECED 250 Language Development 3c-0l-3cr
Prerequisite: Early childhood education/special education major or early childhood education major
Acquaints students with the process of children’s language acquisition and development through expressive skills and language comprehension. Observation, documentation, and assessment of language development across the areas of listening, speaking, writing, drawing, and reading are explored from both a theoretical and practical perspective.

ECED 280 Maximizing Learning: Engaging All PreK to Grade 4 Learners 3c-0l-3cr
Prerequisites: Early childhood education/special education majors or early childhood education majors only
Examines competencies specific to the science of teaching, the organization and management of functional learning environments, and the design, implementation, and evaluation of developmentally appropriate learning experiences. Areas explored include models of teaching, lesson and unit planning, and creating a classroom environment that is conducive to learning.

ECED 310 Science, Health, and Safety for All PreK to Grade 4 Learners 3c-0l-3cr
Prerequisites: Early childhood education/special education major or early childhood education major, admission to Teacher Education Step 1
Examines strategies for teaching science and health concepts; design of lessons that integrate science, health, and safety; and learning how to become role models for children. Students develop knowledge of how to design lessons with appropriate content and methods for young children.

ECED 351 Literacy for the Emergent Reader: PreK to Grade 1 Learners 3c-0l-3cr
Prerequisites: Early childhood education/special education major or early childhood education major, admission to Teacher Education Step 1
Provides early childhood teachers with various strategies, techniques, and materials related to developing early literacy in children. Current research and practical applications are interwoven to ensure a systematic coverage of the most recent methods and best practices. Focuses on the development of speaking, listening, reading, and writing skills for preK to grade 1 learners.

ECON: Economics
Department of Economics
College of Humanities and Social Sciences

ECON 101 Basic Economics 3c-0l-3cr
Scarcity, role of prices in determining production and the allocation of resources, business cycle analysis, policy options for reducing unemployment and inflation, economic role of government, international trade, and selected current economic problems are studied. For those who do not plan to take more than 3cr of economics. Note: May not be taken after successful completion of or concurrent registration in any other economics course.

ECON 121 Principles of Macroeconomics 3c-0l-3cr
Nature and methodology of economics; mixed capitalism and market economy; national income; employment theory, including economics of fiscal policy; money, banking, and Federal Reserve System; international trade and finance.
ECON 122 Principles of Microeconomics 3c-0l-3cr
Economics of the firm; theory of consumer demand; determination of price and output in different market structures; distribution of income; economic growth.

ECON 143 Financial Wellness 3c-0l-3cr
Theories and principles related to the physical, social, and emotional wellness aspects of individual money management. Information is focused on building a sound financial foundation as a college student and can be applied throughout the life span to ensure future financial well-being. Successful completion fulfills the Liberal Studies Dimensions of Wellness requirement.

ECON 223 Economics of Crime 3c-0l-3cr
Economic analysis of criminal activity and its impact on the allocation of scarce resources. Uses fundamental economic models to explain crimes against people, property crime, “victimless crime,” and organized crime.

ECON 239 Economics of Sports 3c-0l-3cr
Introduces and develops the economic way of thinking as it applies to the sports industry. Topics covered include the organizational structure of the major American sports leagues (e.g., revenue sharing, salary restrictions, and competitive balance), labor issues in sports (e.g., free agency, reserve clause, unions, strikes, and discrimination), the legal relationship between sports and government (e.g., the relationship between antitrust law and sports), and the issue of sports and public finance (e.g., location and financing of sports franchises and public ownership of stadiums and arenas).

ECON 281 Special Topics var-1-3cr
Prerequisite: As appropriate to course content
Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 281 are offered primarily for lower-level undergraduate students.

ECON 325 Monetary Economics I 3c-0l-3cr
Prerequisites: ECON 121, 122
Organization, operation, and economic significance of US monetary institutions; commercial banks and Federal Reserve System; survey of monetary theory and policy; mechanism of international payments.

ECON 326 Monetary Economics II 3c-0l-3cr
Prerequisite: ECON 325 or instructor permission
A detailed study of monetary theory; tasks of central banking; principal objectives of monetary policy; intensive study of recent monetary experience; complementary and competing aims of monetary and fiscal policy.

ECON 330 Labor Economics 3c-0l-3cr
Prerequisites: ECON 121, 122
History, structure, and operation of trade unions and employer organizations; major federal labor legislation; collective bargaining theory; wage determination; current labor problems.

ECON 331 Industrial Organization 3c-0l-3cr
Prerequisite: ECON 122 or instructor permission
Social effectiveness of industries analyzed through measures of market structure, market conduct, and market performance.

ECON 334 Managerial Economics 3c-0l-3cr
Prerequisites: ECON 121, 122, MATH 121 or equivalent
Applications of economic theory using algebra, elementary statistics, and calculus to solve managerial optimization problems including problems of forecasting and risk.

ECON 335 Public Finance 3c-0l-3cr
Prerequisites: ECON 121, 122 or instructor permission
Taxation and expenditure theory at the federal level; federal budget and debt considerations; public sector impact on economy.

ECON 338 Poverty in Africa 3c-0l-3cr
Prerequisite: ECON 101 or 121 or 122
Examines African poverty as an economic as well as a social phenomenon. It investigates the many sided nature of poverty and the importance of going beyond generalizations about the poor, including the various causes of poverty in Africa. It stresses the powerful ill effects of a combination of sluggish past economic growth, widening income inequalities, and anti-poverty strategies implemented by many African nations.

ECON 339 Economic Development I 3c-0l-3cr
Prerequisites: ECON 121, 122 or instructor permission
Introduces the following concepts: theory of growth; theory of economic development of underdeveloped countries.

ECON 343 Economic History of the United States 3c-0l-3cr
Prerequisite: ECON 101 or 121 or 122
Applications of economic theory and models of economic development to the main patterns of US postrevolutionary growth; emphasizes the history of economic development as a laboratory for testing economic hypotheses.

ECON 345 International Trade 3c-0l-3cr
Prerequisites: ECON 121, 122 or instructor permission
A study of the microeconomic segment of international specialization and exchange, including theories of international trade and their application to commercial policies, historical survey and examination of current problems of international trade, and the institutional setting of international trade.

ECON 346 International Finance 3c-0l-3cr
Prerequisites: ECON 121, 122 or instructor permission
A study of the macroeconomic segment of international specialization and exchange, including analysis of balance of payments, exchange rates, and the mechanism of international economic and monetary adjustments; international macroeconomic policy; historical survey and examination of current international financial problems; and the institutional setting of international payments.

ECON 356 Introduction to Econometrics 3c-0l-3cr
Prerequisite: ECON 355 or its equivalent or instructor permission
An introduction to econometrics, including linear normal regression models of two or more random variables, special econometric problems, and solutions of simultaneous equations.

ECON 360 Health Economics 3c-0l-3cr
Prerequisite: ECON 122
Analyzes the market for healthcare: demand by individual consumers and supply by health workers and hospitals. Considers the problems of information, risk, and externalities in making health decisions and the role of insurance. Explores public health policies, both in a world and domestic context. Introduces economic methods for program/policy research: elasticity estimation, cost-benefit analysis, and supply-demand modeling.

ECON 361 Environmental Economics 3c-0l-3cr
Prerequisite: ECON 101 or 122
An examination of economic costs and benefits of environmental control and modification. Techniques of economic analysis are used to understand economic aspects of environmental problems and contribute toward their solution.

ECON 362 Global Poverty and Health 3c-0l-3cr
Prerequisite: ECON 122
Researches information related to global trends in health and poverty and examines theories related to the economic, social, and political forces behind these trends. Economically analyzes the barriers preventing greater access to and usage of health services in poor communities, such as asymmetric information, monopoly provision, and externalities. Critically examines health service provision from opposite economic spectrums: (1) as Global Public Goods and (2) as micro-programs targeting specific populations. Covers case studies of health initiatives in developing countries and their economic impacts.

ECON 365 Economics of Tourism 3c-0l-3cr
Prerequisite: ECON 101 or 121 or 122; or instructor permission
Examines the importance of tourism and the travel industry. Examines economic applications to tourism and each of the segments of the travel industry, including transportation, accommodations, food, and attractions and entertainment from both a domestic and international perspective.
ECON 421 Macroeconomic Analysis 3c-0l-3cr
**Prerequisites:** ECON 121, 122 or instructor permission
Emphasizes aggregate income levels and problems of unemployment, inflation, and growth. Covers consumption and investment theories and the role of fiscal and monetary policy.

ECON 422 Microeconomic Analysis 3c-0l-3cr
**Prerequisites:** ECON 121, 122, MATH 121 or equivalent
Consumer behavior, theory of the firm, theory of exchange, market structures, distribution, general equilibrium theory, welfare economics.

ECON 456 Advanced Econometrics 3c-0l-3cr
**Prerequisite:** ECON 356 or equivalent or instructor permission
Provides a more thorough understanding of the theory and practice of econometrics introduced in ECON 356. Students increase their proficiency in econometric analysis and improve their research skills by extending their research agendas begun in ECON 356 and through exposure to the scholarly literature. Students learn about a variety of topics related to regression analysis, including violations of the Classical assumptions, extensions of the basic regression model, and advanced techniques.

ECON 462 Energy Economics 3c-0l-3cr
**Prerequisites:** ECON 122 or equivalent and MATH 115 or 121 or equivalent
Focuses on a variety of energy-related topics from an economics perspective. Topics include energy demand and supply, market structure and energy pricing, renewable and nonrenewable sources of energy, environmental impacts of energy use, climate change, and energy policy.

ECON 480 Seminar 3c-0l-3cr
**Prerequisite:** Instructor permission
A seminar in selected economic issues or problems.

ECON 481 Special Topics var-1-3cr
**Prerequisite:** Instructor permission
Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 481 are primarily for upper-level undergraduate students.

ECON 483 Honors Thesis var-1-6cr
**Prerequisites:** Admission to departmental honors program; prior approval through advisor, faculty member, department chair, dean, and Office of the Provost
An intensive, focused study involving independent research culminating in a written thesis approved by a thesis director and two faculty readers/committee members. May be taken more than once to a maximum of 6cr.

ECON 493 Internship in Economics var-2-12cr
**Prerequisites:** Economics major who has completed at least 12cr in economics and has at least a 2.5 GPA in the major and in all course work
Provides on-the-job experience in economics positions with private and governmental employers. The student is also required to complete related academic work in the form of papers and selected readings. Number of credits earned depends on the nature of the job and amount of time involved in internship. A maximum of 6cr earned in this course may be counted toward the 30cr in economics requirement for economics majors.

ECON 493 Internship in Economics var-2-12cr
**Prerequisite:** Early childhood education/special education major or early childhood education major
Provides teacher candidates with the knowledge and skills necessary to incorporate creative music, art, drama, movement, and play activities into a comprehensive early childhood inclusive curriculum. How integration of creative experiences and play will enhance and encourage the development of all PreK to grade 4 learners is emphasized, as is the historical, theoretical, and research base for the integration of play and creative experiences into a fully inclusive classroom.

ECON 493 Internship in Economics var-2-12cr
**Prerequisite:** Early childhood education/special education major
An overview of classroom organization and management, along with systematic behavior change techniques required for effective teaching and enhanced student learning for all children in PreK through grade 4 and students identified with special needs or at-risk through grade 8. The research-based classroom management and behavioral techniques can be used to create a positive learning environment for all students in an inclusive setting.

ECSP 340 Introduction to Classroom and Behavior Management 3c-0l-3cr
**Prerequisite:** Early childhood education/special education major
An overview of classroom organization and management, along with systematic behavior change techniques required for effective teaching and enhanced student learning for all children in PreK through grade 4 and students identified with special needs or at-risk through grade 8. The research-based classroom management and behavioral techniques can be used to create a positive learning environment for all students in an inclusive setting.

ECSP 440 Professional Seminar: Teacher as Researcher and Advocate for All PreK to Grade 4 Learners 2c-0l-2cr
**Prerequisites:** Admission to departmental honors program; prior approval through advisor, faculty member, department chair, dean, and Office of the Provost
Focuses on children from birth to adolescence.

ECSP 440 Professional Seminar: Teacher as Researcher and Advocate for All PreK to Grade 4 Learners 2c-0l-2cr
Facilitates work in engaging in informed advocacy efforts on behalf of children and the profession and examining the theoretical and research base for classroom practices.

EDEX: Education of Exceptional Persons Department of Communication Disorders, Special Education, and Disability Services College of Education and Communications

EDEX 103 Special Education Technology 3c-0l-3cr
**Prerequisite:** Department majors, dual majors, ECED majors, minors, and official incoming transfers only
Addresses the use of assistive technology in the classroom in areas of communication, mobility, education, recreation, vocation, independence, and therapy/rehabilitation. Emphasizes developing awareness of the diversity of assistive technology currently available for individuals with disabilities. Presents specific applications of assistive technology devices, which improve and maintain the functioning capabilities of individuals with disabilities. Includes independent learning activities and information that enables the students to gather information about assistive technology devices, companies, and related services. (Also offered as DISB 103; may not be taken for duplicate credit.)

EDEX 110 Introduction to Special Needs PreK to Grade 8 3c-0l-3cr
**Prerequisite:** Department majors, dual majors, ECED majors, minors, and official incoming transfers only
Surveys characteristics, needs, problems, and behavior patterns of any child who deviates sufficiently from typical to be considered disabled or at risk for disability. Emphasizes understanding and knowledge of individuals with sensory, behavioral, physical, cognitive, language, and learning disabilities. Includes history and legislative bases of special education. (Also offered as DISB 111; may not be taken for duplicate credit.)

EDEX 111 Introduction to Exceptional Persons 3c-0l-3cr
**Prerequisites:** Department majors, dual majors, ECED majors, minors, and official incoming transfers only
Surveys characteristics, needs, problems, and behavior patterns of individuals who have disabilities or who are gifted. Develops an understanding and knowledge of individuals with sensory, behavioral, physical, cognitive, and learning disabilities. Includes history and legislative bases of special education. (Also offered as DISB 111; may not be taken for duplicate credit.)
EDEX 114 Atypical Development in Infants, Children, and Adolescents  
3c-0l-3cr  
Prerequisites: PSYC 101, DISB/EDEX 111  
Emphasizes human growth from conception to age 21, plus the understanding of the needs of students with developmental disabilities ranging from early intervention to the end of their high school years. (Also offered as DISB 111; may not be taken for duplicate credit.)

EDEX 222 Methods of Teaching Language Arts to  
Secondary Students with Disabilities  
2c-0l-2cr  
Prerequisites: EDEX 111, 3.0 GPA, secondary education major  
Provides intensive methods for secondary students with disabilities in literacy (reading, writing, and listening). Focuses on basic concepts of remedial literacy instruction and specially designed instruction for secondary-aged students with diverse needs. Reviews research in the field, including current issues, trends, practices, and services. Organized around critical areas of literacy instruction and study skills. Examines issues and practices related to students who are English language learners. A variety of instructional approaches (e.g., cooperative learning, simulations, role-playing) are used to facilitate the acquisition of new skills.

EDEX 223 Reading Methods and Strategies for  
Students with Disabilities  
3c-0l-3cr  
Prerequisites: EDEX 103, 111, 113  
Focuses on basic concepts of developmental reading instruction and specially designed instruction for students with diverse needs. Reviews research in the field, examines necessary assessment tools, and surveys current issues, trends, practices, and services. Examines issues and practices related to students who are English language learners. Facilitates the acquisition of new skills through a variety of instructional approaches (e.g., cooperative learning, simulations, role-playing).

EDEX 231 Methods of Teaching Content Area Subjects  
to Persons with Disabilities  
3c-0l-3cr  
Prerequisite: EDEX 111  
Presents various ways of assessing student knowledge and identifying and implementing evidence-based practices to increase the success of students with disabilities in social studies and science in K-12. Examines best practices for understanding and evaluating curricular demands, monitoring student progress, providing tiered supports, and appropriate accommodations for promoting and enhancing content-area learning.

EDEX 269 Identifying and Understanding Children with Academic and Social Learning Needs from  
Preschool through Adolescence  
3c-0l-3cr  
Prerequisites: EDEX 110 or 111, early childhood education/special education majors only  
Focuses on evidence-based practices for educating children with special needs for academic instruction and/or social and emotional learning. Reviews literature on characteristics of students with learning and behavior problems and summarizes research on academic interventions, classroom climate, social and emotional learning, and self-regulation strategies. Applies social and behavioral learning theories to management of academic and social instruction. A variety of instructional approaches (e.g., case studies, simulations) are used to facilitate acquisition of new knowledge and to apply the knowledge to educational settings.

EDEX 278 Identifying and Understanding Children with Significant Adaptive Behavior and Learning Needs from Birth through Adolescence  
3c-0l-3cr  
Prerequisites: Early childhood education/special education majors only  
Focuses on major theoretical principles and basic knowledge regarding the nature and characteristics of children with significant adaptive behavior and learning needs. Presents practical information and explores the positive potential of children with significant needs. Introduces the legal foundation and federal regulations of IDEA that guide the assessment and instructional planning to include the Individual Family Service Plan (IFSP) and the Individualized Education Program (IEP). Examines information that is critical and generic to instruction in all domains and content areas.

EDEX 300 Education of Students with Disabilities in  
Inclusive Elementary Classrooms  
2c-0l-2cr  
Prerequisites: Early childhood education/preK-grade 6 and elementary education majors only, to be taken only during the semester of the designated methods courses  
Examines the issues associated with education of students with diverse learning needs, particularly those with disabilities or who are at risk for school failure. Emphasizes special education, particularly the legal rights of students with exceptionalities and their parents and the responsibilities of educators in addressing those rights. Examines the differential impact of student characteristics on elementary-level school performance and instructional methods proven to be effective in educating students with disabilities and learning style differences.

EDEX 301 Education of Students with Disabilities in  
Inclusive Secondary Settings  
2c-0l-2cr  
Prerequisite: Secondary education majors and others who will be certified to teach content from K-12  
Recommendation: Strongly recommended that this course be taken in the same semester as the designated methods course.

EDEX 321 Methods of Teaching Language Arts to  
Persons with Disabilities  
3c-0l-3cr  
Prerequisites: EDEX 111, 222, SPLP 254, 3.0 GPA  
A review of typical and atypical characteristics of learners with disabilities in relationship to the language arts. Examines issues related to the preparation and execution of units of instruction in language arts for persons with mental and/or physical disabilities as well as issues and practices related to students who are English language learners. Stresses the use of diagnostic and prescriptive approaches to the integration of language arts across the curriculum with an emphasis on reading.

EDEX 323 Instruction of English Language Learners with Special Needs  
3c-0l-3cr  
Prerequisites: EDEX 111, SPLP 254, 3.0 GPA  
Provides future teachers with the necessary methods to meet the needs of English language learners with special needs in the classroom. Based on knowledge of the behaviors, beliefs, and attitudes of a multicultural approach to learning, instructional methods, appropriate assessment and language acquisition techniques, and use of varied resources are included.

EDEX 340 Introduction to Behavior Management in  
Special Education  
3c-0l-3cr  
Prerequisites: EDEX/DISB 111, 114, PSYC 101  
An overview of systemic behavioral change techniques for use with students in a variety of special education settings, including integrated, resource, self-contained, special school, and residential. Emphasizes a case analysis approach to creating and evaluating behavioral changes for students with mild to severe disabilities. (Also offered as DISB 340; may not be taken for duplicate credit.)

EDEX 415 Preschool Education for Children with  
Disabilities  
3c-0l-3cr  
Prerequisites: Disability services majors, special education majors, special education minors, 2.75 GPA  
Information on assessment, intervention strategies, curriculum, and prescriptive planning for preschool children with disabilities. For departmental majors who are specifically interested in early childhood special education, as an elective for other interested students in related fields, and as a required course for disability services majors.

EDEX 424 Strategic Assessment and Instruction in
Expository Texts 3c-0l-3cr
Prerequisites: Early childhood education/special education majors, completion of Step 1 of the 3-Step Process
Focuses on methodologies used for assessing, designing, and implementing instruction in expository texts for students with reading and learning disabilities. Addresses the demands of educational environments in which teachers are expected to collaborate in providing direct services to students. Special consideration is given to the growth and development of collaborative practices. In addition, students are expected to collaborate with each other in planning, designing, adapting, and evaluating assessment and instructional activities for a range of content area expository texts.

EDEX 425 Methods and Curriculum (Mild-Moderate Disabilities) 3c-0l-3cr
Prerequisites: EDEX 221, 222, 231, 321, 340, successful completion of Step 1 of the 3-Step Process
An in-depth examination of assessment methods, strategies, and curricula. Emphasizes assessment methods and strategies used in a variety of service models that serve elementary- and secondary-level students with learning disabilities, behavioral disorders, mild retardation, and high-function autism.

EDEX 435 Methods and Curriculum—Severe Cognitive Disabilities 3c-0l-3cr
Prerequisites: Successful completion of Step 1 of the 3-Step Process, early childhood education/special education, PreK-8/7-12 special education and reading specialist, secondary content/grades 7-12 special education certification majors or permission
Emphasizes methods designed to facilitate the development of an integrated, functional, and community-based curriculum that prepares individuals for integration in a wide variety of postschool environments. Particular attention is given to methods and interventions based on the principles of applied behavior analysis.

EDEX 440 Ethical and Professional Behavior 1c-0l-1cr
Emphasizes ethical and professional behavior for educational professionals working with individuals with special needs. Focuses on responsible and ethical conduct as it relates to interaction with students and other professionals in direct service, instructional, and/or supervisory roles. Addresses legal implications related to these roles. (Also offered as DISB 440; may not be taken for duplicate credit.)

EDEX 458 Transition Assessment and Planning for Youth with Disabilities 3c-0l-3cr
Reviews litigation and legislation leading to the legal requirement for the provision of transition planning for adolescents with disabilities to include postsecondary education and training, employment, and community living outcomes. Develops competencies in the skills necessary to help students with disabilities make a successful transition from school to adult life. Addresses the importance of self-determination and other personal-social characteristics that must be identified and supported by the transition team throughout the transition planning/implementation process. (Also offered as DISB 458; may not be taken for duplicate credit.)

EDEX 460 Family Perspectives on Disability 3c-0l-3cr
Prerequisite: PSYC 101
Critically examines families as competent and resourceful systems, students explore ways to collaborate effectively with family members. Focuses on legal and philosophical bases for supporting families in making important decisions affecting the education and care of their children. (Also offered as DISB 460; may not be taken for duplicate credit.)

EDEX 469 Education of Persons with Emotional/ Behavioral Disorders, Learning Disabilities or Brain Injury 3c-0l-3cr
Focuses on major theoretical positions regarding etiology of emotional/behavioral disorders, learning disabilities and brain injury; definition and identification of the populations; and educational approaches. Reviews research in the field, including current issues, trends, educational practices, and services. Uses a variety of instructional approaches (e.g., cooperative learning, simulations, role-playing) to facilitate acquisition of new knowledge and skills. (Also offered as DISB 469; may not be taken for duplicate credit.)

EDEX 478 Education of Persons with Intellectual/Developmental Disabilities and Physical/ Multiple Disabilities 3c-0l-3cr
Focuses on major theoretical positions regarding etiology of intellectual disabilities, developmental disabilities, a wide and diverse range of physical/multiple disabilities, and other health impairments. Discusses definitions, population characteristics, and educational approaches. Reviews research in the field, including current issues, trends, practices, and services. (Also offered as DISB 478; may not be taken for duplicate credit.)

EDEX 481 Special Topics svar-1-3cr
Prerequisite: As appropriate to course content
Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 481 are primarily for upper-level undergraduate students.

EDHL: Education of Deaf and Hard-of-Hearing Persons
Department of Communication Disorders, Special Education, and Disability Services
College of Education and Communications

EDHL 114 Introduction to Deaf and Hard-of-Hearing Persons 3c-0l-3cr
Deals with the different approaches used in teaching students who are deaf or hard of hearing—manual language, oral language, and total communication. The historical background of each approach is presented with its strengths and weaknesses. Criteria for the use of each approach are established in consideration of degree of loss exhibited by the pupil, the age of onset, and the social and psychological implications.

EDHL 115 Introduction to American Sign Language 3c-0l-3cr
Prerequisite: Deaf education or disability services major or Deaf studies minor or permission
Development of manual dexterity and fluency using fingerspelling. Acquisition of basic American Sign Language syntax, semantics, vocabulary, and pragmatics. Practice in acquiring general information from a signed message and conversing informally on commonly used topics. Exploration of the history of ASL and cultural aspects within the deaf community.

EDHL 215 Intermediate American Sign Language 3c-0l-3cr
Prerequisites: EDHL 115, 3.0 GPA required for deaf education majors, 2.8 GPA for Deaf studies minors
Emphasizes vocabulary expansion, comprehension of signed information, and development of fluency in conveying a message in American Sign Language. Focuses on idiom-like expressions, number systems, rules, grammar, and conversational language. Total immersion approach is used.

EDHL 307 Speech for Deaf and Hard-of-Hearing Persons 3c-0l-3cr
Prerequisites: EDHL 114, 3.0 GPA
Techniques for developing, diagnosing, analyzing, and correcting the speech and voice problems of persons who are deaf or hard of hearing. Includes lecture, demonstration, and special projects.

EDHL 308 Supporting Language and Communication for Deaf/ Hard-of-Hearing, English Language Learners, and Individuals with Language Disorders 3c-0l-3cr
Prerequisites: EDHL 114 or EDEX 110 or 111
Reviews normal language development birth–12 years and compares it to the language development of children with various types and degrees of hearing loss, English as a second language, and children with language disorders. Emphasizes specific strategies focused on the assessment and development of English language skills in English Language Learners, Deaf/Hard-of-Hearing children, and children with language disorders.

EDHL 317 Sign Language in Educational Settings 3c-0l-3cr
Prerequisites: EDHL 215, deaf education major or permission
Focuses on the use of sign language in the schools. Includes the adaptation of American Sign Language to Manually Coded English and Signed English, basic principles of interpreting in an educational setting for future teachers of deaf and hard-of-hearing students, and pedagogical methods of including American Sign Language as a language of instruction for deaf students.

**EDHL 329 Teaching Collaborative Practicum I** 1c-11-1cr  
**Prerequisites:** EDHL 114, 115, 215, 308, 360, 361; EDUC 242, admission to Step 1 of the 3-Step Process  
An opportunity to work in either a one-to-one or small group instructional setting with K-12 students who are deaf or hard of hearing. Emphasizes lesson planning, academic instruction, curriculum-based assessment, progress monitoring, collaboration, professional report writing, and reflection.

**EDHL 330 Teaching Collaborative Practicum II** 2c-11-2cr  
**Prerequisites:** EDHL 114, 115, 215, 308, 360, 361; EDUC 242; admission to Step 1 of the 3-Step Process  
An opportunity to work with either a one-to-one or small group instructional setting with K-12 students who are deaf or hard of hearing. Lesson planning, academic instruction, response to instruction, curriculum-based assessment, progress monitoring, collaboration, peer monitoring, professional report writing, and reflection are emphasized.

**EDHL 360 General Methodology for Education of Deaf and Hard-of-Hearing Persons I** 3c-01-3cr  
**Prerequisites:** EDHL 114, 115; admission to Step 1 of the 3-Step Process  
Provides systematic coverage of the basic procedures for maintaining legal educational mandates (IDEA) and teaching curriculum subjects. Includes the development of an Evaluation Report and Individualized Education Plan, including a communication plan, and regular and adaptive methods of instruction for the teaching of language arts, social studies, and science. The Pennsylvania K-12 Academic Standards are used to guide the construction of lessons that are developmentally appropriate and follow current best practices in education. Multiple projects and teaching activities are involved.

**EDHL 415 ASL Pedagogy** 1c-11-1cr  
**Prerequisites:** EDHL 114, 115, 215, 315, 316, 3.0 GPA  
Studies the evolution of signs; dialectical sign systems. Analysis and comparison of the linguistic similarities/differences of various sign languages. Direct translation of written or spoken information on specific topics using American Sign Language or Signed English. Practice using conversation on both a social and academic level.

**EDHL 417 Advanced American Sign Language** 3c-01-3cr  
**Prerequisite:** EDHL 215  
A continuation of Intermediate American Sign Language (ASL). Focuses on vocabulary expansion, comprehension of sign information, and development of fluency in conveying a message in ASL. Emphasizes receptive ability as well as overall quality of expression. Additional cultural aspects of ASL are discussed.

**EDHL 440 Professional Seminar: Preparing to Be a Teacher, Researcher, Diagnostician, and Student Advocate** 2c-01-2cr  
**Prerequisites:** Deaf education major, successful completion of Step 2 of the 3-Step Process, concurrent enrollment in student teaching EDUC 421, 441  
Students learn the importance of engaging in continual professional development. The Code of Professional Practice and Conduct for Educators is emphasized. Collaboration and correspondence with school and agency personnel, parents, and students are explored. While examining the theoretical and research-based practices for an educational setting, the students engage in informed advocacy efforts on behalf of children with normal hearing, those with hearing loss, and the profession.

**EDHL 451 Reading for Deaf, Hard-of-Hearing, and English Language Learners** 3c-01-3cr  
**Prerequisites:** EDHL 308; admission to Step 1 of the 3-Step Process  
Presents concepts of reading instruction and systematic coverage of the methods of teaching reading to all students. Discussion about and adaptation for students who are deaf or hard of hearing and English language learners from readiness stages through upper school content reading are emphasized. (writing-intensive course)

**EDHL 465 Parent/Preschool Programs for Deaf and Hard-of-Hearing Children** 3c-01-3cr  
**Prerequisites:** EDHL 114, 308; admission to Step 1 of the 3-Step Process  
Developing home/preschool programs for parents and infants who are deaf or hard of hearing (0-3 years). Teaching speech, language, speechreading, use of residual hearing, and developing readiness skills at the preschool level. An additional emphasis on early childhood aesthetics and adaptations for English language learners at the preschool level is also included.

**EDHL 481 Special Topics** var-1-3cr  
**Prerequisite:** As appropriate to course content  
Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 481 are primarily for upper-level undergraduate students.

**EDSP 102 Educational Psychology** 3c-01-3cr  
Promotes an understanding of the principles of psychology governing human behavior, with particular emphasis on the relation to the learner, learning process, and learning situation in an educational environment.

**EDSP 257 Understanding and Taking Standardized Tests** 1c-01-1cr  
For teacher education majors to promote their understanding of the principles of successfully mastering standardized tests such as the Praxis I exam. A particular emphasis on practicing the skills necessary for understanding the assessments. Highlights the application of skill-based decision making in preparing for test taking. Also discusses implications of individual differences and variables that affect performance on standardized tests.

**EDSP 373 Psychology of Adolescent Education** 3c-01-3cr  
**Prerequisite:** EDSP 102  
A study of significant characteristics, behavior, and educational and social problems of adolescents.

**EDSP 378 Learning** 3c-01-3cr  
**Prerequisite:** EDSP 102  
Explores learning theories and educational application in the classroom.

**EDSP 468 Current Topics in Educational Psychology** 3c-01-3cr  
**Prerequisite:** EDSP 102  
Enables students to participate in advanced study of current topics at the interface between issues in education and the theories that drive the field. Investigates topics as they apply to specific aspects of teaching and learning. Investigates current academic considerations with a variety of perspectives being integrated to prepare students for addressing the needs of students.

**EDSP 476 Foundations of Behavior Analysis** 3c-01-3cr  
**Prerequisite:** EDSP 102 or instructor permission  
Introduces behavior analysis through discussion of its philosophical assumptions, theoretical underpinnings, and basic concepts. (Offered as EDSP 376 before 2017-18.)

**EDSP 477 Assessment of Student Learning: Design and Interpretation of Educational Measures** 3c-01-3cr  
**Prerequisites:** PSYC 101 or permission; admission to teacher certification  
Acquaints students with major methods and techniques of evaluation used to assess and report growth, development, and academic achievement of learners in elementary and secondary schools, including interpretation of standardized test information.

**EDSP 479 Interpreting and Critiquing Educational Research** 3c-01-3cr  
**Prerequisite:** EDSP 477 or instructor permission
Obtain knowledge and understanding of various designs, components, and principles used in educational research articles and develop application, analysis, synthesis, and evaluation skills which will allow the summarizing and critiquing of a variety of research articles.

**EDSP 493 Educational Psychology Honors Internship** 1cr  
**Prerequisites:** EDSP 102 and admission to Honors Track  
A direct experience in one of three centers located in the Educational and School Psychology Department; centers include the Child Study Center and the Center for Rural Gifted Education. Other centers located within the College of Education and Communications or the Teacher Education Program may be considered if approved by the Honors Track director. May be repeated.

**EDUC 221 Seminar in Essential Skills in Peer Mentoring** 1c-0l-1cr  
Focuses on the critical peer mentoring skills including leadership, professionalism, and interpersonal communication. Instructs students in comprehensive preparation for working one-on-one with mentees, while maintaining confidentiality and respecting appropriate boundaries in the relationship. Demonstrates mentoring skills and proper accountability in supervised field experiences.

**EDUC 242 Pre-student Teaching Clinical Experience I** var-1cr  
**Prerequisite:** Admission to teacher certification  
Introduces specific competencies that relate to individual major fields of teaching and university-based instruction, as well as observation/participation in a preK-grade 12 field experience. These competencies incorporate strategies and techniques for addressing the needs of all students, including those with special and English language learning needs.

**EDUC 250 Labyrinth Seminar** 1c-0l-1cr  
Focuses on the communication, executive functioning, and inter/intrapersonal demands of college life. Designed to build the necessary skills to navigate the social and academic environment to succeed in the college experience. The seminar includes both teacher- and student-directed topics. This course can be repeated every semester that the student elects to participate in the Labyrinth Center.

**EDUC 281 Special Topics** var-1-3cr  
**Prerequisite:** As appropriate to course content  
Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identifier no more than three times. Special topics numbered 281 are offered primarily for lower-level undergraduate students.

**EDUC 342 Pre-student Teaching Clinical Experience II** var-1cr  
**Prerequisites:** EDUC 242, admission to junior standing  
Continues to develop and refine competencies that relate to individual major fields of teaching through university-based instruction as well as participation and teaching in a preK-grade 12 field experience. Also incorporates strategies and techniques for the delivery of instruction to all students, including those with special and English language learning needs. May be repeated for students seeking dual certification.

**EDUC 408 Reading in the Content Areas** 3c-0l-3cr  
**Prerequisite:** ELED 222  
Problems related to teaching students reading and study skills specifically needed in each of the subject areas at the elementary level. Content teachers learn how to develop students’ competence in these skills as part of their regular classroom instruction.

**EDUC 421 Student Teaching** var-5-6cr  
**Prerequisite:** Admission to student teaching  
An experience in teaching at the elementary level; coordination and visitation by a university faculty member with daily supervision by a cooperating classroom teacher.

**EDUC 440 Professional Seminar: Teacher as Leader**  
**Prerequisites:** Middle-level education 4-8 major, concurrent enrollment in student teaching EDUC 421 and 441  
Provides support in a teacher candidate’s ongoing professional development. Emphasizes guidelines for professional etiquette, ethical behavior, professional practice, and effective interpersonal relations with teachers, paraprofessionals, school and agency personnel, parents, and students in grades 4-8. Examines the theoretical and research basis for classroom practices.

**EDUC 441 Student Teaching** var-5-12cr  
**Prerequisite:** Admission to student teaching, successful completion of Step 2 of Teacher Education 3-Step Process  
An experience in teaching at the elementary or secondary level; coordination and visitation by a university faculty member with daily supervision by a cooperating classroom teacher.

**EDUC 442 School Law** 1c-0l-1cr  
Required of all teacher certification students. Includes an overview of legal principles that apply to special areas of education. Must be taken before student teaching.

**EDUC 451 Teaching Science in the Secondary School** 2c-2l-3cr  
**Prerequisite:** Admission to student teaching  
Provides the background to help science majors meet the problems of teaching science. Various inquiry approaches useful in meeting the objectives of a contemporary science class, including special needs students and English language learners, are taught and exemplified.

**EDUC 452 Teaching of English and Communication in the Secondary School** 3c-0l-3cr  
**Prerequisites:** ENGL 314, 323, 324 (or approved equivalents) and admission to Step 1 of the 3-Step Process  
A prerequisite to student teaching in English. Introduces current professional practices in the teaching of English and communications in secondary school.

**EDUC 453 Teaching of Foreign Languages in the Secondary School** 3c-0l-3cr  
**Prerequisites:** Grade of “C” or better in SPAN 390 or FRNC/GRMN 390; instructor permission  
Helps students develop an understanding of current theories of foreign language learning through exploration of relevant research. Students read about and discuss the implications of key research for teaching in secondary school classrooms. Opportunities are provided to use the theoretical base to design and present classroom lessons and to reflect on the effectiveness of their teaching. Special attention is given to designing performance-based language assessments and to adapting instruction to address the special needs of learners. Taught fall semester only.

**EDUC 455 Teaching of Social Studies in Secondary Schools** 3c-0l-3cr  
**Prerequisite:** Admission to Teacher Education Program  
A study of modern methods and techniques for teaching social studies and of current curricula in social studies.

**EDUC 456 Teaching Mathematics in the Secondary Schools** 3c-0l-3cr  
**Prerequisites:** Admission to Teacher Education Program, a declared major in mathematics education, and EDUC 242 with a grade of “C” or better  
A study of curricula, standards, methods, and techniques for teaching mathematics in the secondary schools.

**EDUC 461 Student Teaching** 6c-0l-6cr  
**Prerequisite:** Admission to student teaching, successful completion of Teacher Education Step 2  
An experience in teaching students with special needs at the preK to grade 8 level; coordination and visitation by a university faculty member with daily supervision by a cooperating teacher.

**EDUC 471 Student Teaching** 6c-0l-6cr  
**Prerequisite:** Admission to student teaching, successful completion of
Teacher Education Step 2
An experience in teaching students with special needs at the preK to grade 8 level; coordination and visitation by a university faculty member with daily supervision by a cooperating teacher.

EDUC 481 Special Topics 3c-0l-3cr
Prerequisite: By permission only
An opportunity to investigate in depth an area of education under professional supervision.

EDUC 482 Independent Study var-1-3cr
Prerequisite: Prior approval through advisor, faculty member, department chair, dean, and Provost’s Office
Students with interest in independent study of a topic not offered in the curriculum may propose a plan of study in conjunction with a faculty member. Approval is based on academic appropriateness and availability of resources.

EDUC 499 Multicultural/Multiethnic Education 2c-0l-2cr
Prerequisite: One methods course must be taken before, or concurrently with, EDUC 499
Provides an understanding and appreciation of cultural diversity in the United States. Students gain the ability to locate and develop curricular materials appropriate to this country’s diversity.

ELR 314 Health Policy and Law 3c-0l-3cr
Focuses on understanding the evolution of healthcare policy, health law, and federal and state regulation of healthcare financing programs. Introduces healthcare policy making; critical health policy issues; legislative, regulatory, and legal challenges; and legislative and political processes that impact the healthcare delivery system in the United States. (Cross-listed as NURS 314.)

ELR 480 Introduction to Negotiations and Conflict Resolution 3c-0l-3cr
Deals with negotiations and conflict resolution techniques. An introduction to current concepts and theories of negotiations and resolving conflict and their application generally to everyday issues. Prepares students to engage in these techniques in workplace issues such as collective bargaining, negotiating contracts and agreements internally as well as externally.

ENGL 101 Basic Writing 3c-0l-3cr
The student develops the basic English skills necessary for clear and effective communication. Restricted to freshmen whose placement testing essay or portfolio score is a four or under. Does not meet General Education English or Liberal Studies writing requirements.

ENGL 101 Composition I 3c-0l-3cr
Prerequisite: ENGL 100 where required by placement testing
In this first-year writing course, students compose projects in multiple written genres that address specific rhetorical situations. Uses memory, observation, critical reading and viewing, analysis, and reflection to draft, peer review, revise, and edit projects.

ENGL 121 Humanities Literature 3c-0l-3cr
Prerequisite: ENGL 101
An exploration of literature and the methods of close reading. Through encounters with significant literary texts, students investigate and analyze how literary meaning is constructed, how literature shapes and is shaped by its various contexts, and how literature enables critical inquiry into values. Includes literary texts by women and people from underrepresented communities. Also offered as FNLG 121. ENGL/FNLG 121 may be used interchangeably for D/F repeats; may not be counted for duplicate credit.

ENGL 122 Introduction to English Studies 3c-0l-3cr
Prerequisites: English major/minor; minimum grade of “C” in ENGL 101
Introduces students to English studies by acquainting them with the critical approaches appropriate to the varied subject areas of the discipline. The assumptions and methods of these approaches are considered, especially in the interpretation of literature. At the conclusion, students are able to critically analyze texts and demonstrate those skills in discussion and writing. Required of all English majors.

ENGL 202 Composition II 3c-0l-3cr
Prerequisites: ENGL 101 and sophomore standing
Serves as a bridge between Composition I and students’ majors; introduces the informed inquiry skills important to research in educational and practical contexts. Develops abilities in writing, critical reading, revising, citing and documenting sources, and reflecting and other rhetorical knowledge.

ENGL 203 Introduction to Language Studies 3c-0l-3cr
Prerequisite: ENGL 101
Introduces the study of linguistics and rhetoric. Considers cultural contexts and issues of power, focusing on questions such as how our brains use language, how language represents the world we live in, and how language influences our actions.

ENGL 208 Introduction to Film Studies 3c-0l-3cr
Concentrates on the film as an artistic medium. Eight to 12 motion pictures are shown during semester and are analyzed in class discussions.

ENGL 210 British Literature to 1660 3c-0l-3cr
Prerequisites: ENGL 101, and 121 or 122
Surveys British literature from its beginnings to about 1660, acquainting students with the experience of reading many of the primary materials (whole works whenever possible or full, free-standing parts) and provides background information concerning the development and flowering of the various genres, the dominant ideas of each period, and the social and cultural context of the separate works.

ENGL 211 British Literature to 1660-1900 3c-0l-3cr
Prerequisites: ENGL 101, and 121 or 122
Surveys British literature from about 1660 to the beginning of the 20th century, acquainting students with the experience of reading many of the primary materials (whole works whenever possible or full, freestanding parts) and providing them with background information concerning the development and flowering of the various genres, the dominant ideas of each period, and the social and cultural context of the separate works.

ENGL 212 American Literature: Beginnings to 1900 3c-0l-3cr
Prerequisites: ENGL 101, and 121 or 122
Provides an understanding of American literature from its beginning to about 1900. Concentrates primarily on a relatively small number of major works, each of which helps to illustrate the “spirit of the age” it represents.

ENGL 213 British and American Literature Since 1900 3c-0l-3cr
Prerequisites: ENGL 101, and 121 or 122
A survey of major authors and works in British and American literature since 1900. Begins with the shift from Victorianism and late 19th-century literature into modernism, as exemplified by writers such as Woolf, Hemingway, and O’Neill, and continues with postmodernism and contemporary literature.

ENGL 220 Advanced Composition 3c-0l-3cr
Prerequisite: ENGL 202
Primarily seeks to improve writing style, particularly in the more utilitarian forms, such as magazine article and personal essay.

ENGL 221 Creative Writing 3c-0l-3cr
Prerequisite: ENGL 121 or 122 or FNLG 121
A seminar course in which students are expected to produce a substantial body of written work in one or more of the creative genres, the particular kind of writing chosen with regard to the special interests and abilities of each student.

ENGL 222 Technical Writing 3c-0l-3cr
ENGL 225 Introduction to Literature by Women 3c-0l-3cr
Prerequisite: ENGL 121 or 122 and 202
Major trends and motifs across genres (fiction, nonfiction, poetry, autobiography) that reflect themes and subjects of continuing interest to women writers. The intersection of genre with race, ethnicity, and social class is of particular significance.

ENGL 226 Survey of Global Literature Since 1900 3c-0l-3cr
Prerequisites: ENGL 101, and 121 or 122
Surveys 20th century and contemporary global literature in English and/or translation. Readings are organized around major contexts and themes of colonialism, revolution, decolonization, nationalism, and globalization.

ENGL 227 Introduction to Legal Writing 3c-0l-3cr
Prerequisite: ENGL 202
Introduces legal research and writing. Students learn to prepare research memos, memoranda of law, legal briefs, court observation essays, and other legal documents. Other topics include legal terminology, audience analysis, and case study analysis.

ENGL 265 Law and Literature 3c-0l-3cr
Prerequisites: Minimum grade of “C” in ENGL 101 and 202
Explores the historical and cultural connections between selected legal texts and themes as they relate to novels, poems, films, drama, essays, and other literary genres.

ENGL 281 Special Topics var-1-3cr
Prerequisite: As appropriate to course content
Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 281 are offered primarily for lower-level undergraduate students.

ENGL 308 Critical Theory 3c-0l-3cr
Prerequisite: Minimum grade of “C” in ENGL 122
Explores the major writings, writers, issues, technical vocabulary, and critical methods in literary, textual, and cultural studies theory; acquaints students with how such theoretical methods affect the way literary and cultural texts are read, studied, and taught; and enables the students to recognize and engage in theoretical praxis of various kinds.

ENGL 309 Dramaturgy 3c-0l-3cr
An introduction to the study and profession of dramaturgy. A study of the historical significance of the dramaturg through the reading of early and modern practitioners. An examination of a number of critical theories that students will use to contextualize play scripts under study. Performance of such dramaturgical tasks as identifying script references, historicizing systems, and language-related power systems. Also considers questions of how language develops over time, how languages are made up of a number of varieties, how languages are learned and used, and how language use varies for different groups of users, and how these issues are related to cultural contexts including issues of power.

ENGL 310 Public Speaking 3c-0l-3cr
Prerequisite: ENGL 101
Fundamental principles of public speaking, audience analysis, interest, and attention and selection and organization of speech material.

ENGL 313 Rhetorical Trends and Traditions 3c-0l-3cr
Prerequisite: ENGL 101
A survey of the major issues in and uses of rhetorical theory and criticism in contemporary culture, using rhetorical concepts from ancient through contemporary times. Rhetoric is the humanistic study of the ways people manipulate language and try to persuade others in the social world.

ENGL 314 Speech and Communication in the Secondary English Classroom 3c-0l-3cr
Prerequisites: ENGL 122, 202
Offers practical and theoretical approaches to relationships between oral and written communication. Performance based (involving a variety of communication activities) and knowledge based (involving study of research on language arts relationships). Emphasizes integration of the four language arts for improving teachers’ own communication skills as well as those of their students.

ENGL 321 Persuasive Speech and Writing 3c-0l-3cr
Prerequisite: ENGL 202
Focuses on the practice of persuasive discourse in speech, writing, and visual media. Includes projects and readings in debate, written argument, and rehearsed and extemporaneous speaking. Students investigate such subjects as rhetorical foundations and applications, language choice and stylistic variations, popular culture, literature, and communication dynamics.

ENGL 323 Teaching Literature and Reading in the Secondary School 3c-0l-3cr
Prerequisites: ENGL 122, 202
Introduces the theory and research on teaching literature and reading in the secondary school. Reviews reader-response literary theory and classroom-based research on teaching literature. Also reviews socio-psycholinguistic reading theory and classroom-based research on teaching reading.

ENGL 324 Teaching and Evaluating Writing 3c-0l-3cr
Prerequisites: ENGL 122, 202, English education major or permission
A study of modern approaches to the teaching of writing, including current theories on the composing process, as well as instruction in evaluating, including holistic scoring. Includes practice in writing.

ENGL 325 Writing Poetry 3c-0l-3cr
Prerequisite: ENGL 221 or instructor permission
A writing workshop for students who wish to focus intensively on the writing and revision of poetry and on developing an audience for one’s creative work.

ENGL 326 Writing Fiction 3c-0l-3cr
Prerequisite: ENGL 221 or instructor permission
A writing workshop for students who wish to focus intensively on the writing and revision of fiction and on developing an audience for one’s creative work.

ENGL Writing Creative Nonfiction 3c-0l-3cr
Prerequisite: ENGL 221 or instructor permission
A writing workshop for students who wish to focus intensively on the writing and revision of literary nonfiction forms and on developing an audience for one’s creative work.

ENGL 328 Introduction to Linguistics 3c-0l-3cr
An introduction to the study of languages as complex sets of interacting systems needed for human communication in a variety of interpersonal, academic, and professional contexts. Focuses on the fundamentals of sound systems, word structures, sentence structures, text structures, meaning systems, and language-related power systems. Also considers questions of how language develops over time, how languages are made up of a number of varieties, how languages are learned and used, how language use varies for different groups of users, and how these issues are related to cultural contexts including issues of power.

ENGL 329 The History of the English Language 1c-0l-1cr
Prerequisite: ENGL 202
Studies historical development of the English language as a basis for a better understanding of modern American English.

ENGL 330 The Structure of English 3c-0l-3cr
Prerequisite: ENGL 202
An introduction to the fundamentals of language study with an equal emphasis on the sound, word, sentence, meaning, and discourse patterns of English. Educationally relevant topics, such as applications of linguistics to the teaching of English language and literature, varieties of grammar, and linguistic descriptions of styles and registers, are an integral part of the course. Course is a prerequisite for EDUC 452.

ENGL 332 Film Genres 3c-0l-3cr
Prerequisites: ENGL 101, 108
Offers a close examination of classic and contemporary films and film theory from a variety of critical perspectives—for example, spectatorship, auteurism, feminism, historiography, and cultural studies—through a focus on genre.

ENGL 333 Psycholinguistics 3c-0l-3cr
Prerequisite: ENGL 202
Concerns the interrelation between language system and behavior and various factors of human psychology. Surveys developments since the 1940s, including relationships between language and perception, biology, memory, meaning, and cognition, as well as oral and written behavior. Students of language and literature may improve their assumptions about how human beings use language.

ENGL 335 Literary Nonfiction 3c-0l-3cr
Prerequisite: ENGL 202
Focuses on the study of forms of literary nonfiction, in English, which may include traditional essays, lyric essays, memoir, and/or creative nonfiction depending on the instructor’s expertise.

ENGL 336 Language, Gender, and Society 3c-0l-3cr
Prerequisites: ENGL 202, junior standing
Investigates the various ways that language and gender interact and intersect in society. Examines such questions as: Does society use language to favor one sex over the other? Why is language a crucial component in formulating constructs of masculinity and femininity? What stereotypes of gender-based language are promoted in our society? How can we analyze language to reveal disparate views and treatment of the sexes?

ENGL 337 Myth 3c-0l-3cr
Prerequisites: ENGL 202, and 121 or 122
Examines the nature and function of the mythic experience and explores the archetypal patterns of myths from various cultures.

ENGL 340 The Novel 3c-0l-3cr
Prerequisites: ENGL 101, and 121 or 122
Focuses on the forms and theories of the novel as a genre. Emphasizes major writers and movements as well as significant historical developments.

ENGL 341 Poetry 3c-0l-3cr
Prerequisites: ENGL 101, and 121 or 122
Studies the forms and theories of poetry as a genre. Includes study of major writers, movements, and aesthetic developments.

ENGL 342 Short Fiction 3c-0l-3cr
Prerequisites: ENGL 101, and 121 or 122
Studies the form and theory of short fiction as a genre. Emphasizes major writers and movements as well as significant historical developments.

ENGL 343 Drama 3c-0l-3cr
Prerequisites: ENGL 101, and 121 or 122
Focuses on the forms and theories of drama as a genre. Emphasizes major writers and movements as well as significant historical developments.

ENGL 344 Ethnic American Literature 3c-0l-3cr
Prerequisites: ENGL 101, and 121 or 122
Concerned with ethnic US experiences as expressed in poetry, fiction, drama, and autobiography. The topic will vary and be announced in advance. Examples include Asian American, Hispanic, Irish American, Jewish American, and Native American literatures.

ENGL 345 Topics in British Literature 3c-0l-3cr
Prerequisites: ENGL 121 or 122 and 202
Examines major works and trends in British literature by focusing on its cultural, historical, and literary contexts. Topics vary by instructor.

ENGL 346 Topics in Global Literature and Film 3c-0l-3cr
Prerequisite: ENGL 121 or 122 and 202
Examines major works and trends in American literature by focusing on its cultural, historical, and literary contexts. Topics vary by instructor.

ENGL 347 Playwriting 3c-0l-3cr
Prerequisite: THTR 111 or instructor permission
A practical exploration of the craft and process of playwriting. Focuses primarily on the practical, “hands-on” experiences approximating the “developmental process” currently in use in the American theatre. The student is guided from the initial concept through synopsis, outlines, working drafts, and completion of an original one-act play and a “staged reading” of this project. Note: Cross-listed as THTR 347. Either of these courses may be substituted for each other and may be used interchangeably for D/F repeats but may not be counted for duplicate credit.

ENGL 348 African American Literature 3c-0l-3cr
Prerequisites: ENGL 121 or 122 and 202

ENGL 349 English Bible as Literature 3c-0l-3cr
Prerequisites: ENGL 121 or 122 and 202
Considers literary aspects of the English Bible by relating earlier translations to the Authorized Version of 1611 and by tracing some of the major influences of the King James Bible upon writers and speakers of modern English. Offers a close reading of the major narrative and poetic portions of the Old Testament.

ENGL 350 Gender and Sexual Orientation in Literature, Theory, and Film 3c-0l-3cr
Prerequisite: ENGL 202
Introduces literature, film, and theory that focus primarily on lesbian, gay, bisexual, and transgender perspectives. Inquires into the representation of gender and sexuality within historical and cultural contexts.

ENGL 354 Classical Literature in Translation 3c-0l-3cr
Prerequisites: ENGL 202, and 121 or 122
Masterpieces studied range from those of ancient Greece to Middle Ages. English literature and American literature excluded.

ENGL 360 Editing and Publishing 3c-0l-3cr
Prerequisites: ENGL 202 and 220 or 221
A project-based career preparation course focused on creating, editing, and publishing in print and/or electronic forms. Includes theory and practice of editing, practice with publication tools, and group collaboration.

ENGL 361 Environmental Literature 3c-0l-3cr
Prerequisites: ENGL 121 or 122, 202
Focuses on literature devoted to natural and constructed environments, exploring connections among such topics as nature writing, environmentalism, ecocriticism, place studies, bioregionalism, and environmental justice.

ENGL 385 Advanced Studies in Women’s Literature 3c-0l-3cr
Prerequisites: ENGL 121 or 122, 202
Considers issues of genre and canon revision and why particular genres may have particular appeal for women writers. Also considers major feminist literary theories and their applications. While many readings are by “literary women,” course also may consider works by women who are professionals in nonliterary disciplines.

ENGL 386 Regional Literature in English 3c-0l-3cr
Prerequisites: ENGL 202, and 121 or 122
Examines the contributions of a particular region to national literature. The focus might be any of the following: Appalachian writers, local color writers, New England writers, Southern writers, writers of the American West, or Canadian writers.

ENGL 387 Irish Literature 3c-0l-3cr
Prerequisite: ENGL 121 or 122
Additional prerequisite for BA English majors: ENGL 213
An introduction to Irish literature since 1800, with particular emphasis on the Literary Revival in the early 20th century. Key authors include Yeats, Joyce, Synge, O’Casey, Edgeworth, Somerville and Ross, Gregory, Beckett,
and Heaney. The development of Irish writing is examined within the con-
texts of Irish history, language, culture, and politics.

ENGL 396 The Literature of Emerging Nations 3c-0l-3cr
Prerequisite: ENGL/FNLG 121 or ENGL 122, 202
A comparative study of a selection of literature written in major European
languages but originating in the nations of the developing world. Works are
mainly prose fiction (although essay, theatre, and poetry may be included)
and reflect a diversity of geographical, cultural, and prior colonial circum-
stances. Also listed as FNLG 396.

ENGL 398 Global Genres 3c-0l-3cr
Prerequisite: ENGL 202
Focuses on a specific literary genre (including, but not limited to, poetry,
drama, film, the short story, or the novel) as it has been developed and
transformed in global contexts beyond the typical domains of the British or
American literary traditions. Situates the use of a genre within transnational
literary and historical developments. The global genre studied in a particular
semester to be announced in advance.

ENGL 415 English Language Studies for Teachers 3c-0l-3cr
Prerequisite: ENGL 202
Focuses on the fundamentals of language study with equal emphasis on the
sound, the word, the sentence, the meaning, and the discourse patterns of
English as they manifest in daily lives. Educationally relevant topics, such as
applications of sociolinguistics to the teaching of English language and
literature, varieties of grammar, and linguistic descriptions of styles and
registers are an integral part of the course.

ENGL 418 Young Adult Literature 3c-0l-3cr
Prerequisites: ENGL 101, 122, 323, or permission, English education
major
Introduces literature for and about young adults. Emphasizes critical study
of the literature and its classification as well as resources and rationales for
using young adult literature in the middle and secondary classroom. Ex-
ploring selection of literature and various methods of literature instruction.
(Offers as ENGL 318 before 2014-15.)

ENGL 420 Writers' Studio 3c-0l-3cr
Prerequisite: ENGL 220 or 221
An upper-division course emphasizing reading, discussion, and writing
on specialized topics related to the study and performance of writing. The
focus varies from semester to semester according to the expertise of the
faculty member teaching the course.

ENGL 421 Digital Writing 3c-0l-3cr
Prerequisite: ENGL 202
Introduces composition and presentation issues in writing for digital media.
Focuses on the conventions of digital writing and provides practice in
conceiving, composing, and producing networked texts and may include
creative expression, persuasion, and collaboration. Extends traditional
literacy skills into emergent, digital genres.

ENGL 424 Second Language Acquisition 3c-0l-3cr
Focuses on how people learn and develop a second language. Explores
research in second language acquisition (SLA) and focuses on the multi-
disciplinary nature of second language learning and use. Concentrates on
the history of SLA and how understanding SLA can affect teaching and
learning.

ENGL 426 ESL Methods and Materials 3c-0l-3cr
Prerequisite: Senior standing or instructor permission
An introduction to English as a second language theory and practice. Aims:
(1) general understanding of current theory and methods of teaching ESL;
(2) ability to select appropriate, and adapt existing, materials for elementary
and high school ESL students.

ENGL 430 Major British Author 3c-0l-3cr
Prerequisites: ENGL 122, 202; and one of 210-213 or 226
Examines major works of a single major author, including biographical,
literary, and cultural contexts. Places the author within both intellectual/cul-
tural history and literary developments. Major author studied in a particular
semester to be announced in advance.

ENGL 434 Shakespeare 3c-0l-3cr
Prerequisites: ENGL 122, 202, and one of 210-213 or 226
Studies Shakespeare’s development as a poet and dramatist against back-
ground of Elizabethan stage; examines audience, textual problems, lan-
guage imagery, and philosophy.

ENGL 436 Major American Authors 3c-0l-3cr
Prerequisites: ENGL 122, 202; and one of 210-213 or 226
Studies in the literary output of a major American author or authors against
the background of the social and literary milieus in which the works were
created. Specific subject or subjects to be announced by the instructor.

ENGL 440 Major Figures in Film 3c-0l-3cr
Prerequisites: ENGL 121 or 122; and 202, 208
Studies major artists and their contributions to the development of film as
an art form from its beginnings to the present. Close analyses of directors,
cinematographers, editors, screenwriters, or actors—as individuals or as
representatives of a movement in film. Topics vary from semester to semes-
ter; thus, one semester may concentrate on a specific director such as Alfred
Hitchcock; another semester might study women (as directors, actresses,
and editors); and yet another semester might study a collective movement
such as film noir.

ENGL 441 Topics in ELL and Public ESOL Education 3c-0l-3cr
Explores major trends in English Language Learner (ELL) education.
Focuses on current topics and trends in the field of English as a Second
Language in both public and nontraditional schooling settings

ENGL 442 Cross-Cultural Communication 3c-0l-3cr
Explores major trends, issues, research, and exploration in cross-cultural
communication. Introduces conceptual frameworks for understanding cross-
cultural communication in and out of the classroom.

ENGL 450 Film Theory 3c-0l-3cr
Prerequisites: ENGL 121 or 122; and 202, 208
An introduction to major film theories, studied in relation to representative
films. Details the complex relationship between film production and film
theory, i.e., how theorists have attempted to explain what appears on the
screen, its impact, and its relation to “reality,” and how filmmakers have
responded to the works of theorists (with the two sometimes being the
same). Goes far deeper into understanding film than ENGL 208, which fo-
cuses mainly on how film is constructed through aesthetic and institutional
processes.

ENGL 460 Topics in Film 3c-0l-3cr
Prerequisites: ENGL 101, 208
Selected films dealing with a specific, advanced topic are viewed and as-
essed to explore the different roles that film plays. Topic to be announced
in advance.

ENGL 481 Special Topics 3c-0l-3cr
Prerequisite: As appropriate to course content
Topics vary from semester to semester covering such diverse topics as auto-
biography, science fiction, folklore, the political novel, black theatre, etc.

ENGL 482 Independent Study 3c-0l-3cr
Prerequisite: Prior approval through advisor, faculty member, department
chair, dean, and Office of the Provost
Students with interest in independent study of a topic not offered in the
curriculum may propose a plan of study in conjunction with a faculty
member. Approval is based on academic appropriateness and availability of
resources.

ENGL 483 Honors Thesis 3c-0l-3cr
Prerequisites: Admission to departmental honors program; prior
approval through advisor, faculty member, department chair, dean, and Of-
fice of the Provost
An intensive, focused study involving independent research culminating in
a written thesis approved by a thesis advisor and two faculty readers/com-
mittee members. May be taken more than once to a maximum of 6cr.
ENGL 484 Topics in English Studies 3c-0l-3cr
Prerequisites: Declared English major; ENGL 122, 202; minimum 24cr in major
Explores themes that may vary according to the faculty member teaching the course. Gives upper-level English majors an opportunity to share their expertise in their track: Literary/Textual/Cultural, Writing, Film, or Language Studies. Students are part of a community of learners and reflect on the ways disciplinary knowledge is constructed in English studies and will construct a portfolio of their work as an English major, both in and out of this class, to assess their growth and potential as readers, writers, and critical thinkers.

ENGL 485 Honors English Portfolio/H 1c-0l-1cr
Prerequisites: Declared English major; must be enrolled in English Honors Track; must be enrolled in ENGL 484
As one of the requirements for achieving English Honors, students construct an Honors version of the summative portfolio required of all BA majors. Complements the objectives and semester topic of the section of ENGL 484 in which the student is concurrently enrolled.

ENGL 493 Internship var-3-12cr
On-the-job training opportunities in related areas. Application and acceptance to internship program required.

ENVE: Environmental Engineering Department of Physics Kopchick College of Natural Sciences and Mathematics

ENVE 101 Introduction to Environmental Engineering 3c-0l-3cr
Introduces the principles of environmental engineering with specific focus on water pollution and control, hazardous substances and risk assessment, water and wastewater treatment systems, air-pollution and emission control, solid wastes, and global warming.

ENVE 201 Fluid Mechanics 3c-0l-3cr
Prerequisites: ENVE 101, MATH 125, PHYS 131
Applies basic laws of fluid mechanics with applications to engineering problems, hydrostatic pressure, buoyancy, open systems and control volume analysis, mass conservation and momentum conservation for moving fluids, viscous fluid flows, flow through pipes, and dimensional analysis.

ENVE 211 Statics and Solid Mechanics 3c-0l-3cr
Prerequisites: ENVE 101, MATH 125, PHYS 131
Examines principles of mechanics, force systems, equilibrium structures, distributed forces, centroids, stress and strain, torsion, bending of beams, shearing stress in beams, combined stresses, principal stresses, deflections of beams, and statically indeterminate members and columns.

ENVE 301 Environmental Aquatic Chemistry 3c-3l-4cr
Prerequisites: ENVE 101, CHEM 112 or 114
Examines fundamental principles of general, analytical, physical, and equilibrium chemistry applicable to water and wastewater treatment systems. Topics include thermodynamics and kinetics of acids and base reactions, carbonate chemistry (alkalinity), air-water exchange, precipitation and dissolution, oxidation-reduction, and chemical analysis of water and wastewater in a laboratory.

ENVE 311 Water Resources Engineering 3c-3l-4cr
Prerequisite: ENVE 201
Explores hydrologic engineering, including fundamentals of hydrology, rainfall-runoff modeling, hydraulic processes (including both pressurized pipe flow and open channel flow), and hydrologic frequency analysis. These fundamentals are then applied in the computation of design flows and in the analysis and design of hydraulic systems such as pipe networks and storm water management systems.

ENVE 461 Water and Wastewater Treatment 3c-0l-3cr
Prerequisites: BIOL 202, ENVE 301
An overview of engineering approaches to protecting water quality with an emphasis on fundamental principles. Explores design of systems for treating municipal wastewater and drinking water as well as physical, chemical, and biological processes, including sedimentation, filtration, biological treatment, disinfection, and sludge processing.

ENVE 471 Solid and Hazardous Waste Management 3c-0l-3cr
Prerequisites: BIOL 202, ENVE 311
Examines the principles of integrated solid waste management. An overview of municipal solid waste (MSW), industrial waste and hazardous waste management, including design and economic analysis. Explores the planning and engineering principles needed to address the growing and increasingly intricate problem of controlling and processing the refuse (solid waste) created by urban societies. Discusses options such as landfilling, composting and incineration from engineering, social, and regulatory perspectives. Reviews physical, chemical, and biological treatment of hazardous waste. Covers federal regulations, permitting, and public participation processes and innovative management practices associated with solid and hazardous waste.

ENVE 498 Environmental Engineering 3c-0l-3cr
Prerequisite: Senior standing (90 or more credits) or instructor permission
Capstone design experience involving an interdisciplinary environmental engineering project incorporating real-world clients. Includes visits and tours of field sites as well as interaction with professional engineers. Focuses on water treatment alternatives, regulatory operational needs, sustainability; and implementation of a realistic schedule and project budget.

FCSE 101 Personal and Family Management 3c-0l-3cr
Personal and family management as a system and its relationship to the global environment, individuals, and families. Formulation of goals, values, and standards; use of decision-making process; sustainability and utilization of resources.

FCSE 143 Financial Wellness 3c-0l-3cr
Takes a comprehensive, multidisciplinary approach, including a broad array of theories, principles, and concepts related to personal and family financial management. Emphasis is placed on methods and techniques for achieving financial wellness. Taught in a team-teaching/learning format.

FCSE 315 Consumer Economics and Family Finance 3c-0l-3cr
Applies economic, sociological, and psychological principles to family money management problems. Information needed to manage finances effectively and to become a rational consumer is presented.

FCSE 350 Teaching Family Life Education 3c-0l-3cr
Prerequisite: Family and consumer sciences education, child development and family relations, and disability services majors, or instructor permission
Emphasizes teaching family life education in family and consumer sciences classrooms and through community organizations and agencies. Lessons are planned and implemented using a variety of instructional methods incorporating adaptations and modifications for special needs learners, basic skills, global concerns, and use of a problem-solving/decision-making approach. Planning of content, learning activities, instructional materials, and evaluation based on clearly stated objectives is emphasized. A microcomputer spreadsheet is utilized to manage a department budget and a grade book. Participation in professional organization activities is expected.

FCSE 413 Problems in Consumer Economics 3c-0l-3cr
Prerequisite: FCSE 315 or Economics
Problems of consumer-seller relationships studied with an emphasis given...
to effects of current economic and social forces. Governmental and private protection agencies that aid the consumer are reviewed. Individual investigations required.

**FDNT 145 Personal Nutrition** 3c-0l-3cr
Prerequisite: FDNT 150 Foods
Evaluates food choices and behaviors that can be applied to everyday life. Presents evidence-based information about nutrients, weight control, diseases, and lifecycle nutrition. Includes emerging and alternative food and nutrition topics. Appropriate for students who are not nutrition majors or minors.

**FDNT 150 Foods** 3c-0l-3cr
Prerequisite: Grade of “C” or better in CHEM 101 or 111 or BIOL 104
Corequisite: FDNT 151
Applies basic principles of food composition, preparation, preservation, and sanitation.

**FDNT 151 Foods Laboratory** 0c-3l-1cr
Prerequisite: CHEM 101 or 111 or BIOL 104
Corequisite: Must be taken with FDNT 150
Applies basic principles of food preparation. Taken only by Food and Nutrition majors or Family and Consumer Science Education majors or by permission.

**FDNT 212 Nutrition** 3c-0l-3cr
Prerequisite: CHEM 102 or 112 or BIOL 104 and BIOL 106; sophomore standing
Examines sources and functions of nutrients, the interdependence of dietary essentials, and nutritive value of an optimum diet. Discusses dietary risk factors to chronic diseases and varied conditions in human life. Includes emerging and alternative food and nutrition topics.

**FDNT 213 Life Cycle Nutrition** 3c-0l-3cr
Prerequisite: FDNT 212 with a grade of “C” or better
A detailed study of nutrition during all stages of the human life cycle; current issues and research as they impact these developmental stages.

**FDNT 245 Sports Nutrition** 3c-0l-3cr
Prerequisite: FDNT 145 or 212
Emphasizes knowledge and application of sports nutrition principles. The impact of the macro- and micro-nutrients on physical performance is discussed in light of current scientific research and applied to realistic dietary recommendation for all types and levels of athletes.

**FDNT 250 Quantity Foods in Healthcare and Schools** 3c-6l-6cr
Prerequisite: FDNT 150, 151 or instructor permission
A problem-based learning approach to food service principles, which guide dietetic professionals in practice. Students research and present case studies within the scope of the healthcare industry, and school feeding includes procedures for inventory control, food production, and purchasing as applied to schools and the healthcare arena. Laboratory experience reinforces didactic concepts.

**FDNT 355 Medical Nutrition Therapy I** 3c-0l-3cr
Prerequisites: FDNT 212 with a grade of “C” or better and BIOL 155 or 150/151

**FDNT 362 Experimental Foods** 2c-3l-3cr
Prerequisites: FDNT 150, 355 or concurrently, MATH 217
The experimental study of foods, relating chemical and physical properties to reactions and processes occurring in food systems.

**FDNT 364 Methods of Teaching Food and Nutrition** 3c-0l-3cr
Prerequisite: FDNT 213 with a grade of “C” or better
Focuses on nutrition education methods to support health-promoting dietary behaviors for different populations in a variety of settings. Provides experience in the development of theory-based educational programming via assessing needs, developing objectives, creating/selecting accompanying materials and activities, implementing appropriate instructional strategies, assessment, and evaluation.

**FDNT 402 Community Nutrition** 3c-0l-3cr
...
Discusses community nutrition assessment, planning, implementation, and evaluation strategies. Reviews current food and nutrition programs. Examines U.S. nutrition policies and federal nutrition programs through a community nutrition lens.

**FDNT 410 Food, Nutrition, and Aging** 3c-0l-3cr
**Prerequisite:** Junior status
Relationship of food to health maintenance and special dietary problems during the middle and later years.

**FDNT 415 Sustainable Nutrition** 3c-0l-3cr
Explores food system sustainability issues from farm to fork, including food production, preparation, processing, packaging, and distribution. Assesses the sustainability of current dietary recommendations and the environmental impact of food choices. Evaluates food security from a national and global perspective.

**FDNT 422 Public Health Nutrition and Epidemiology** 3c-0l-3cr
**Prerequisites:** FDNT 145 or 212 and MATH 214 or 216 or 217, or department permission
Identifies population-based needs and approaches for prevention and alleviation of diet-related conditions. Explores methodological issues involved in the design, conduct, analysis, and interpretation of studies investigating the relationship between nutritional status, diet, and disease. Examines the application of nutrition research related to nutrition assessment and program and policy design and evaluation to improve the nutritional status and health of diverse population groups.

**FDNT 430 Professional Topics in Food and Nutrition** 3c-0l-3cr
**Prerequisites:** FDNT 355, 364, HOSP 256, PSYC 101
Topics include promoting food and nutrition services and programs, career planning and development, ethical challenges to dietitians, quality assurance standards, and impact on the legislative process.

**FDNT 445 Advance Sports Nutrition** 3c-0l-3cr
**Prerequisite:** FDNT 245
Examines and evaluates evidence-based sports nutrition guidelines and current research related to nutrition and athletic performance. Explores special populations, environments and clinical conditions related to nutrition and athletic performance. Includes an emphasis on dietary supplements and ergogenic aids for sport.

**FDNT 455 Medical Nutrition Therapy II** 3c-0l-3cr
**Prerequisite:** FDNT 355 with a grade of “C” or better
Pathophysiology of and evidence-based medical nutrition therapy for disorders of the gastrointestinal, renal, hepatic, and immune systems, inborn errors of metabolism, cancer. Nutrition support.

**FDNT 458 Advanced Human Nutrition** 4c-0l-4cr
**Prerequisites:** CHEM 255 or 351, FDNT 355, MATH 217
An in-depth study of the nutrients and their function within the cell. Incorporation of the principles of physiology and biochemistry in the study of nutrition. Emphasizes applying current research and evaluation of research methodology. (Does not count toward MS degree in FDNT requirements.)

**FDNT 463 Nutrition Counseling** 2c-3l-3cr
**Prerequisites:** FDNT 355, PSYC 101, FDNT 455 or concurrently
Use of intervention strategies in prevention and treatment of disease through diet. Supervised practicum (three hours per week) counseling clientele in normal and therapeutic nutrition.

**FDNT 470 Human Food Consumption Patterns** 3c-0l-3cr
**Prerequisites:** One social science course
An exploration of human food consumption behaviors from food production to individual and societal consumption patterns. Influencing factors discussed include agronomic, economic, geographical, nutritional, political, sociological, and psychological factors. The ethics and morality of food distribution will also be discussed. Students may not enroll in this course if they have taken the corresponding section of LBST 499 Food and Culture.

**FDNT 471 Integrative Nutrition in Complementary and Alternative Healthcare** 3c-0l-3cr
**Prerequisites:** FDNT 145, 212 or departmental permission
Explores the foundation of complementary, alternative, integrative, and functional nutrition theories and practices. Differentiates among traditional, complementary, alternative, integrative, and functional nutrition models as related to food, supplements, herbs, and disease. Evaluates current research related to complementary, alternative, integrative, and functional nutrition.

**FDNT 482 Independent Study** var-1-6cr
**Prerequisites:** Prior approval through advisor, faculty member, department chair, dean, and Office of the Provost; must have earned 60cr
Students with interest in independent study of a topic not offered in the curriculum may propose a plan of study in conjunction with a faculty member. Approval is based on academic appropriateness and availability of resources.

**FDNT 484 Senior Seminar** 1c-0l-1cr
**Prerequisite:** Senior status
Emphasizes individual review of food and nutrition literature with formal presentation and discussion of current research.

**FDNT 493 Internship** var-3-12cr
**Prerequisite:** Must have earned 60cr
An opportunity to work away from the university in supervised situations at healthcare facilities, foodservice, community, or nonprofit organizations. Students receive career-related experiences. Must meet university internship requirements.

*Note:* White uniforms, including white shoes, are required for all lab courses in which food is prepared. Students must meet the professional dress requirements of the department.

**FIAR: Fine Arts**
**College of Fine Arts**

**FIAR 101 Introduction to Fine Arts** 3c-0l-3cr
An exploration of visual art, theatre, and music, examining their conceptual and aesthetic underpinnings, selected works, and their primary and similar functions in the expression of cultural, political, and personal views of the world around us. Class experience includes the analysis of at least one major work of each form, attending at least two live performances, viewing of selected works, and creative activities. If it should be necessary for a student who fails this course to take a D/F repeat, any one of the following courses may be substituted: ARHI 101, MUHI 101, THTR 101, DANC 102.

**FIAR 401 Creativity and Innovation in the Arts** 3c-0l-3cr
Focuses on contemporary big ideas in the arts, the connections between the arts, and the place of the arts in broader society and in further cultivating innovative thinking in the arts community. Promotes student development of new ideas into viable potential directions for their future professional lives.

**FIN: Finance**
**Department of Finance and Legal Studies**
**Eberly College of Business and Information Technology**

**FIN 143 Financial Wellness** 3c-0l-3cr
Theories and principles related to the physical, mental, social and emotional wellness aspects of individual money management. Information is focused on building a sound financial foundation as a college student and can be applied throughout the life span to ensure financial well-being. Successful completion fulfills the Liberal Studies Dimensions of Wellness requirement. Cross-listed with ECON/ FCSE. Other 143 courses will also fulfill this requirement, and any of these courses may be substituted for each other and may be used interchangeably for D/F repeats but may not be counted for duplicate credit.

**FIN 300 Personal Finance** 3c-0l-3cr
**Prerequisites:** MATH 107/108, ACCT 201
Provides an opportunity for students to gain an in-depth understanding of the importance of personal finance. It is the first course as part of a track for those who are interested in becoming a Certified Financial Planner (CFP). This course does not fulfill the Dimensions of Wellness course requirement.

**FIN 310 Fundamentals of Finance** 3c-0l-3cr  
**Prerequisites for business majors:** ACCT 202, MATH 214  
**Prerequisites for nonbusiness majors:** ACCT 202, MATH 214 or 217 (MATH 214 recommended)  
The study of valuation models, financial statement analysis and forecasting, capital budgeting methods, and working capital management. Also includes an introduction to risk and return, capital markets and institutions, and security valuation.

**FIN 315 Financial Analysis Using Electronic Spreadsheets** 3c-0l-3cr  
**Prerequisite:** COSC/IFMG 101  
Develops the financial students’ computer modeling and analysis skills. Teaches how to utilize current computing resources, electronic spreadsheet, and other computing software to analyze, model, and solve a variety of financial problems.

**FIN 320 Corporate Finance** 3c-0l-3cr  
**Prerequisite:** Grade of “C” or better in FIN 310  
The study of corporate financial management and decision making, its theory, and application. Provides a higher level of study and many of the same topics covered in FIN 310, particularly in the area of capital budgeting. Other topics include capital asset pricing models, costs of capital, capital structure, leasing bond refunding, and financial distress.

**FIN 323 Retirement Planning** 3c-0l-3cr  
**Prerequisite:** FIN 300 and 310  
Introduces retirement planning concepts from both the employer/employee and individual client perspectives via theory based lectures and case studies. Examines the relationships between retirement plans and legal, tax, insurance, and other concepts as they relate to effective financial planning.

**FIN 324 Principles of Investments** 3c-0l-3cr  
**Prerequisite:** FIN 310  
An introduction to securities markets, trading, and valuation. Topics include security types and characteristics, the mechanics of trading, valuation models for fixed-income securities and common stock, mutual fund evaluation, basics of options and futures, and tax-advantaged investments.

**FIN 360 Insurance and Risk Management** 3c-0l-3cr  
**Prerequisite:** FIN 310  
Covers the nature of risk, the application of the risk management process to business risk management problems, and the essentials of insurance contracts and insurance markets. Discusses appropriate methods of risk control and risk financing. The primary focus is on accidental losses resulting from situations involving pure risks, although financial risk management techniques for dealing with speculative risks are introduced.

**FIN 365 Student Managed Investment Portfolio I–Valuation** 1.5c-0l-1.5cr  
**Prerequisite:** Finance and accounting majors or instructor permission  
Applies empirical and theoretical concepts to real-world portfolio management and investment decisions. Different investment strategies and valuation models are used to reinforce investment principles and practices learned in previous finance courses.

**FIN 366 Student Managed Investment Portfolio II–Performance** 1.5c-0l-1.5cr  
**Prerequisite:** FIN 365  
Students assess the performance of a stock portfolio managed by their peers. Performance measures focus on risk and return and include financial ratio analysis and benchmark comparisons.

**FIN 400 Estate Planning** 3c-0l-3cr  
**Prerequisite:** At least 90 earned credit hours  
Introduces legal, tax, insurance, financial, and other principles relating to estate planning via a combination of theory-based lectures, case studies, and simulations.

**FIN 401 Energy Finance** 3c-0l-3cr  
**Prerequisite:** FIN 310 or equivalent/permission  
Presents a strategic framework for examining energy finance strategies used primarily in the oil and gas industry. Discusses the wide range of tools available for financing energy projects such as equity, debt, tax credits, and other methods used by corporations. Extends the financing framework by describing current theories and applications in developing the energy product and how it is priced and delivered to the end user.

**FIN 410 Financial Institutions and Markets** 3c-0l-3cr  
**Prerequisite:** FIN 324  
A review of the structure of financial institutions and money and capital markets. Provides the knowledge of the theory and practices of managing financial institutions, with particular emphasis on the management of financial risks.

**FIN 420 Investment Analysis** 3c-0l-3cr  
**Prerequisites:** FIN 320, 324  
Integrates the work of the various courses in the finance areas and familiarizes the student with the tools and techniques of research in the different areas of investments.

**FIN 422 Seminar in Finance** 3c-0l-3cr  
**Prerequisites:** FIN 320, 324, seniors only  
Primarily for the senior finance major, covers topics in all areas of finance by using recent articles, cases, discussions, speakers, and a financial simulation game.

**FIN 424 International Financial Management** 3c-0l-3cr  
**Prerequisite:** FIN 310  
The financial management concepts, useful in a single-country context, are adapted for the international variables and constraints caused by being international. Provides insight into unique issues and problems the manager of the multinational enterprise will face, such as working capital management, capital budgeting process, financing and investing abroad, capital and money markets, foreign exchange markets, and risk management.

**FIN 425 Financial Derivatives** 3c-0l-3cr  
**Prerequisites:** FIN 320 and 324 or equivalent/permission for FIN 425 and 324 or equivalent/permission for FIN 525  
Provides an understanding of how the derivatives markets work, how they are used, and how prices are determined. Includes the common types of derivatives, their characteristics and properties, and trading methods and strategies. Also, covers fundamental pricing models based on arbitrage pricing theory, binomial, and Black-Scholes models.

**FIN 426 Seminar in Financial Planning** 3c-0l-3cr  
**Prerequisite:** FIN 300, 324, 400  
Integrates coursework in various personal finance areas with actual case applications.

**FIN 481 Special Topics** var-3cr  
**Prerequisite:** As appropriate to course content  
Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 481 are offered primarily for upper-level undergraduate students.

**FIN 482 Independent Study** var-3cr  
**Prerequisite:** Prior approval through advisor, faculty member, department chair, dean, and Office of the Provost  
Students with interest in independent study of a topic not offered in the curriculum may propose a plan of study in conjunction with a faculty member. Approval is based on academic appropriateness and availability of resources.

**FIN 493 Finance Internship** var-3-12cr  
**Prerequisites:** FIN 310, 315, 324; prior approval through advisor, faculty
FRNC 101 Basic French I  
**Prerequisite:** Appropriate score on the placement test (WebCAPE score between 0 and 285)  
For beginning students. Not open to native speakers, except by special permission of department. Students must achieve an appropriate placement test score to enroll (score between 0 and 285). Special focus on aural/oral skills. Students learn in a multimedia environment. Students confer and ask questions in simple present tense. They become acquainted with elements of daily lives of native speakers of French around the world. Attendance is mandatory. May not register for, or take a D/F repeat in, FRNC 101 when credit has already been received for a higher-numbered French course.

FRNC 102 Basic French II  
**Prerequisite:** FRNC 101, or qualifying score on the WebCAPE placement test (286-362), or instructor permission  
For beginning students. Students must achieve an appropriate placement test score to enroll (score between 286 and 362). Special focus on aural/oral skills. Students learn in a multimedia environment. Students confer and ask questions in simple present tense. They can now express commands and directions and are introduced to the expression of punctual actions in the past. They further investigate the daily lives of native speakers of French around the world. Attendance is mandatory. May not register for, or take a D/F repeat in, FRNC 102 when credit has already been received for a higher-numbered French course.

FRNC 201 Intermediate French  
**Prerequisite:** FRNC 102, or qualifying score on the WebCAPE placement test (score above 362), or instructor permission  
Continued study of French; development of listening, reading, speaking, and writing, but primary emphasis is on aural/oral skills. Students use a multimedia environment to learn to converse and ask questions in the past. Students learn the different way to express completed action that occurred at a specific time in the past vs. expressing an action that continued in the past over an indefinite, undetermined period of time; students review how to narrate and describe in the past, ask and give directions, talk about the future, avoid repetitions, learn to combine simple sentences, express and understand conditional sentences, express and understand subjective statements, and understand indirect discourse. Through the use of multimedia, students continue their inquiries into the daily lives of native speakers of French around the world. Attendance is mandatory. May not register for, or take a D/F repeat in, FRNC 201 when credit has already been received for a higher-numbered French course. Liberal Studies Humanities credit is given for this course.

FRNC 220 Intermediate French Conversation  
**Prerequisite:** FRNC 201, or qualifying score on the WebCAPE placement test (score above 402), or instructor permission  
Intensive work on communication skills with specific emphasis on spontaneous interpersonal speaking, discourse strategies, vocabulary building, and pronunciation. Required for all minors. Students may not register for, or take a D/F repeat in, FRNC 220 when credit has already been received for a higher-numbered French course.

FRNC 230 Intermediate French Composition and Grammar  
**Prerequisite:** FRNC 220 or equivalent; may be taken concurrently  
Intensive practice in written expression and communication in French together with a grammar review. Intermediate-level language course with the goal of fostering writing in French for a variety of practical purposes. Review and expansion of specific grammar points are integrated into each unit. Taught in French.

FRNC 341 Advanced French Grammar  
**Prerequisite:** FRNC 341 or 353  
Intensive practice in written expression and communication in French together with a grammar review. Intermediate-level language course with the goal of fostering writing in French for a variety of practical purposes. Review and expansion of specific grammar points are integrated into each unit. Taught in French.

FRNC 441 Advanced French Grammar  
**Prerequisite:** FRNC 341  
Builds on previous knowledge of French grammar, with a view to perfecting control of more complex structures. These structures include complex sentences, the subjunctive, hypothetical statements, and passive voice. Emphasizes written expression.

FRNC 481 Special Topics  
**Prerequisite:** As appropriate to course content  
Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 281 are offered primarily for lower-level undergraduate students.

FRNC 483 Honors Thesis  
**Prerequisites:** Admission to departmental honors program; prior approval through advisor, faculty member, department chair, dean, and Office of the Provost

An intensive, focused study involving independent research culminating in
FSMR 112 Fundamentals of Clothing Construction  1c-3l-3cr
Principles and techniques involved in fundamental clothing construction and fitting are analyzed. Directed laboratory experiences provide an opportunity to solve individual problems in garment structure through the application of principles.

FSMR 158 Fashion Show Production  3c-0l-3cr
Focuses on developing a practical understanding of fashion through image, language, and events. All aspects of production and management of fashion shows are addressed, including the importance of teamwork. (Offered as FSMR 358 before 2016-17.)

FSMR 180 Introduction to Fashion  3c-0l-3cr
A survey of fashion careers and industry functions including design, production, retail channels, and current trends.

FSMR 212 Advanced Clothing Construction  1c-3l-3cr
Prerequisite:  FSMR 112 or placement (by exam)
Principles of advanced fitting and clothing construction are applied and analyzed. Offered even years, fall semester.

FSMR 215 Textiles  3c-0l-3cr
Prerequisite: Sophomore standing
An interpretation of basic textile knowledge with emphasis on fiber, yarn, fabric structure, coloration, and fabric finishes. Discussions include importance of factors related to consumer information, protection, and satisfaction. (Offered as FSMR 314 before 2016-17.)

FSMR 252 Aesthetics of Fashion  3c-0l-3cr
The study of contemporary apparel design and the relationship of design elements and principles to personal characteristics and social/professional orientation.

FSMR 258 Fashion Brand Merchandising  3c-0l-3cr
Focuses on contemporary concepts, phrases, branding terms, and theoretical frameworks for most fashion brand-relative activities. Applies concepts about the role of branding in fashion through projects, such as case studies, exercises, shadowing activities, and developing their own fashion brand.

FSMR 262 Fashion Forecasting  3c-0l-3cr
Prerequisite: FSMR 180
A study and an analysis of the global fashion society and the trends that emerge. Evolving styles, changes in buying habits, and economic conditions are assessed to predict fashion consumer behavior. An emphasis on the interrelationships among apparel industry segments and the application of fashion theories to the forecasting process.

FSMR 280 Introduction to Apparel Buying  3c-0l-3cr
Prerequisites: FSMR 180 with a grade of “C” or better and ACCT 201
Focuses on using mathematical concepts in merchandising applications used for apparel buying. Students develop and determine assortment plans, cost of merchandise, profitability, and retail sale prices.

FSMR 281 Special Topics  var-1-3cr
Prerequisite: As appropriate to course content
Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 281 are offered primarily for lower-level undergraduate students.

FSMR 303 Visual Merchandising  3c-0l-3cr
Prerequisite: Junior standing
Students design and arrange display and selling areas in relationship to merchandising trends and consumer demands. Emphasizes promotion techniques and merchandise sales through effective use of space, design, and color.

FSMR 357 Global Issues in Textiles and Apparel  3c-0l-3cr
Prerequisite: Junior standing
The study of the global textiles and apparel industry with emphasis on the US textile complex and the US market within an international context.

FSMR 380 Applications in Apparel Buying  3c-0l-3cr
Prerequisite: FSMR 280 with grade of “C” or better
Focuses on the development of a six-month stock and sales plan for a retail business using computer applications. Includes projecting retail sales, controlling inventory, calculating the amount of merchandise to purchase, determining markup percentages, and effectively using markdowns to manage inventory.

FSMR 385 Ready-to-Wear Analysis  1c-3l-3cr
Prerequisite: FSMR 112
An examination and evaluation of the quality of ready-to-wear apparel through construction, style, fit, marketability, and price.

FSMR 434 Quality Control in Textiles  1c-3l-3cr
Prerequisite: FSMR 215
Physical properties explored through microscopic examination and use of textile testing equipment for fabric analysis.

FSMR 456 Historic Costume  3c-0l-3cr
Prerequisite: Junior standing
A chronological study of historic costume from ancient times to the present day with emphasis on the effect of aesthetic, economic, geographic, political, religious, and social factors on the design of clothing worn.

FSMR 468 Supply Chain Management in Textiles and Apparel  3c-0l-3cr
Prerequisite: Junior standing or above
Examines supply chain management for textile and apparel products through the network of suppliers, manufacturers, distributors, retailers, and customers. Emphasis is placed on the dynamic nature of supply chain management in the global textile and apparel industry and the interrelationships among the segments of the textile-apparel-retail complex.

FSMR 480 Professional Development in the Fashion Industry  3c-0l-3cr
Prerequisite: Senior standing
Knowledge gained in major and additional requirement courses is applied to individual career goals. Students have the opportunity to pursue related areas not directly covered in previous course work, with emphasis on independent research, analytical thinking, and communication skills.

FSMR 481 Special Topics  var-1-3cr
Prerequisite: As appropriate to course content
Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 481 are primarily for upper-level undergraduate students.

FSMR 482 Independent Study  var-1-3cr
Prerequisite: Prior approval through advisor, faculty member, department chair, dean, and Office of the Provost
Particular consumer considerations are independently investigated in the areas of housing, home equipment, interior design, clothing, and textiles, or in the management of resources. May be repeated for a total of 3 cr. Students meet with a faculty member at least five hours per credit.

FSMR 493 Internship  var-1-12cr
Prerequisites: Approval of instructor and department chair; upper-level standing
A practical experience related to the student’s major area of study with objectives, supervised experience, and evaluation. May be repeated for a total of 12 cr. (Offered as CNSV 493 before 2016-17.)
GEOG 101 Geography of Human Environment Interaction 3c-0l-3cr
The physical environment is modified by human activities, largely as a consequence of the ways in which societies value and use earth’s natural resources, but human activities and distributions are, in turn, influenced by earth’s physical features and processes. These themes are addressed by examining the geography of environmental impacts such as tropical deforestation, global climate change, energy development, urban growth, and agricultural land use. Also considered are natural hazards such as hurricanes, earthquakes, volcanic eruptions, and flooding.

GEOG 102 Geography of United States and Canada 3c-0l-3cr
A conceptually based introductory-level geography course that focuses on the American landscape. Includes mapping culture regions; tracing settlement patterns; resource use; environmental perceptions; the interplay of urbanization, industrialization, postindustrialization, and spatial mobility; the occurrence of economically disadvantaged landscapes; and the role individuals and society have in the creation of the graphic landscape.

GEOG 104 World Geography: Global Context 3c-0l-3cr
Relates theories of the discipline of geography to current world issues and global patterns. Emphasizes local versus global strategies of resource management, spatial legacies of colonialism, contemporary multiscale issues with workforce migration, urban structure, disease, and globalization. Focuses on global patterns of development through comparative approaches and understanding of human and physical geographic characteristics of world regions.

GEOG 105 Our Digital Earth: Mobile Devices, Web Applications, and Geospatial Technology 3c-0l-3cr
An overview of evolving geographically-enabled (geospatial) technologies and applications, and explores the wide-ranging impacts of geospatial technology on human decision-making, perceptions, and society. Covers location-based services, including personal navigation, global positioning systems (GPS), web-based mapping services, and social networks with real-time location information commonly found on personal mobile devices such as phones, tablets, and personal computers. Explores the technologies and societal implications of our digital planet with particular focus on the geospatial technologies that make geographically-enabled mobile and web applications possible.

GEOG 109 Geographic Information Science and Systems for Energy Applications 3c-0l-3cr
Provides students with knowledge of the theoretical basis of Geographic Information Systems (GIS) and geospatial technologies and their application for the energy sectors. Covers the specifics of selected GIS and database software packages. Develops skills to conceptualize energy-related GIS applications, use GIS software packages, manipulate and query geographic data to solve problems, perform simple spatial analysis, and understand how to utilize GIS for energy-related analyses.

GEOG 213 Cartography and Map Design 3c-0l-3cr
Introduces principles of thematic map construction. Emphasizes techniques of choropleth mapping and the production of scientific graphs and charts. (Also offered as RGPL 213; may not be taken for duplicate credit.)

GEOG 222 Geography of National Parks 3c-0l-3cr
Analyzes the spatial characteristics of America’s National Park System. Examines the national parks idea with respect to wilderness conservation, preservation, and public presentation of natural and historic sites and landscapes; investigates the physical geography of national parks as defined by ecoregions (physiography, climate, natural vegetation); and evaluates landscape designs within the National Parks System relative to dominant planning techniques of the past and present.

GEOG 230 Cultural Geography 3c-0l-3cr
Introduces cultural geography, including population, ethnicity and race, agriculture, resources, economic organization of space, religion, language, urban and political geography, human relationships with the natural environment, culture regions, spatial diffusion, globalization, and cultural landscapes.

GEOG 231 Economic Geography 3c-0l-3cr
An introduction to geographic concepts, methods, and skills related to spatial patterns of production, consumption, and exchange over the earth’s surface. Emphasizes a global perspective using a combination of theoretical and empirical concepts.

GEOG 232 Urban Landscapes 3c-0l-3cr
Introduces basic concepts of urban morphology and landscapes including site, situation, function, urban land use, urban structure, and urban hierarchy. Explores relationships between urban structure and urban planning. (Also offered as RGPL 232; may not be taken for duplicate credit.)

GEOG 251 Geography of Pennsylvania 3c-0l-3cr
Regions of Pennsylvania are examined in detail to identify man-environment relationships. Soils, topography, climate, vegetation, population, and economic patterns are studied.

GEOG 253 Geography of Europe 3c-0l-3cr
A critical analysis and understanding of historic factors that led to the creation of the European Union. Critically examines current and future economic and political challenges that face the European Union. A survey of the human geography and physical resources of contemporary Europe in historical and global context. Covers a broad range of topics, including Europe, in historic perspective, physical geography, human-environment interactions, population dynamics, culture and change, economic and agricultural development, urbanization and migration, and political geography.

GEOG 254 Geography of Russia, Central Eurasia, and Eastern Europe 3c-0l-3cr
Examines the Russian Federation, former Soviet satellites, and the European and Asiatic successor states. The region is the realm of Eurasian languages, historical schisms between eastern and western Europe, and the geographical legacies of the Tsarist and Soviet empires. Topics include terrain and environment, population, economic regions, resources, and geopolitics. These are studied in the context of environmental location and position between Eastern and Western power centers of the 21st century.

GEOG 255 Geography of Africa 3c-0l-3cr
A critical geographic analysis and understanding of Africa, and the continent’s level of development against the background of traditional misconceptions about the region. Offers a survey of the human geography and physical resources of contemporary Africa in a historical and global context. Covers a broad range of topics, including Africa, in historical perspective, physical geography, human-environment interactions, population dynamics, culture and change, economic and agricultural development, urbanization and migration, and political geography.

GEOG 256 Geography of East and Southeast Asia 3c-0l-3cr
A critical geographic analysis and understanding of East and Southeast Asia including its natural environment, human landscapes, and historical geography, and how these aspects of place interact with each other in space. Examines East and Southeast Asia at multiple scales by providing a comprehensive analysis of spatial patterns within the region, across the region as a whole, and by considering how East and Southeast Asia interface with a globalizing planet. Explains the political and economic evolution of this region from the period of global colonialism, through the rise and fall of Marxist ideology to its current position as the emergent Asian Pacific Rim. Covers a broad range of topics, including: historical geography; physical geography; human-environment interactions; population dynamics; cultural geography; economic and agricultural development; urbanization and migration; and political geography. (Titled Geography of East Asia before 2014-15.)

GEOG 257 Geography of South and Southwest Asia 3c-0l-3cr
A geographical exploration and analysis of South and Southwest Asia. A survey overview of the complex physical and human geographies of the region, including demographic transition, gender inequalities, issues of development in the postcolonial global era, religious diversity, the Israeli-Palestinian conflict, US foreign policy toward the region, the exploitation of
Examines the elements of weather and climate on earth. The location and geography of the United States, and historical perspectives on the cultural landscape. Emphasizes historical events that underpins class discussions and exercises exploring human spatial behavior, environmental perception, and place identity.

GEOG 313 Cartography II 3c-0l-3cr
Prerequisite: GEOG 213
Provides an understanding of the compilation and use of maps and quantitative data. Develops skills essential to the construction of various types of maps. (Also offered as RGPL 313; may not be taken for duplicate credit.)

GEOG 314 Map and Photograph Interpretation 3c-0l-3cr
Maps and air photographs, along with remote sensing materials, permit inventory, and analysis of geologic, land use, urban development, and other landscape phenomena. The understanding of these materials and associated tools for their use is presented. (Also offered as RGPL 314; may not be taken for duplicate credit.)

GEOG 316 Introduction to Geographic Information Systems 3c-0l-3cr
Presents automated methods for creating, maintaining, and analyzing spatial data. Includes (1) specialized GIS hardware and software; (2) vector vs. raster vs. object-oriented spatial data structures; (3) creation and manipulation of geographic data files; (4) database design and management concepts; (5) spatial analysis; and (6) cartographic design. (Also offered as RGPL 316; may not be taken for duplicate credit.)

GEOG 331 Population Geography 3c-0l-3cr
Spatial variations in numbers, characteristics, and dynamics of human population, models, and theoretical constructs relevant to demographic structures and processes are studied, as well as major world and regional problems.

GEOG 333 Trade and Transportation 3c-0l-3cr
Deals with the spatial aspects of transportation systems and their use. Discusses circulation, accessibility, time and distance concepts, and trade patterns. (Also offered as RGPL 333; may not be taken for duplicate credit.)

GEOG 334 Political Geography 3c-0l-3cr
Geographic factors and conditions are analyzed as they relate to the character and function of states. Political institutions are evaluated in light of geographic conditions.

GEOG 336 Social Geography 3c-0l-3cr
Examines spatial dimensions of American society emphasizing the patterns and places that result from the human use of space. Explains how social theory has influenced the discipline of geography with respects to understanding space from a positivist, humanist, and structuralist perspective, and how this has changed with the shift from modern to postmodern interpretations of place. This understanding of social theory is the base for using positivist techniques involving census statistics and mapping procedures to analyze geographic conditions and processes.

GEOG 337 Historical Geography 3c-0l-3cr
Includes studies of past geographies, geographical change through time, and historical perspectives on the cultural landscape. Emphasizes historical geography of the United States.

GEOG 341 Climatology 3c-0l-3cr
Examines the elements of weather and climate on earth. The location and causes of global climatic regions are examined in relation to moving pressure and wind systems. Also considers the climatic history of the planet and recent human modifications of the atmospheric environment. (Also offered as RGPL 341; may not be taken for duplicate credit.)

GEOG 342 Physiography 3c-0l-3cr
Focuses on landform types and their spatial distribution. Emphasizes the tectonic forces that build landforms and the weathering and erosional processes that erode and shape surface features. The relationship between human activities and landforms is also considered. (Also offered as RGPL 342; may not be taken for duplicate credit.)

GEOG 343 Fresh Water Resources 3c-0l-3cr
Focuses on surface and groundwater as a resource with unique properties. Fresh water is defined physically by storage in the hydrologic cycle and the values assigned by different cultures. Problems featured relate to consumptive and withdrawal water uses, the problems of water supply and scarcity, water law and its inconsistencies, flooding and floodplain management, sources of contamination and pollution, wetlands, and case studies of selected river basins. (Also offered as RGPL 343; may not be taken for duplicate credit.)

GEOG 345 Biogeography for Environmental Managers 3c-0l-3cr
Prerequisite: One course from GEOG 341, 342, BIOL 103, 115
Examines the distribution of plants and animals across the earth’s surface, as influenced by natural and human processes. Emphasizes landscape and regional habitat dynamics as they relate to environmental planning and management. Field trips supplement lectures and readings. (Also offered as RGPL 345; may not be taken for duplicate credit.)

GEOG 404 Transportation Planning 3c-0l-3cr
Prerequisite: GEOG/RGPL 333 or RGPL 350 or one course from the Economic Geographer Concentration
Introduces the major themes and methods of transportation planning, particularly in an urban context. It is project oriented and supported by readings from the scholarly literature covering themes such as modes of transit, land use implications, and commercial development. Reading assignments are organized topically and coordinated with two workbook projects that develop applied skills. Topics include theory, empirical description, and methodological practice. (Also offered as RGPL 404; may not be taken for duplicate credit.)

GEOG 409 Spatial Analysis Applications in the Energy Sectors Workshop 3c-0l-3cr
Prerequisite: GEOG 109
Characterizes the spatial representation and analysis techniques used by public, private, and nonprofit entities engaged in the energy industries. Focuses in particular on the implementation of energy resource applications including exploration and development, environmental and cultural compliance, logistics, production analysis, and infrastructure maintenance.

GEOG 411 History of Geography 3c-0l-3cr
Prerequisites: GEOG 230 and at least 9 other GEOG credits
Deals with history of the discipline, great ideas, major scholars, leading problems, and unresolved issues.

GEOG 415 Introduction to Remote Sensing 3c-0l-3cr
Introduces concepts, principles, methods, and theories applied in and through remote sensing of the earth’s physical and cultural features. Includes understanding the physical principles of the electromagnetic spectrum, the technological underpinnings of a variety of sensors, and applications of these technologies. Applies industry standard software packages in the geospatial sciences to illustrate course concepts and build software recognition and application skills. (Also, offered as RGPL 415; may not be taken for duplicate credit.)

GEOG 419 Geographic Information Systems (GIS) for Environmental Applications 3c-0l-3cr
Prerequisite: 60 completed credits or instructor permission
Provides knowledge of the theoretical basis of geographic information systems (GIS) and its applications for environmental scientific analysis. In the process of demonstrating some of the capabilities of GIS, the specifics of selected GIS and database software packages will also be covered. Students develop the skills to use GIS packages, manipulate and query geographic data to solve problems, perform simple spatial analysis, and understand how to utilize GIS for environmental analysis and resource management.
GEOG 421 Enterprise GIS Management 3c-0l-3cr
Prerequisite: GEOG 424 or instructor permission
Principles and methods for creating, operating, maintaining, and managing data for multiuser geospatial information systems are studied. Each student will customize, document, and operate a multiuser geographic information system of his or her design. (Also offered as RGPL 421; may not be taken for duplicate credit.)

GEOG 424 Technical Issues in Geographic Information Systems 3c-0l-3cr
Prerequisite: GEOG 316 or 419
Uses project-based approach to develop and maintain a geographic information system (GIS). Designs and implements functional systems through co-operative learning. Covers methods for designing GIS to user specification, data collection, data input, project management, and system documentation. (Also offered as RGPL 424; may not be taken for duplicate credit.)

GEOG 425 Global Positioning Systems (GPS) Concepts and Techniques 3c-0l-3cr
Prerequisite: 60cr completed or instructor permission
Provides knowledge of the theoretical basis and practical applications of global positioning systems (GPS). Students gain hands-on experience using GPS receivers and GPS observables, as well as the ability to determine point and relative position fixes from pseudorange and carrier phase measurements. Students are exposed to industry-standard GPS hardware and software, as well as appropriate techniques for processing GPS data to achieve necessary levels of horizontal and vertical positional accuracy. Integration of GPS and geographic information systems (GIS) will also be discussed.

GEOG 427 GeoDesign 3c-0l-3cr
Prerequisite: GEOG/RGPL 424
Provides an introduction and application of the theory and techniques of the GeoDesign framework. Involves data-driven decision making for collaborative community development and land-use planning and is an emerging conceptual framework for place-based decisions and designs. Integrates knowledge of community planning, decision making, landscape design, and Geospatial techniques to produce a professional quality project. (Also offered as RGPL 427; may not be taken for duplicate credit.)

GEOG 435 Geography of Energy 3c-0l-3cr
Covers patterns and problems of energy production and consumption in human societies. Descriptions of what, where, and how much are combined with issues such as technological change, conservation, allocation, environmental impacts, and economic development. Specific topics include global history and trends of energy development, pricing systems, types of energy, locations of production areas, and the energy status of the United States.

GEOG 440 Conservation: Environmental Analysis 3c-0l-3cr
Problems of exploitation and utilization of regional resources such as soils, minerals, forests, and wildlife are considered in relation to population growth and regional planning and development. (Also offered as RGPL 440; may not be taken for duplicate credit.)

GEOG 444 Energy Development and Compliance 3c-0l-3cr
Prerequisite: GEOG 435 or instructor permission
Reviews and characterizes energy resources found in northern Appalachia and the logic and techniques used to identify, quantify, and regulate their development and extraction. Focuses in particular on the spatial dimensions of shale gas, coal, and wind as major energy sources in northern Appalachia and deals with topics such as exploration, environmental and cultural compliance, logistics, production analysis, and infrastructure maintenance.

GEOG 445 Energy Development and Compliance II 3c-0l-3cr
Prerequisites: GEOG 316, 335, 444; or instructor permission
Reviews and characterizes the spatial representation and analysis techniques used by public, private, and nonprofit entities engaged in the energy industries. Focuses in particular on the implementation of energy resource applications such as exploration and development, environmental and cultural compliance, logistics, production analysis, and infrastructure maintenance.

GEOG 446 Remote Sensing and Spatial Data Acquisition 3c-0l-3cr
Prerequisite: GEOG 445
Introduces fundamental aspects of unmanned aerial systems (UAS), including relevant federal, state and local regulations. Covers UAS functionality, including components, technology and operational issues. Examines scientific technological principles underlying UAS flight and data acquisition. Covers UAS component evaluation and assembly, pre-flight procedures, flight mission planning, and execution of basic flight skills.

GEOG 447 Conservation and Environmental Analysis 3c-0l-3cr
Problems of exploitation and utilization of regional resources such as soils, minerals, forests, and wildlife are considered in relation to population growth and regional planning and development. (Also offered as RGPL 440; may not be taken for duplicate credit.)

GEOG 454 GIS Analysis of Public Health 3c-0l-3cr
Prerequisites: GEOG/RGPL 316 or GEOG 417
Explores GIS-based public health analysis methods that are employed to understand the distribution and nature of public health problems, health disparities and access to health care services, and potential location-based strategies or interventions. Demonstrates knowledge of cartographic and spatial analyses and how they are used in the field of Public Health. Explores typical spatial public health analysis techniques, as well as demonstrates the ability to select appropriate data and analytical methods to implement GIS-based analyses.

GEOG 455 Advanced Remote Sensing 3c-0l-3cr
Prerequisite: GEOG/RGPL 415
Expands beyond basic principles of remote sensing to understand and apply complex methods of data collection, normalization, and analysis. May cover radiometric normalization, spectral transformations, change detection, object oriented classification, spatial analysis and filtering, accuracy assessment, and application of learned techniques. A research intensive experience with a project and paper demonstrating acquired knowledge and application of techniques to a variety of physical and human processes. (Also offered as RGPL 455; may not be taken for duplicate credit.)

GEOG 460 Foundations of Unmanned Aerial Systems Science and Applications 3c-0l-3cr
Introduces fundamental aspects of unmanned aerial systems (UAS), including relevant federal, state and local regulations. Covers UAS functionality, including components, technology and operational issues. Examines scientific technological principles underlying UAS flight and data acquisition. Covers UAS component evaluation and assembly, pre-flight procedures, flight mission planning, and execution of basic flight skills.

GEOG 462 Planning Policy, Implementation, and Administration 3c-0l-3cr
Prerequisite: RGPL 350
Focuses on the planning and implementation of policies to manage the location, timing, type, and intensity of land development. Explores the multi-step process from community plan to project completion. Examines student's role in the public environment in which community plans are developed and formulated, and how they are used to semi-automate and plan the real-world problems of identifying projects, building agency and interagency consensus, finding funding, putting together a project plan, project management, personnel, and budget to project completion. (Also offered as RGPL 462; may not be taken for duplicate credit.)

GEOG 463 Unmanned Aerial Systems for Remote Sensing and Spatial Data Acquisition 3c-0l-3cr
Prerequisite: GEOG 460
Examines concepts and techniques involved in the implementation of Unmanned Aerial Systems (UAS) for the collection of remote sensing and spatial data acquisition. Emphasizes acquisition of the knowledge and skills necessary to undertake manual and automated UAS flights for spatial data acquisition, such as: fundamental photogrammetry concepts, UAS mission planning, GPS/GNSS ground control, UAS airborne navigation, and processing of UAS-collected data into data deliverables.

GEOG 464 Land Use Policy 3c-0l-3cr
An introduction and an overview of land use issues at the regional, state, and federal levels. Emphasizes the evolution of contemporary policy strategies, constitutional issues, and regional controversies involved in the regulation of metropolitan growth, central city decline, and management of public lands.

GEOG 475 Spatial Analysis Techniques 3c-0l-3cr
Prerequisites: GEOG 316 or 419
Presents concepts underlying spatial analysis techniques and provides hands-on experience operationalizing spatial analysis methods through use of Geographic Information Systems (GIS) hardware and software.

GEOG 481 Special Topics 3c-0l-3cr
Prerequisite: As appropriate to course content

Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 481 are primarily for upper-level undergraduate students. (May also be offered as RGPL 481; may not be taken for duplicate credit under same title.)

**GEOG 482 Independent Study** var-1-3cr
Prerequisite: Prior approval through advisor, faculty member, department chair, dean, and Office of the Provost

Students with interest in independent study of a topic not offered in the curriculum may propose a plan of study in conjunction with a faculty member. Approval is based on academic appropriateness and availability of resources.

**GEOG 484 Field Studies in Geography and Social Studies** var-1-3cr
Prerequisite: Instructor permission

Immerses the student in a regional environment. Helps the student to see critically and to interpret a cultural landscape. The experience is predominantly off campus. Using a combination of structured field exercises, culturally specific readings, primary and secondary data, and standard geographic field techniques, the course strives to develop a deeper affective and cognitive understanding of a cultural region. May be repeated under a different study area title.

**GEOG 488 Geospatial Intelligence Capstone** 3c-0l-3cr
Prerequisite: GEOG/RGPL 213, 316, 415, and MLSC 201 or PLSC 465 Synthesizes concepts, skills, and techniques learned in prerequisite courses in the Geospatial Intelligence certificate curriculum to develop an applied geospatial intelligence project. Includes spatial data acquisition, processing, analysis and reporting to geospatial intelligence trade standards, as well as a culminating presentation of the project.

**GEOG 493 Internship** var-3-12cr

Professional learning experience with emphasis on application of academic background. Open to majors and minors in geography with a total of 60cr and 15cr in the major. See internship supervisor for additional information.

**GEOG 498 Research Seminar** 3c-0l-3cr
Prerequisite: GEOG 411

This senior seminar and workshop constitute a capstone course that focuses on recent research in the major field. Students carry out an applied research project on a topic of local or regional importance. (Also offered as RGPL 498; may not be taken for duplicate credit.)

**GEOG 499 Independent Study** var-3-6cr

Independent research and study under faculty direction. Interested students should approach department chair for information.

**GEOS: Geoscience**

**Department of Geoscience**

**Kopchick College of Natural Sciences and Mathematics**

**GEOS 101 The Dynamic Earth** 3c-0l-3cr
Prerequisite: No geoscience majors/minors

Examines the constant changes that affect the rocky surface of our planet. From volcanic eruptions and catastrophic earthquakes to the slow drift of continents and passage of ice ages, earth processes have shaped the history of life and altered the development of human civilization.

**GEOS 102 The Dynamic Earth Lab** 0c-2l-1cr
Prerequisite: No geoscience majors/minors

Corequisite: Enrollment in GEOS 102 requires corequisite or previous enrollment in GEOS 101

Introduces the techniques geologists use to study the earth and reconstruct its past. Labs cover minerals, rocks, map interpretation, and fossil identification and may include field trips during the scheduled lab period.

**GEOS 103 Oceans and Atmospheres** 3c-0l-3cr
Prerequisite: No geoscience majors/minors

The earth’s oceans and atmosphere play a crucial role in determining the pace and extent of changes occurring to our global environment. Examines the composition and character of these components and their interaction with other major components of the earth system.

**GEOS 104 Oceans and Atmospheres Lab** 0c-2l-1cr
Prerequisite: No geoscience majors/minors

Corequisite: Enrollment in GEOS 104 requires corequisite or previous enrollment in GEOS 103

Introduces the techniques oceanographers and meteorologists use to study the earth’s oceans and atmospheres and reconstruct their evolution. Labs cover seawater processes, oceanic circulation, marine life, atmospheric structure, and weather.

**GEOS 105 Exploring the Universe** 3c-0l-3cr
Prerequisite: No geoscience majors/minors

Examines the history of time; the reasons for the seasons; the characteristics of the planets, moons, stars, and galaxies; and the history and future of space exploration.

**GEOS 106 Exploring the Universe Lab** 0c-2l-1cr
Prerequisite: No geoscience majors/minors

Corequisite: Enrollment in GEOS 106 requires corequisite or previous enrollment in GEOS 105

Introduces the techniques astronomers use to study the nature and motions of objects in the sky, including the sun, moon, planets, and stars. Includes two observations held at night.

**GEOS 111 Earth and Environmental Systems** 3c-2l-4cr
Prerequisite: Designed for freshman and sophomore students in disciplines that require a deeper understanding of the Earth’s systems, particularly science education, anthropology, geography and geoscience majors.

Examines environmental science from an Earth systems science perspective. Introduces the interactions between various systems that make up the Earth’s critical zone (the near-surface interface between humans and our planet’s atmosphere, biosphere, lithosphere and hydrosphere). Explores spatial and temporal variation of environmental processes through the use of hands-on data collection, manipulation and modeling.

**GEOS 119 Geology of Energy Resources** 3c-0l-3cr
Prerequisite: No geoscience majors/minors

Examines the geological environments that create energy resources. Compares patterns of energy development globally and nationally with particular emphasis placed on the development of Pennsylvania’s energy resources. Studies relationships of environmental impacts to current levels of energy use, both in terms of climate and water. Culminates with a look at factors that affect future energy demand in terms of population growth and standard of living.

**GEOS 150 Geology of National Parks** 3c-0l-3cr
Prerequisite: No geoscience majors/minors

Explores geological processes and earth history using the classic rock formations of America’s national parks. Includes national parks such as Arches, Bryce Canyon, Carlsbad Caverns, Grand Canyon, Great Smokies, Mammoth Cave, Shenandoah, Yellowstone, Yosemite, Zion, and others.

**GEOS 151 The Age of Dinosaurs** 3c-0l-3cr
Prerequisite: No geoscience majors/minors

A thorough introduction to dinosaurs and the world they inhabited. Topics include the most current theories regarding dinosaur biology (behavior, metabolism, evolution), ecology (greenhouse climate, associated fauna and flora), and extinction (asteroid impact, volcanism, climate change).

**GEOS 152 Physical Resources of the Earth** 3c-0l-3cr
Prerequisite: No geoscience majors/minors

An introduction to mineral, energy, and water resources of the earth; genesis of ore deposits; exploration, exploitation, and utilization of resources; impact of exploitation of resources on the environment and on humankind.

**GEOS 154 Human Exploration of Space** 3c-0l-3cr
Prerequisite: No geoscience majors/minors

Covers the history, technical considerations, and scientific and social issues of the exploration of the planets and smaller objects of the solar system. Early rocketry, the race to the Moon, and past robotic missions provide
a perspective to consider current and future science missions and human settlement beyond earth. Includes field observations and activities that may occur on evenings and weekends.

**GEOS 155 Geology of Climate Change** 3c-0l-3cr
Examines the geologic factors which control Earth’s climate; how that climate has varied through Earth’s history; how anthropogenic climate change is different from changes previously experienced on Earth; and how anthropogenic climate change is affecting the planet.

**GEOS 156 Geology of Natural Disasters** 3c-0l-3cr
Explores the science behind natural disasters, including earthquakes, landslides, floods and volcanic eruptions. Students will investigate the geologic processes that impact the surface of the Earth and endanger human lives. By understanding the science behind these processes, students will learn to recognize known risk factors, minimize their vulnerability to disaster, and weigh the consequences to society of living in disaster-prone regions.

**GEOS 201 Foundations of Geology** 3c-3l-4cr
**Prerequisite:** Geoscience majors/minors, social studies education majors/minors, anthropology, geography, and regional planning majors, or instructor permission
An introduction to the geological sciences, including the study of the earth’s interior; plate tectonics; minerals and crystallography; igneous, sedimentary, and metamorphic rocks and their cycling; geologic time; crustal deformation; and earthquakes. Laboratory exercises will emphasize hands-on learning of basic geology skills including mineral and rock identification, understanding the geometry of subsurface geologic structures, and topographic and geologic map reading.

**GEOS 202 Quantitative Methods in the Geoscience** 2c-0l-2cr
**Prerequisites:** Geoscience or earth and space science education majors/minors only, or instructor permission; must be taken after or concurrently with GEOS 201
A quantitative introduction to the geological sciences, including the study of the earth’s interior; plate tectonics; minerals and crystallography; igneous, sedimentary, and metamorphic rocks and their cycling; geologic time; crustal deformation; and earthquakes. Introduces students to foundational mathematical skills and techniques used in the geosciences.

**GEOS 203 Surficial Processes** 3c-3l-4cr
**Prerequisite:** Grade of “C” or better in GEOS 201
Introduces students to the geological processes that shape the earth’s surface, from uplift and erosion of mountains to the transport of sediment and subsequent formation of sedimentary rocks. Focuses on the interaction of underlying tectonic forces with the natural cycles of the earth’s atmosphere and hydrosphere and the subsequent evolution of both landscape and surface deposits.

**GEOS 204 Historical Geology** 3c-3l-4cr
**Prerequisite:** Grade of “C” or better in GEOS 201
An introduction to the historical development of geology as a scientific discipline and an overview of the methods used by geologists to reconstruct the Earth’s past history. Studies the rock and fossil record in lecture, lab, and field outings to discover how our planet formed, how plate tectonic activity shaped ocean basins and continents, how geologic processes created economic resources, and how the history of life is recorded by ancient rock deposits. Includes required field trips on weekends. (Offered as GEOS 351 before 2015-16.)

**GEOS 301 Mineralogy** 3c-3l-4cr
**Prerequisite:** Grade of “C” or better in GEOS 201
An introduction to crystallography, crystal chemistry, physical properties, optical properties, and phase equilibria of minerals pertinent to geology and economic resources. Laboratory exercises focus on mineral identification and interpretation as well as analytical techniques such as x-ray diffractometry and optical microscopy

**GEOS 302 Structural Geology** 3c-3l-4cr
**Prerequisites:** Grades of “C” or better in GEOS 201 and 202
A study of the geometry, kinematics, and dynamics of the primary structures of the earth’s crust. Focuses on the geometric relations between geologic contacts and surface topography, the description of primary structures such as foliations, lineations, folds and fractures, the constraints on crustal motions, and the relation between stress and strain. Students are introduced to the tools of rock mechanics and spherical geometry. The laboratory includes extensive work with geologic maps and profiles, the Brunton compass, and orthographic and stereographic projections. Includes field trips that may occur on weekends.

**GEOS 303 Field Geology** 3c-3l-4cr
**Prerequisite:** Grade of “C” or better in GEOS 201
Principles and techniques of field geology with an emphasis on developing field skills using a Brunton compass, topographic maps, Jacobs staff, stereographic projections, field computers, and the global positioning system. Field projects involve techniques of field note taking, measuring and describing stratigraphic sections, bedrock mapping and analysis, environmental assessment, and construction of geologic maps and structure sections. Includes field trips that may occur on weekends.

**GEOS 310 Environmental Geology** 3c-3l-4cr
**Prerequisite:** Grade of “C” or better in GEOS 203
The study of human interactions with the earth from a geological perspective. An emphasis is placed on the scientific concepts necessary to understand these interactions, including groundwater flow, soil formation and destruction, waste disposal, geologic hazards, stream hydrology, climate change, and natural resources. Contemporary environmental issues are explored through primary scientific literature and news media. Includes field trips that may occur on weekends.

**GEOS 311 Geochemistry** 3c-3l-4cr
**Prerequisites:** CHEM 111, MATH 121, grade of “C” or better in GEOS 201
An introduction to low-temperature chemistry of the earth’s surface and near-surface; includes discussions of chemical activity, solution chemistry, organic geochemistry, trace elements, stable and radiogenic isotope geochemistry, and the chemistry of natural waters.

**GEOS 312 Hydrogeology** 3c-3l-4cr
**Prerequisites:** Grades of “C” or better in GEOS 201 and 202; MATH 121 or 125 or instructor permission.
An overview of groundwater geology, including flow equations, aquifer flow equation, aquifer parameter testing, groundwater sampling techniques, and remediation of groundwater pollution. Labs emphasize graphical and analytical solutions as well as computer modeling of groundwater flow systems.

**GEOS 323 Geophysics** 3c-3l-4cr
**Prerequisites:** PHYS 111, MATH 121, grade of “C” or better in GEOS 201
An introduction to physics of the surface and interior of the solid earth, including earthquakes, propagation of earthquake waves, gravity field and interior structure, magnetic field and magnetic reversals, heat flow, geodesy, and tides. Techniques used for applied geophysical surveys are also examined.

**GEOS 324 Geology of Oil and Gas** 3c-3l-4cr
**Prerequisite:** Grade of “C” or better in GEOS 203
An in-depth exploration of the geological processes that create oil and gas resources in sedimentary rocks. Students also learn specific techniques used in the oil and gas industry for locating and extracting oil and gas reserves and study the environmental impacts caused by their development. Students also gain an understanding of the limited nature of fossil fuels.

**GEOS 341 Planetary Geology** 3c-3l-4cr
**Corequisites:** MATH 121, PHYS 111 or instructor permission
Materials, motions, and evolution of the solar system, with an emphasis on observational methods, mechanics, spatial relationships, geology, and origin of the solar system.

**GEOS 342 Stellar Astronomy** 3c-3l-4cr
**Corerequisites:** MATH 121, PHYS 111 or instructor permission
Evolution and nature of objects in the universe, including the Sun, stars, and
galaxies. A study of methods for gathering astronomical data on motion, distance, and composition.

**GEOS 345 Igneous and Metamorphic Petrology** 3c-3l-4cr  
**Prerequisite:** Grade of “C” or better in GEOS 301  
Introduces the origins of metamorphic rocks in the context of plate tectonic activity, emphasizing melting and crystallization processes as well as metamorphic reactions. Laboratory exercises focus on rock identification and interpretation on hand sample and petrographic microscopy. Includes field trips that may occur on weekends.

**GEOS 352 Stratigraphy** 3c-3l-4cr  
**Prerequisite:** Grade of “C” or better in GEOS 203  
An introduction to the concepts and methods applied in defining and establishing the spatial and temporal relationships of stratigraphic units—the material packages of sediment/rock and the intervals of time that are derived from them. Includes field trips that may occur on weekends.

**GEOS 353 Paleontology** 3c-3l-4cr  
**Prerequisite:** Grade of “C” or better in GEOS 201  
An introduction to the study of prehistoric life, the process and products of organic evolution, and the utility of fossils as tools for solving geological and paleobiological problems. Includes field trips that may occur on weekends.

**GEOS 354 Geomorphology** 3c-3l-4cr  
**Prerequisite:** Grade of “C” or better in GEOS 203  
A study of the origin of the earth’s landforms, including relationship of geologic structure to landform types and role of geomorphic processes in landscape development.

**GEOS 355 Sedimentology** 3c-3l-4cr  
**Prerequisite:** Grade of “C” or better in GEOS 301  
A study of sediments and sedimentary rocks with emphasis on reconstruction of their origin, specifically depositional and post-burial history, from properties observed in outcrops, hand-specimens, and thin sections.

**GEOS 356 Coastal Processes and Geology** 3c-3l-4cr  
**Prerequisites:** GEOS 203, geoscience majors/minors, and earth and space science education majors/minors, or instructor permission  
The study of the origin and evolution of coastal environments from a geological perspective. Emphasis is placed on the quantitative investigation of the dominant processes (waves, tides, and currents) that create and modify these environments, as well as the role of human-induced change. Contemporary issues in coastal geology are explored through primary scientific literature, news media, and laboratory exercises. Includes field trips that may occur on weekends.

**GEOS 362 Plate Tectonics** 3c-3l-4cr  
**Prerequisite:** Grade of “C” or better in GEOS 201  
Introduction to formal theory of plate tectonics. Topics include magnetic anomalies, first motion studies, thermal structures of the plates, kinematics, crustal generation, sea floor spreading, collision, and subduction deformation.

**GEOS 363 Volcanology** 3c-3l-4cr  
**Prerequisite:** Grade of “C” or better in GEOS 201  
Introduces volcanoes, volcanic eruption styles, and deposits in subaerial and submarine environments. Students assess risks and hazards associated with living near active volcanoes and discuss the cultural influences of volcanoes around the world throughout human history. Study of different types of volcanic eruptions through historical and pre-historical case studies. Laboratory exercises focus on rock identification and interpretation, fluid dynamics experiments, and learning laboratory and field skills of volcanologists that allow the determination of eruption dynamics.

**GEOS 370 Oceanography** 3c-3l-4cr  
**Prerequisite:** Grade of “C” or better in GEOS 201  
An introduction to physical, chemical, geological, and biological nature of the ocean: bathymetry, submarine geology, and sedimentary deposits. Includes field trip(s) that may occur on weekend(s).

**GEOS 371 Meteorology** 2c-3l-3cr  
**Prerequisite:** Grade of “C” or better in GEOS 201  
An introduction to meteorological sciences; composition and structure of the atmosphere; radiation principles; elementary thermodynamics and heat balance.

**GEOS 404 Newfoundland Field Workshop** var-3cr  
**Prerequisites:** GEOS 403; instructor permission and valid passport required  
A field course designed to utilize the exceptional and diverse geologic features of Newfoundland for instruction of departmental majors and minors in the tectonic analysis utilizing sedimentologic, stratigraphic, and paleontologic observations. (Three weeks, taught in the summer only.)

**GEOS 405 American Southwest Seminar** 1c-0l-1cr  
**Prerequisites:** Grades of “C” or better in GEOS 201 and 202; instructor permission required  
A seminar introduction to the geology of the American Southwest. Includes examination of Colorado Plateau stratigraphy, Basin and Range tectonism, and volcanic events in the eastern Sierra Nevada. Prepares students specifically for GEOS 406.

**GEOS 406 American Southwest Field Workshop** var-3cr  
**Prerequisites:** GEOS 405; instructor permission required  
A field study of the major geologic features and relationships exposed in the American Southwest, including the Colorado Plateau, the Rio Grande Rift, Death Valley, and parts of the eastern Sierra Nevada in California. (Three weeks, taught in the summer only.)

**GEOS 407 Carbonate Geology Seminar** 1c-0l-1cr  
**Prerequisites:** Grades of “C” or better in GEOS 201 and 202; instructor permission required  
A seminar introduction to the geological environment and history of the carbonate rocks and sediments found in Florida. Includes instruction in the techniques of field analysis and geologic interpretation. Prepares students specifically for GEOS 408.

**GEOS 408 Carbonate Geology Field Workshop** var-3cr  
**Prerequisites:** GEOS 407; instructor permission  
Two to three weeks of field study in Florida Keys and at Andros Island, Bahamas. Conducted from base camps in Florida Keys and at Forfar Biological Field Station (Bahamas) and consists of both land and marine studies of the different carbonate environments in the Keys, Florida Bay, and along the Atlantic reef tract. Valid passport and basic swimming skills required.

**GEOS 409 Geology of Shale Gas—Field Workshop** 2c-3l-3cr  
**Prerequisite:** GEOS 119  
Intensive laboratory and field-based investigations of the geology of shale gas energy formation, development and extraction. Explores the geological formation and history of natural gas found in deep shale deposits and investigates technology used to extract these from the subsurface and how economic, environmental, and political factors influence the development of shale gas resources. Includes travel to field-based locations and rig-floor environments.

**GEOS 470 Research Methods in the Geosciences** 2c-0l-2cr  
**Prerequisites:** GEOS 202; 75cr or instructor permission  
For students enrolled in all majors within the Geoscience Department. Students learn the methods of research in the geosciences by working on a project of their choosing. Students define a problem, propose several hypotheses, collect data, and perform a quantitative analysis to test their hypotheses and propose a solution. Final results are submitted in professional manuscript form. As preparation, students examine various geoscience problems and data sets through the semester. Cannot be taken subsequent to GEOS 480.

**GEOS 480 Geoscience Seminar** 2c-0l-2cr  
**Prerequisites:** GEOS 470, senior standing  
For seniors majoring in some aspect of geoscience. The seminar (1) provides an opportunity to prepare, formally present, and defend a scientific paper based either on his/her own research or on a topic chosen with the ap-
proval of instructor and (2) provides opportunity to discuss topics presented by other students, faculty, or guests.

GEOS 481 Special Topics var-1-3cr
Prerequisite: As appropriate to course content
The department’s intention is to use this course to schedule extended field trips and for teaching special courses that utilize the specialties of the Geoscience faculty.

GEOS 482 Independent Study var-1-3cr
Prerequisite: Prior approval through advisor, faculty member, department chair, dean, and Office of the Provost
Independent study provides an opportunity to use library, laboratory, or field research in an area that is of interest under the supervision of a designated faculty member. Approval is based on academic appropriateness and availability of resources.

GEOS 490 Field Studies in Geology var-1-4cr
Prerequisites: GEOS 301; instructor permission
Field-based geologic research in a variety of locations across the United States and the world. Through hands-on application, students learn how to formulate a field hypothesis, use field equipment to collect geological observations and samples, keep a field notebook, and create visual depictions of field data in the form of maps or cross-sections.

GEOS 492 Soils and Soil Geochemistry 2c-3l-3cr
Prerequisite: Grade of “C” or better in GEOS 201
Introduces the ways in which archaeologists and geoscientists define, recognize, examine, and interpret soils in both the field and the laboratory. Examines (1) how the interactions of landform, topography, climate, and biota result in patterns of soil development and the distribution of soils that we observe within the landscape; (2) the significance of soils to other disciplines, including archaeology, Quaternary geology, and geoenvironmental science; and (3) how the physical, chemical, and biological properties of soils are influenced by human activities both past and present. Includes field trips that may occur on weekends. (Offered as GEOS 313 before 2016-17.) (Also offered as ANTH 492; may not be taken for duplicate credit.)

GEOS 493 Geoscience Internship var-1-12cr
Summer or semester work experience with cooperating firms or agencies. May be scheduled only after consultation with advisor and chair. Requirements include up to three on-site consultations, depending on credits and location’s site; completion of up to three oral progress reports; and submission of a detailed work diary. Restricted to junior and senior department majors; only 3cr may be applied toward major.

GERN: Gerontology
Department of Nursing and Allied Health Professions
College of Health and Human Services

GERN 493 Internship 3cr
Prerequisites: Senior standing, all required courses
Supervised experience in public or private agency that serves aging clients.

GRMN: German
Department of Foreign Languages
College of Humanities and Social Sciences

GRMN 101 Elementary German I 4c-0l-4cr
For beginning students. Introduction to the German language emphasizing communication through reading, writing, speaking, and listening. Focus on pronunciation and basic grammatical concepts to enable students to communicate in the present tense in a range of situations. They will be able to negotiate a limited number of personal needs and handle basic social interactions related to their daily lives. They become acquainted with a variety of cultural aspects of German-speaking countries. Attendance is required. May not register for or take a D/F repeat in GRMN 101 when credit has already been received for a higher-numbered German course.

GRMN 102 Elementary German II 4c-0l-4cr
Prerequisite: GRMN 101 or equivalent
A continuation of GRMN 101. Emphasizing communication through reading, writing, speaking, and listening. Focus on pronunciation and expansion of grammatical concepts to enable students to communicate in present, past, and future tenses in a variety of situations. Students will be able to negotiate a limited number of personal needs, handle a range of interactions related to their daily lives, and manage simple social transactions. They expand their cultural knowledge of German-speaking countries. Attendance is required. Liberal Studies credit is given. May not register for or take a D/F repeat in GRMN 102 when credit has already been received for a higher-numbered German course.

GRMN 201 Intermediate German 4c-0l-4cr
Prerequisite: GRMN 102 or equivalent
A continuation of GRMN 102. Emphasizing communication through reading, writing, speaking, and listening. Focus on pronunciation and expansion of grammatical concepts to enable students to communicate in present, past, and future tenses in a variety of situations. Students will be able to negotiate an increasing number of personal needs, handle a range of interactions related to their daily lives, and manage simple social situations and transactions. They expand their cultural knowledge of German-speaking countries. Attendance is required. Liberal Studies credit is given. May not register for or take a D/F repeat in GRMN 201 when credit has already been received for a higher-numbered German course.

GRMN 220 Intermediate German Conversation 3c-0l-3cr
Prerequisite: GRMN 201 or equivalent, or instructor permission
Intensive work on oral communication skills with specific emphasis on spontaneous interpersonal speaking, discourse strategies, vocabulary building, and pronunciation. Required for all minors.

GRMN 221 Conversation III 2c-0l-2cr
Two-hours-weekly conversation practice in small groups emphasizing the use of greetings, idiomatic expressions, and communication skills to improve vocabulary and pronunciation.

GRMN 230 Intermediate German Composition and Grammar 3c-0l-3cr
Prerequisite: GRMN 201 or equivalent
Intensive practice in written expression and communication in German together with a grammar review. Intermediate-level course with the goal of fostering writing in German for a variety of practical purposes. Review and expansion of specific grammar points are integrated into each unit. Taught in German.

GRMN 281 Special Topics var-1-3cr
Prerequisite: As appropriate to course content
Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 281 are offered primarily for lower-level undergraduate students.

GRMN 372 Childhood Enchantment: The Fairy Tale in German Culture and Literature 3c-0l-3cr
Prerequisite: GRMN 201 or instructor permission
Analyzes the role fairy tales have played in German culture and literature over time. Emphasizes the complex reflection of socio-political processes and realities in folk tales and literary fairy tales (Kuermärchen), as well as the use of fairy tale motifs in other literary genres, film, the arts, music, advertising, and everyday life. Topics to be discussed may include, but are not limited to, gender roles, family relationships, the motif of the quest, the depiction of heroes and heroines, the conflict between good and evil, crime and punishment, the idea of justice, altruism versus egotism, the fairy tale and politics, etc. Taught in German.

GRMN 481 Special Topic var-1-3cr
Prerequisite: As appropriate to course content
Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 481 are primarily for upper-level undergraduate students. Designed to meet the special needs of a student group.
GRMN 482 Independent Study
Prerequisite: Prior approval through advisor, faculty member, department chair, dean, and Office of the Provost
Provides an opportunity to engage in an in-depth analysis of some topic dealing with the German language and culture through consultation with a faculty member.

HBUS: Honors Business
Eberly College of Business and Information Technology

HBUS 101 Contemporary Business Issues 3c-0l-3cr
Prerequisite: Admission to College of Business Honors Program
An honors-level course in the Eberly College of Business and Information Technology enables eligible students to participate in advanced study in the freshman year. Provides the foundation of the integrative nature of the college’s majors by including seminar meetings discussing contemporary business issues with local, regional, and national alumni business leaders; research mentoring with college faculty and businesspeople; opportunities to provide service to the college, university, and the community; and the beginning of an electronic portfolio. Serves as the introduction to the college’s honors program that also includes a sophomore cluster, an honors junior block, and an honors senior capstone course.

HIST: History
Department of History
College of Humanities and Social Sciences

HIST 106 Samurai and Gongfu Heroes: Masculinity in East Asia 3c-0l-3cr
Explores what it means to be a man, from the haohan of China to the Men of High Purpose of Japan and beyond. Analyses stories, films, and official histories that have encouraged Chinese and Japanese people to emulate the great heroes of the past and how these people and their stories have been re-used in modern Asia. (Also offered as ASIA 106; may not be taken for duplicate credit.)

HIST 196 Explorations in US History 3c-0l-3cr
Interprets and analyzes the development of US history through a chronological survey of a historical era or a topical theme central to US history. Examines, where appropriate, the intersection of race and ethnicity, gender, and class. Emphasizes the recognition of historical patterns, the interconnectedness of historical events, and the incorporation of various subfields in the discipline of history. Successful completion of HIST 196 fulfills the Liberal Studies History requirement. HIST 197 and 198 also fulfill this requirement, and any of these courses may be substituted for each other and may be used interchangeably for D/F repeats but may not be counted for duplicate credit.

HIST 197 Explorations in European History 3c-0l-3cr
Interprets and analyzes the development of European history through a chronological survey of a historical era or a topical theme central to European history. Examines, where appropriate, the intersection of race and ethnicity, gender, and class. Emphasizes the recognition of historical patterns, the interconnectedness of historical events, and the incorporation of various subfields in the discipline of history. Successful completion of HIST 197 fulfills the Liberal Studies History requirement. HIST 196 and 198 also fulfill this requirement, and any of these courses may be substituted for each other and may be used interchangeably for D/F repeats but may not be counted for duplicate credit.

HIST 198 Explorations in Global History 3c-0l-3cr
Interprets and analyzes the development of global history through a chronological survey of a historical era or a topical theme central to global history. Examines, where appropriate, the intersection of race and ethnicity, gender, and class. Emphasizes the recognition of historical patterns, the interconnectedness of historical events, and the incorporation of various subfields in the discipline of history. Successful completion of HIST 198 fulfills the Liberal Studies History requirement. HIST 196 and 197 also fulfill this requirement, and any of these courses may be substituted for each other and may be used interchangeably for D/F repeats but may not be counted for duplicate credit.

HIST 201 Western Civilization before 1600 3c-0l-3cr
Prerequisite: 3c of college history, or current major in any of the following: history, history/pre-law, middle-level education grades 4-8/social studies specialization, or secondary social studies
A survey course presenting in various forms the origin and development of major political, social, religious, and intellectual institutions in Western civilization to approximately 1600. For history majors or by instructor’s permission.

HIST 202 Western Civilization since 1600 3c-0l-3cr
Prerequisite: 3c of college history, or current major in any of the following: history, history/pre-law, middle-level education grades 4-8/social studies specialization, or secondary social studies
Development of Western civilization from the expansion of Europe to the present, including political, diplomatic, economic, social, and cultural areas. Introduces issues and interpretations encountered in upper-level courses. For history majors or by instructor’s permission.

HIST 204 United States History to 1877 3c-0l-3cr
Prerequisite: 3c of college history, or current major in any of the following: history, history/pre-law, middle-level education grades 4-8/social studies specialization, or secondary social studies
An introduction to United States history from the Colonial period through Reconstruction, covering such main currents as the founding of American society, the American Revolution, the making of the Constitution, the market revolution, westward expansion, slavery, the Civil War, and Reconstruction.

HIST 205 United States History since 1877 3c-0l-3cr
Prerequisite: 3c of college history, or current major in any of the following: history, history/pre-law, middle-level education grades 4-8/social studies specialization, or secondary social studies
An introduction to United States history since 1877 to the present, covering such main currents as industrialization, Progressivism, World War I, the Great Depression and New Deal, World War II and the Cold War, the 1960s, the Vietnam War, and post-Vietnam political, social, and economic developments.

HIST 206 The History of East Asia 3c-0l-3cr
History of China and Japan from ancient times, Buddhism, medieval Japan, Chinese communism, industrialization, and the modern Pacific Rim. Some consideration of peripheral Asia.

HIST 207 The History of the Middle East 3c-0l-3cr
History of the Middle East from the late Byzantine and Sassanid period, Islam, medieval Islamic civilization and the rise of early modern dynasties, European imperialism, the origins of modern nation states, and the contemporary Middle East.

HIST 215 The Researcher as Detective 1c-0l-1cr
Introduces use of evidence in the construction of historical narrative and the standard practices of the historian.

HIST 217 Different Ways of Looking at the Past 1c-0l-1cr
Introduces different theoretical lenses that historians have used for viewing the past. Includes empiricism and structuralism. Provides a brief overview of the different ways that our view of the past has changed over the course of the 20th-century.

HIST 218 Right in Your Own Backyard: How To Do Local History 1c-0l-1cr
Introduces historical methods and best research practices for conducting local history projects.

HIST 219 Historians and the Public: Preserving and Presenting the Past 1c-0l-1cr
Examines the way historians serve as the intermediary between the public and their understanding of the past in a public setting. Explores how history is preserved and presented by historians, from historic sites and museums to virtual exhibits and documentary filmmaking.
HIST 230 Queer Global History 3c-0l-3cr
Analyzes the historical and global understanding of the concept of “queerness.” Emphasizes the historical development of a queer identity and the modern creation or a queer community, focusing on comparing different modern notions of queerness and the LGBTQ+ struggle for equal rights.

HIST 231 History of Jerusalem 3c-0l-3cr
Explores the history of the city of Jerusalem from the ancient world until the present, examining the significance of the city to contemporary conflicts in the Middle East.

HIST 232 Stalin and Hitler and the Terror State 3c-0l-3cr
Explores the historical understanding of Joseph Stalin and Adolph Hitler and the totalitarian states that they created. Emphasizes their influence on domestic and international events from the 1920s through the 1950s.

HIST 240 Zombies: A Cultural History of Death, Disease, and Technology 3c-0l-3cr
Explores the concept of the Zombie throughout history and across cultures, and the way the figure of the Zombie has served as a metaphor for deeper personal and communal fears, such as death, nuclear war, global pandemics, and out of control technology.

HIST 251 United States Military History 3c-0l-3cr
Prerequisite: Not applicable toward the history major
A survey of the history and transformation of the American military from the Colonial period to the present time. American military history is analyzed within the context of the nation’s political, social, economic, and cultural development. Central themes include war making, civil-military relations, and military professionalism.

HIST 295 Introduction to Historical Studies 2c-0l-2cr
Prerequisite: History, history/pre-law, or social studies education majors
First of a two-course sequence. Introduces students to the study of history, analysis of primary and secondary sources, historical interpretation and historical writing. The student is encouraged to become a better critical thinker and historian.

HIST 301 History of Ancient Greece 3c-0l-3cr
Prerequisites: Sophomore standing, 3cr of college history
Analyzes major political, social, and economic developments in ancient Greek civilization from Bronze Age to death of Alexander.

HIST 302 History of Ancient Rome 3c-0l-3cr
Prerequisites: Sophomore standing, 3cr of college history
Traces Roman history from early Republic down to fall of Empire. Roman political theory is particularly emphasized.

HIST 303 Medieval Europe I, 400-1000 3c-0l-3cr
Prerequisites: Sophomore standing, 3cr of college history
History of early Medieval Europe, from decline of Rome to beginnings of High Middle Ages; emphasis on political, social, economic, religious, and intellectual developments.

HIST 304 Medieval Europe II, 1000-1300 3c-0l-3cr
Prerequisites: Sophomore standing, 3cr of college history
History of late Medieval Europe, from High Middle Ages to Renaissance period; emphasis on political, social, economic, religious, and intellectual developments.

HIST 305 Renaissance and Reformation 3c-0l-3cr
Prerequisites: Sophomore standing, 3cr of college history
History of Europe from approximately 1250; rise of commercial city, kings, and pressures on Christian Church to 1600. Some consideration of technology and voyages.

HIST 306 Early Modern Europe 3c-0l-3cr
Prerequisites: Sophomore standing, 3cr of college history
Greatness of France under Louis XIV; Sweden; Thirty Years’ War. Emergence of modern society, French Revolution.

HIST 307 History of Europe: 1815-1914 3c-0l-3cr
Prerequisites: Sophomore standing, 3cr of college history
The study of Europe in 19th century, with emphasis on the emergence of major thought patterns, Romanticism, Nationalism, Socialism, and Positivism.

HIST 310 Making Italy Modern 3c-0l-3cr
Prerequisites: Sophomore standing, 3cr of college history
Surveys the principal themes in the transformation of Italian cultural, social, economic, and political structures since the 19th century. Topics include Italian unification; the growth of national culture; the development of a modern state, economy, and society; Italy’s role in the Mediterranean; Italian emigration throughout the world; the impact of modernity; Fascism and anti-Fascism; and Italy in the post-World War II era.

HIST 311 Rise and Fall of Hitler’s Empire 3c-0l-3cr
Prerequisites: Sophomore standing, 3cr of college history
An in-depth study of Hitler and the Nazi order; offers an analysis of 19th-century origins of Nazi ideology and intensively analyzes domestic and foreign totalitarian policy (1920-1945), including Holocaust, Resistance, and the postwar Nuremberg Trials.

HIST 312 Europe, 1914-1945: The Age of Dictators and Imperiled Democracies 3c-0l-3cr
Prerequisites: Sophomore standing, 3cr of college history
Surveys the principal themes in the transformation of Europe from 1914 to 1945. Topics include World War I and the Paris Peace settlement; developments in conservatism, liberalism, and socialism; colonial empires; the emergence of communism, fascism, and Nazism; artistic, musical, and literary movements between the two World Wars; the Great Depression and responses to it; anti-Semitism and the Shoah; the Spanish Civil War, appeasement, and World War II; and the seeds of decolonization and the Cold War.

HIST 313 Europe Since 1945: Division, Revolution, and Unity 3c-0l-3cr
Prerequisites: Sophomore standing, 3cr of college history
Surveys the principal themes in European history since 1945. Topics include postwar reconstruction, the origins of the Cold War in Europe, the long years of economic growth followed by stagnation, decolonization of the British and French empires, the events of 1968 and their consequences, the experience of communism in the East Bloc, the revolutions of 1989, and progress toward European integration.

HIST 320 History of England to 1688 3c-0l-3cr
Prerequisites: Sophomore standing, 3cr of college history
A survey of the growth of the English nation, with emphasis on political, social, and economic developments leading to 17th-century conflict between Crown and Parliament.

HIST 322 Liberty and Terror: France from the Revolution to Napoleon 3c-0l-3cr
Prerequisites: Sophomore standing, 3cr of college history
Analyzes the period from 1750 to 1815, focusing on the causes and patterns of revolutionary upheaval during the 1790s, the rise to power of Napoleon Bonaparte, the creation of a French empire, and warfare.

HIST 323 Modern France: Renewing an Old Country 3c-0l-3cr
Prerequisites: Sophomore standing, 3cr of college history
A survey of French history from the end of the Napoleonic era to the present. Pays special attention to the revolutionary tradition in politics, changes in the lives of workers and peasants, the French experience in the two world wars, and recent social and political trends.

HIST 326 History of Russia 3c-0l-3cr
Prerequisites: Sophomore standing, 3cr of college history
A general survey of Russian history, culture, and institutions. Special consideration given to the study of historical forces formative of Revolution of 1917.

HIST 327 Soviet Union and Contemporary Russia 3c-0l-3cr
Prerequisites: Sophomore standing, 3cr of college history
Analyzes the period from 1855 to the present, including the attempts at
modernization by Imperial Russia, the creation of the Soviet Union and further modernization, and the collapse of the Soviet Union.

**HIST 329 The History of the Byzantine Empire** 3c-0l-3cr  
**Prerequisites:** Sophomore standing, 3cr of college history  
An introduction to early Byzantine civilization and history, A.D. 400-1300. Traces the transformation of the ancient world and the emergence of a distinctly medieval Byzantine civilization.

**HIST 330 History of the Islamic Civilization** 3c-0l-3cr  
**Prerequisites:** Sophomore standing, 3cr of college history  
An approach to learning about a non-Western culture: Muhammad, Arabs, and Muslims as creators of a great civilization from rise of Islam to 1800; emphasis on cultural institutions of Islam and their interrelationships within Middle East.

**HIST 331 Modern Middle East** 3c-0l-3cr  
**Prerequisites:** Sophomore standing and 3cr of college history  
A survey of changes that have taken place in Middle East and in Islam since 18th century and of contemporary problems in that region.

**HIST 332 History of Early China** 3c-0l-3cr  
**Prerequisites:** Sophomore standing and 3cr of college history  
China from the dawn of time to the Tang Dynasty. Focuses on the creation of the intellectual and political systems that have dominated China and East Asia down to the present. Looks in depth at the origins of Chinese philosophy and the imperial system.

**HIST 334 History of Modern China** 3c-0l-3cr  
**Prerequisites:** Sophomore standing and 3cr of college history  
The history of China from the late Ming to the present. The Late Imperial political, economic, and social systems and the problems they faced in the 19th century. Reforming China from the Self-Strengthening to Mao. Revolutionary society and its discontinuities. The reform era and China today.

**HIST 337 History of Modern Japan** 3c-0l-3cr  
**Prerequisites:** Sophomore standing, 3cr of college history  
The history of Japan from the beginning of the Tokugawa period to the present. Japan’s early modern political, economic, and social systems; its transformation in the Meiji era; and the Japanese people’s struggles and successes in the 20th century.

**HIST 338 The History of Iran** 3c-0l-3cr  
**Prerequisites:** Sophomore standing, 3cr of college history  
Focuses on aspects of Iranian history from the Achaemenid period until the present that are significant for the formation of modern Iranian identity. Uses primary sources, secondary readings, literature, and film to analyze the development of Iranian identity as well as modern perceptions of Iran. Emphasis on ancient Iranian culture and religion, the story of Iranian wars with the Greeks and Romans, how Iran became Muslim, and the development of contemporary Iranian religion and politics.

**HIST 339 Jihad and the Origins of Islamist Movements in the Middle East** 3c-0l-3cr  
**Prerequisites:** Sophomore standing, 3cr of college history  
Discusses the concept of “jihad” in Islamic history: its origins, development, and historical deployment by groups within the Muslim community. Analyzes the history and origins of groups such as al-Qaeda, the Taliban, and ISIS and considers whether these groups are “medieval” or actually modern products of globalization. (Also offered as PLSC 339; may not be taken for duplicate credit.)

**HIST 340 Colonial America** 3c-0l-3cr  
**Prerequisites:** Sophomore standing, 3cr of college history  
A survey of original 13 states from their inception as colonies within the British empire to 1763, the eve of Independence. Attention is given to their political development; economic position within the empire; relations with Indians; and evolution of social, educational, and religious life.

**HIST 341 American Revolution** 3c-0l-3cr  
**Prerequisites:** Sophomore standing, 3cr of college history  
An examination of Whig-Tory participants of American Revolution. Examines events from 1763 to 1783. Changing interpretations of the causes and effects of the revolution are discussed.

**HIST 342 The Early Republic** 3c-0l-3cr  
**Prerequisites:** Sophomore standing, 3cr of college history  
A survey of United States history from 1783 to 1850, with special attention on constitutional, political, economic, and social trends.

**HIST 343 Civil War and Reconstruction** 3c-0l-3cr  
**Prerequisites:** Sophomore standing, 3cr of college history  
The study of the failure of American democracy to cope with issues of mid-19th century, followed by political, economic, military, and social developments during war and reconciliation of North and South.

**HIST 345 America in War and Depression, 1914-1945** 3c-0l-3cr  
**Prerequisites:** Sophomore standing, 3cr of college history  
A study of the social, economic, political, and cultural response to war and depression in America. Topics include the World War I, the 1920s, the Depression, the New Deal, and the World War II.

**HIST 346 Recent United States History** 3c-0l-3cr  
**Prerequisites:** Sophomore standing, 3cr of college history  
Examines the major political, economic, social, and cultural changes in America since 1945, with a focus on their causes, character, and significance; also explores the role of the United States in global relations.

**HIST 348 Top Secret America: The Rise and Reach of the National Security State** 3c-0l-3cr  
**Prerequisites:** Sophomore standing, 3cr of college history  
Focuses on the historical development of the concept of national security in the US and on the intersection of national and broader international security concerns in the Cold War context. Identifies, for the Cold War era and beyond, diplomatic, military, and intelligence capabilities of governments and explores how individuals and groups conceptualized themselves, and their security. Explores one powerful motivator: fear and how it translated into political actions and citizen involvement in Cold War concepts. HIST 348 and PLSC 348 may be substituted interchangeably for D/F repeats, but may not be used for duplicate credit.

**HIST 350 History of Latin America: Colonial Period, 1450-1820** 3c-0l-3cr  
**Prerequisites:** Sophomore standing, 3cr of college history  
A study of life of people, Indian cultures, conquest by Spaniards and Portuguese, government during Colonial Period, and Wars of Independence.

**HIST 351 History of Latin America: National Period, 1820-Present** 3c-0l-3cr  
**Prerequisites:** Sophomore standing, 3cr of college history  
A study of the history of nations that have emerged since independence; emphasis on economic, political, cultural, and social developments of these nations, as well as relationships of these nations to others in the hemisphere.

**HIST 360 History of Pennsylvania** 3c-0l-3cr  
Emphasizes the cultural, economic, political, and social development of Pennsylvania in its various periods from Colonial time to today. Special attention is given to the diversity of Pennsylvania’s people, their institutions, and their problems.

**HIST 362 History of American Diplomacy, 1900-present** 3c-0l-3cr  
**Prerequisites:** Sophomore standing, 3cr of college history  
Treats primarily our 21st-century involvement in world affairs and domestic debate over that involvement. Special emphasis is on the role of interest groups and increasing power of Executive Department over foreign affairs.

**HIST 363 Thought and Culture in Early America** 3c-0l-3cr  
**Prerequisites:** Sophomore standing, 3cr of college history  
Selected topics in early American intellectual and cultural growth, with emphasis on Puritanism, Enlightenment, cultural nationalism, and Romantic movement.

**HIST 365 History of Black America Since Emancipation** 3c-0l-3cr  
**Prerequisites:** Sophomore standing, 3cr of college history  
Examines the history of black America from slavery and the Civil War...
through the 21st-century. Investigates and analyzes the struggles and successes of black Americans and immigrants of African ancestry as fought to defend their place in American history and shape the future of the nation. Links black history to broader issues of race, gender, and citizenship. Explores crucial ideologies, key leaders, major organizations, and leading movements and individuals, as well as average individuals seeking to make their voices heard in American history.

HIST 369 Women in America  3c-0l-3cr
Prerequisites: Sophomore standing, 3cr of college history
A study of the activities of women from the colonial era to the modern era—evaluating cultural, societal, religious, economic, and political frameworks. Reviews women’s involvement in movements for feminism, social reform, unionism, and the abolition of slavery.

HIST 372 History of the Early American Working Class  3c-0l-3cr
Prerequisites: Sophomore standing, 3cr of college history
Description and analysis of the nature and significance of the working class of the United States in the 18th and 19th centuries. The work settings and communities of workers are examined, as well as unions such as the National Labor Union and the Knights of Labor.

HIST 373 History of the Modern American Working Class  3c-0l-3cr
Prerequisites: Sophomore standing, 3cr of college history
Description and analysis of the nature and significance of the working class of the United States in the 21st century. Work settings and strikes are examined and analyzed, as well as unions such as the United Mine Workers and the United Auto Workers and labor leaders including Samuel Gompers, John L. Lewis, and George Meany.

HIST 374 Blind Pigs and Brothels: A History of Crime and Vice in America  3c-0l-3cr
Prerequisites: Sophomore standing, 3cr of college history
Examines the origins, development and growth of various types of crime and vice in America, from the Colonial era to the recent past. Explores the relationships between individuals, cultures, communities, institutions, government, and law enforcement.

HIST 379 History in the Digital Age  3c-0l-3cr
Prerequisites: History and social studies education/history majors; not applicable toward Social Studies Education requirements; sophomore standing; 3cr of college history
Examines the changes that digital technologies are bringing to the field of history and how historians research, write, present, and teach the past. Students investigate the development of this new media and study the state of digital historical work by scholars, teachers, archivists, museum curators, and popular historians. As they examine this work, students also explore the philosophical and ethical issues raised by efforts to put history online. Finally, students are given an introduction to some of the programs used by historians and the public to create digital history.

HIST 385 People in Nature: An Introduction to Environmental History  3c-0l-3cr
Prerequisites: Sophomore standing, 3cr of college history
Examines the ways in which human perceptions of nature, human manipulations of nature, and natural constraints on human activities have interacted and changed over time. Drawing material from early modern and modern Europe as well as the United States, this course treats the effects of climate change, industrialization, agricultural crisis, deforestation, and modern conservation and environmentalism through rotating case studies. Examines the following comprehensive questions with each case study: How have climate, soil, biota, and other natural factors shaped human ways of making a living from the land? How have they influenced culture more generally? How has human action, in various times and places, modified natural ecosystems? How do we describe the resulting “hybrid” landscapes? How have different cultures described and analyzed nature?

HIST 391 Film as History  3c-0l-3cr
Prerequisites: Sophomore standing, 3cr of college history
Particularly concerned with probing the relationship between cinema and society. History of film is explored and student is given some background in film interpretation and cinematography, the western, science fiction, police films, and great foreign and American detective films.

HIST 394 Introduction to Classical Archaeology  3c-0l-3cr
Prerequisites: Sophomore standing, 3cr of college history
An introduction to the archaeology of the Classical world. A variety of sites, artifacts, and monuments are examined with an emphasis on archaeological problems such as the recording and interpretation of archaeological evidence, the relation between historical and archaeological events, and the use and misuse of ancient texts. Attention is given to developments in theory and methodology and to the history of the discipline of Classical Archaeology from antiquity to the present day.

HIST 395 Introduction to Historical Methods  3c-0l-3cr
Prerequisite: HIST 295
A colloquium focusing on historiography and historical methods in the context of a specific topic. Students are expected to improve their research and writing skills and their understanding of historiography and methods of historical research. (writing-intensive course)

HIST 420 Introduction to Public History  3c-0l-3cr
Prerequisites: Sophomore standing, 3cr of college history
Introduces students to a wide range of activities in which public historians engage. Considers broader conceptual theoretical and practical issues associated with historic preservation, museum studies, oral history, the management of archival and manuscript collections, as well as a variety of other public history activities. Also considers broader conceptual issues associated with the field of public history. None of the Public History courses (HIST 420, 421, 422, or 423) may be counted towards the BSEd—Social Studies Education/History Track. Only one may be counted towards the BA—History or the BA—History/Pre-law Track.

HIST 421 Archival Studies  3c-0l-3cr
Prerequisites: Sophomore standing, 3cr of college history
An introduction to the archival profession and its practices. None of the Public History courses (HIST 420, 421, 422, or 423) may be counted towards the BSEd—Social Studies Education/History Track. Only one may be counted towards the BA—History or the BA—History/Pre-law Track.

HIST 422 History Museums and Historic Sites: Theory and Practice  3c-0l-3cr
Prerequisites: Sophomore standing, 3cr of college history
An introduction to the history of museums and historic sites. Focuses on the relationship between history and public audiences, on the theory and practice of telling stories through museums, historic sites, and living history. Introduces the tools that public historians use to interpret the past, explores key dilemmas in public interpretation and community collaboration, and examines contemporary models on how to reach audiences in ways that make history resonant and meaningful to them. None of the Public History courses (HIST 420, 421, 422, or 423) may be counted towards the BSEd—Social Studies Education/History Track. Only one may be counted towards the BA—History or the BA—History/Pre-law Track.

HIST 423 Oral History Practice  3c-0l-3cr
Prerequisites: Sophomore standing, 3cr of college history
Introduces the practices of collecting and preserving oral histories, as well as the research and public use of oral histories. None of the Public History courses (HIST 420, 421, 422, or 423) may be counted towards the BSEd—Social Studies Education/History Track. Only one may be counted towards the BA—History or the BA—History/Pre-law Track.

HIST 433 China 1300-1800: The Late Imperial Age  3c-0l-3cr
Prerequisites: Sophomore standing, 3cr of college history
Examines the cultural and social history of Late Imperial China. Includes elite attempts at creating an orderly Confucian society and also how less powerful groups altered or challenged this vision. Discusses the role of commercialization and commercial culture and China as an Early Modern society. (Titled Bandits and Poets: The Cultural and Social History of Late Imperial China before 2016-17.)

HIST 434 Modern China 1800-present  3c-0l-3cr
Prerequisites: Sophomore standing, 3 cr of college history
China’s modern transformation from the crisis of the Late Qing through the various revolutionary governments of the 20th century to the rise of China as a world power. Looks at both Chinese elites’ quest for wealth and power and the impact this quest has had on ordinary people. (Titled History of Modern China: From the Opium Wars to the Present before 2016-17.)

HIST 436 Japan 1500-1850: Early Modern Japan 3c-0l-3cr
Prerequisites: Sophomore standing, 3 cr of college history
Examines the cultural and social history of Early Modern Japan, including both Sengoku and the Tokugawa. This includes elite attempts at creating a stratified social order and how less powerful groups altered or challenged this vision. Discusses the role of commercialization and cultural exchange Japan as an Early Modern society. (Titled Geisha and Samurai: The Cultural and Social History of Early Modern Japan before 2016-17.)

HIST 437 Modern Japan 1850-Present 3c-0l-3cr
Prerequisites: Sophomore standing, 3 cr of college history
Japan’s modern transformation from the age of the samurai to the present. Looks at both the Japanese elites’ quest for wealth and power in the late 19th and the 20th centuries and the impact this quest has had on ordinary people. (Titled The History of Modern Japan: From the Floating World to the Present before 2016-17.)

HIST 475 History of American Constitutionalism 3c-0l-3cr
Prerequisites: Sophomore standing and 3cr college history
Examines the major themes and problems concerning the constitutional history of the United States from the American Revolution to the end of the Cold War. Among other subjects, explores why and how the United States Constitution was written; how the nature and scope of the powers of Congress, presidency, and judiciary were transformed; how the relationship between the federal government and the states evolved; and how such constitutional amendments as the first and 14th redefined the power of governments, as well as the rights of citizens.

HIST 480 Senior Seminar 3c-0l-3cr
A regimen of research resulting in a written paper. Work on a program selected by the instructor. For history majors or by instructor’s permission.

HIST 481 Special Studies in History var-1-3cr
Prerequisites: As appropriate to course content, sophomore standing, 3 cr of college history
Offered each semester in interest areas that are not part of the regular program. Some examples of courses of this type are the Victorian Age, the History of Love, World War II, the Great Depression, the Adams Chronicles, and the History of New York City. May schedule as many of these courses as desired, but two per semester is the usual limit.

HIST 482 Independent Study var-3-6cr
Prerequisites: Prior approval through advisor, faculty member, department chair, dean, and Office of the Provost with 12 cr in history; a 3.0 GPA in history classes; permission of a faculty member. Approval is based on academic appropriateness and availability of resources. Involves directed reading or research for qualified students. Experimental projects and personalized learning are encouraged.

HIST 483 Honors Thesis var-3-6cr
Prerequisites: History, history/pre-law, or social studies education/history major; 3.25 cumulative GPA; 3.5 GPA in history courses, departmental permission. Approval is based on academic appropriateness and availability of resources. A two-semester sequence of research and writing, culminating in an honors thesis. Honors theses are completed individually under the direction of a department professor who specializes in the student’s area of interest and are approved by a thesis committee comprising the director and two others, one of whom may come from outside the History Department. May be taken twice for a total of 6 cr. Completion of 6 cr of HIST 483 substitutes for HIST 480.

HIST 487 Honors Colloquium in History 3c-0l-3cr
Colloquium emphasizing reading, discussion, and writing on an announced historical topic or theme that varies from semester to semester according to the expertise of the faculty member teaching the course. Open to all Cook Honors College students who have completed HNRC 201 and, with instructor permission, to junior and senior history, history/pre-law, or social studies education majors who have at least a 3.5 GPA in History classes.

HIST 493 Internship var-3-12cr
With departmental approval, students are attached to local or national government or private agencies doing directive, bibliographical, archival, or museum work. Advising professor meets with intern regularly and determines what papers or reports are required.

HIST 495 Topics in United States History 3c-0l-3cr
Prerequisites: HIST 395 and junior/senior history, history/pre-law, or social studies education majors or by instructor permission
An upper-division course emphasizing lecture, reading, discussion, and writing on specialized topics relating to historical issues of the United States of America. The theme varies from semester to semester according to the expertise of the faculty member teaching the course. May be repeated. (Offered as HIST 401 before 2014-2015.)

HIST 496 Topics in European History 3c-0l-3cr
Prerequisites: HIST 395 and junior/senior history, history/pre-law, or social studies education majors or by instructor permission
An upper-division course emphasizing lecture, reading, discussion, and writing on specialized topics relating to European historical issues. The theme varies from semester to semester according to the expertise of the faculty member teaching the course. May be repeated. (Offered as HIST 402 before 2014-15.)

HIST 497 Topics in Non-Western History 3c-0l-3cr
Prerequisites: HIST 395 and junior/senior history, history/pre-law, or social studies education majors or by instructor permission
An upper-division course emphasizing lecture, reading, discussion, and writing on specialized topics relating to non-Western historical issues. The theme varies from semester to semester according to the expertise of the faculty member teaching the course. May be repeated. (Offered as HIST 403 before 2014-15.)

HIST 498 Topics in Comparative History 3c-0l-3cr
Prerequisites: HIST 395 and junior/senior history, history/pre-law, or social studies education majors or by instructor permission
An upper-division course emphasizing lecture, reading, discussion, and writing on specialized topics relating to comparative historical issues. The theme varies from semester to semester according to the expertise of the faculty member teaching the course. May be repeated. (Offered as HIST 404 before 2014-15.)

HIST 499 Topics in Public History 3c-0l-3cr
Prerequisites: HIST 420
Capstone for students in the public history concentration. Draws on program experience to conduct a major public history project, short research paper, and professional portfolio.

HNRC: Honors College
Cook Honors College
Academic Affairs Division

HNRC 101 Honors Core I 5c-0l-5cr
Prerequisites: Freshman status, admission to the Honors College
This first in a series of three required and interrelated courses introduces Honors College students to major works of literature and art; to major ideas in history, philosophy, religious studies, literature, and the fine arts; and to critical thinking skills used in reading, writing, and discussion in an integrated, synthetic, and interactive pedagogical environment. While materials from various periods and disciplines are part of HNRC 101, each instructor has attempted to incorporate some works from a common century to provide students with a common ground for exploring the core questions.

HNRC 102 Honors Core II 5c-0l-5cr
Prerequisites: HNRC 101, freshman status, admission to the Honors College
The second in a series of three required and interrelated courses. Continues the emphases of HNRC 101: (a) introduction to major works of literature and fine arts; (b) introduction to major ideas in history, philosophy, religious studies; and (c) focus on critical thinking skills used in reading, writing, and discussion in an interrelated, synthetic, and interactive pedagogical environment. Although materials come from various periods and disciplines, each instructor has incorporated works from a common century to provide a common ground for exploring core questions. Building on their experiences in HNRC 101, students become more critical and analytical in their reading and response. Further, the ability to synthesize is emphasized based on their previous readings and learning experiences.

HNRC 201 Honors Core III 4c-0l-4cr
Prerequisites: Sophomore status, admission to the Honors College, and successful completion of HNRC 101 and 102 if admitted to the Honors College as a first-year student. Prerequisites for students admitted to the Honors College as sophomores are ENGL 101 and at least one Liberal Studies course in the humanities or fine arts.
Completes the introduction of Honors College students to major works of literature and art; major ideas in history, philosophy, religious studies, literature, and the fine arts; and critical thinking skills used in reading, writing, and discussion in an integrated and interactive pedagogical environment.

HNRC 202 Honors Core: Sciences 4c-0l-4cr
Prerequisites: HNRC 101, 102, sophomore status, admission to the Honors College
Concerned with science as a way of knowing about the world. Focuses on what scientists have learned about what it means to be human, how humans have been shaped by and, in turn, have influenced their environment, and what use might be made of scientific knowledge. These themes are explored from disciplines in the natural and social sciences.

HNRC 499 Honors Senior Synthesis var-3-6cr
Prerequisites: 3.25 GPA, Honors College good standing or instructor permission, 73 or more credits earned
Concluding cross-disciplinary Honors College experience, focused on the question “what are the obligations of the educated citizen?” Helps students understand and handle complex intellectual issues from multiple perspectives. A selection of topics is announced and described in the undergraduate course schedule. Substitutes for LBST 499.

HOSP 101 Introduction to the Hospitality Industry 1c-0l-1cr
Examines the development and current status of the hospitality industry. Profiles major hotel, restaurant, and related area employers. Discusses career opportunities. Features guest speakers from various hospitality industry segments.

HOSP 130 Food Service Sanitation 1c-0l-1cr
Introduces concepts and issues pertaining to sanitation and security management in the food service segment of the hospitality industry. Examines causes and prevention of food-borne illness, Hazard Analysis Critical Control Point (HACCP) food production methods, and current government regulations. (Titled Hospitality Sanitation and Security before 2015-16.)

HOSP 150 Principles of Hospitality Management 3c-0l-3cr
Introduces classic management theory and responsibilities, with an emphasis on hospitality industry applications.

HOSP 212 Club Operations Management 3c-0l-3cr
Provides an in-depth understanding of the unique aspects of private club management. The differences as compared to public golf courses, public restaurants, hotel operations, equity (member-owned), and non-equity (corporate-owned) club settings are explored.

HOSP 220 Food Service Operations 3c-0l-3cr
Introduces the operational concepts of food service operations in commercial kitchen facilities. Includes planning, preparation, and service of quantity food production. Emphasizes the integration of sanitation, menu planning, cost controls, and application of computer software.

HOSP 235 Tourism Management 3c-0l-3cr
Introduces concepts pertaining to international and domestic tourism. Examines the economic, social, and cultural aspects of tourism, as well as how destinations are marketed. (Offered as HOSP 115 before 2017-18.)

HOSP 245 Multicultural Management in Hospitality 3c-0l-3cr
Prerequisite: Sophomore standing
Examines the effects of international migration and changing roles of minorities within the global and domestic hospitality industry. Addresses the cultural factors affecting workplace productivity and relationships.

HOSP 250 Resort Management 3c-0l-3cr
Identifies characteristics of hospitality industry resort operations. Includes resort history, resort planning and development, food and beverage operations, lodging operations, recreational activities, and other relevant operational characteristics.

HOSP 256 Human Resources in the Hospitality Industry 3c-0l-3cr
Prerequisite: ENGL 101
Examines human resource management in the hospitality industry. Topics include cultural diversity, legal requirements, job analysis, recruitment and selection, training and development, performance appraisal, compensation, and benefits administration.

HOSP 259 Hospitality Purchasing 3c-0l-3cr
Includes sources, standards, grades, methods of purchase, and storage of various foods, beverages, and fixtures. Emphasizes the development of purchasing policies and specifications.

HOSP 260 Hotel Operations Management 3c-0l-3cr
Examines the development and classification of lodging operations. Hotel operating departments, department personnel, operational procedures, and current lodging trends and companies are discussed.

HOSP 265 Hospitality Cost Management 3c-0l-3cr
Examines the cost management of hospitality operations, including those in the areas of food, beverage, labor, and material, and compares those costs to industry norms. Students analyze income statements and balance sheets.

HOSP 280 Special Event Management 3c-0l-3cr
Introduces the principles of special event management and current practices and developments within the event-management industry. Discusses event management responsibilities from the initial planning stages through delivery.

HOSP 281 Special Topics var-1-3cr
Prerequisite: As appropriate to course content
Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 281 are offered primarily for lower-level undergraduate students.

HOSP 285 Service, Menu Planning, and Facilities Design 3c-0l-3cr
Focuses on food and beverage service characteristics, menu planning and design, and facilities design within various operational concepts in the hospitality industry.

HOSP 299 Cooperative Education (First Experience) 0cr
Prerequisites: Completion of 30cr, 2.0 GPA
A semester-long program that combines classroom theory with practical application through job-related experiences. Student required to complete two alternating experiences; only one may be a summer experience.

HOSP 300 Critiquing Commercial Restaurants 1c-0l-1cr
A opportunity for the student of hospitality management to evaluate operational characteristics of commercial restaurants from the perspective of a dining patron. Students, as members of dining teams, dine in a variety of restaurant concepts and evaluate the business operation on a battery of performance criteria, including site appearance, menu diversity, service competence, product quality, and sanitation. Students incur out-of-pocket dining expenses.

HOSP 310 Professional Development in the Hospitality Industry 3c-0l-3cr
Prerequisite: HOSP 150
An opportunity to identify and design industry-specific job search strategies, techniques, and skills including résumé and cover letter writing, interviewing, portfolio development, and strategies to attain career success within the hospitality industry.

HOSP 320 Hospitality Marketing 3c-0l-3cr
Prerequisite: HOSP 150
Students gain an understanding of the principles and concepts of marketing as they apply to hospitality management. Analyzes consumer behavior related to the hospitality industry. Students learn to make effective marketing decisions as they apply to customer satisfaction.

HOSP 325 Hotel Sales 3c-0l-3cr
Prerequisite: HOSP 260
Identifies the functions and activities of the sales department within a hotel property. Provides a thorough review of the organizational structure of a typical hotel sales department and the documentation used. Covers identification and approaches to securing typical hotel market segments.

HOSP 326 Theme Park and Attraction Management 3c-0l-3cr
Prerequisite: HOSP 235
Provides a comprehensive view and an in-depth understanding about the various operational areas and managerial issues in theme parks and attractions.

HOSP 330 Applications of Food Production and Service 0c-10l-4cr
Prerequisite: HOSP 220, or FDNT 150/151, and Proof of ServSafe Training for the hospitality management student in advanced fundamentals of technique, timing, and management skills through laboratory experiences, as well as the operation of the Allenwood Restaurant facility.

HOSP 335 Legal Issues in Hospitality 3c-0l-3cr
Prerequisite: HOSP 256
Examines the concepts and issues pertaining to hotel and restaurant law, government regulations, and their impact on the hospitality industry. A special emphasis is on innkeeper-guest relationship, employee relations, food laws and liability, liquor law and liability, and guest rights.

HOSP 341 Professional Wedding Planning and Consulting 3c-0l-3cr
Prerequisite: HOSP 280
Focuses on the application of hospitality management practices to the planning and implementation of successful wedding events. Emphasizes: an analysis of the factors involved in the social, political, economic, cultural, religious and historical influences on wedding planning decision-making and business strategies, negotiation of contracts, selection of vendors, and preparation of comprehensive wedding event proposals. The unique application to the wedding planning and consultation in the hospitality industry.

HOSP 343 Fund-Raising for Special Events 3c-0l-3cr
Prerequisite: HOSP 280
Relevant management tools, techniques, and strategies used for acquiring event revenue through fundraising and special event management are explored. Evolving legislation affecting sponsor and donor relationships is examined. The contemporary concept of sponsorship is benchmarked against a historical review to frame an understanding of how sponsor and organizational needs change.

HOSP 346 Catering for Special Events 3c-0l-3cr
Prerequisite: HOSP 280
A practical understanding of the management tasks of a caterer and his/her relationship to the special events industry.

HOSP 347 Meeting and Convention Management 3c-0l-3cr
Prerequisite: HOSP 280
Analyzes the management and economic impact of the convention, meeting, and exposition industry. Examines the development of strategies used to manage conferences, meetings and trade shows to include the methodologies unique to each property and group served.

HOSP 350 Introduction to the Casino Industry 3c-0l-3cr
Prerequisite: HOSP 235
Examines the global casino industry from a historical perspective and includes legal, social, and economic issues. Also reviews the various games played in casinos, current trends, and popular global casino destinations.

HOSP 352 Destination Management 3c-0l-3cr
Prerequisite: HOSP 235
Provides an overview of the key challenges and constraints facing convention and visitors bureaus and how destination management can be planned, implemented and evaluated to achieve successful destination competitiveness.

HOSP 358 Restaurant Equipment and Design 3c-0l-3cr
Prerequisite: HOSP 280
Examines types and uses of food service production and service equipment with emphasis on incorporation into an effective facilities design. Field trips permit investigation of a variety of unit designs.

HOSP 367 Festival Management 3c-0l-3cr
Prerequisite: HOSP 280
Examines the international, regional, and local perspective of festivals and festival-event management. Examines and evaluates management, marketing, financial, and operational considerations together with strategies necessary to ensure viable festivals. (Offered as HOSP 275 before 2017-18.)

HOSP 372 Housekeeping and Facilities Management 3c-0l-3cr
Prerequisite: HOSP 260
Provides an overview of hotel housekeeping and facilities management. Special attention placed on proper staffing and scheduling techniques, housekeeping cost control, facilities management tools and techniques, sustainability management, and facility design.

HOSP 382 International Tourism 3c-0l-3cr
Prerequisite: HOSP 235
Examines the current status of hospitality and tourism industries at the global level. Analyzes different cultures, geographical features, and social, economic, and environmental issues in different countries to develop a comprehensive travel plan that meets the needs of today’s international tourist.

HOSP 393 Exploratory Hospitality Field Experience var-3-12cr
Prerequisites: HOSP 310, 2.0 overall GPA, 45 earned credits in A.S. or 60 earned credits in B.S., and 12 earned HOSP credits
Provides practical experience in the hospitality industry with approved internship sites. Students should select a segment of the hospitality industry relating to their interested concentration area to obtain experience.

HOSP 400 Hotel Revenue Management 3c-0l-3cr
Prerequisite: HOSP 260
Examines evolving trends of revenue management, best approaches to building profitable pricing strategies, and data analytics.

HOSP 402 Beverage Management 3c-0l-3cr
Prerequisite: Verifiable proof of 21 years of age or permission
Examines the principles, processes, and theories of beverage service. Analysis of methods of alcoholic beverage production and examination of categories of spirits, malt beverages, and wine, as well as legal concerns of service. Development and marketing of beverage operations are discussed. Includes voluntary tasting and evaluation of alcoholic beverage products.

HOSP 403 Wine and Wine Service 3c-0l-3cr
Prerequisite: All students must be 21 years of age or older
A study of the wine-growing regions, production, processing, and distribution of domestic and international wines. Topics include types of wine grapes, varieties of wine, proper storage procedures, the techniques of proper wine service, and responsible alcohol service.

HOSP 404 Brew Pub and Brewery Operations 3c-0l-3cr
Prerequisite: Verifiable proof of 21 years of age or older
Addresses the art of brewing beer, beer styles, brewing equipment requirements, responsible alcohol service, beer and food pairing, sales, and marketing. Students visit local breweries and brew pubs. Students are required to attend three daylong field trips.

HOSP 408 Hospitality Strategic Management 3c-0l-3cr
Examines characteristics of managing human resources, capital, materials, equipment, products, and markets as they pertain to hospitality contract operations. (Titled Institutions Management before 2015-16.)

HOSP 411 Contemporary Issues in Hospitality 3c-0l-3cr
Prerequisites: ENGL 101
Discussion of contemporary issues within the hospitality industry. Students write a series of opinion/reaction papers to presented discussion topics.

HOSP 413 Restaurant Food Production and Service 0c-10l-4cr
Prerequisites: HOSP 330
Emphasizes restaurant front and back-of-the-house operations management. Examines researching, planning, preparing and present theme-oriented meal showcasing selected domestic and international cuisine in the Allenwood Restaurant. Focuses on operations of employees and managers within the department’s food and beverage operation.

HOSP 433 Educational Study Tour var-2-6cr
A comprehensive program of directed activities permits firsthand experiences in the historical and cultural aspects of the hospitality industry worldwide. Visits to renowned operations are included in the tour.

HOSP 450 Training, Development, and Supervision in Hospitality Management 3c-0l-3cr
Prerequisite: Instructor permission
Applied course in which students identify effective practices and examine current issues related to training and development within the hospitality industry.

HOSP 460 Labor and Employee Relations in the Hospitality Industry 3c-0l-3cr
Prerequisite: Instructor permission
Explores the history of the labor movement and the development of employee relations in the hospitality industry examining the major industry segments including lodging, restaurants, casinos, clubs, and related businesses. Students engage in a research project with the intention of presentation and/or publication submission.

HOSP 470 Hospitality Business Model 3c-0l-3cr
Prerequisites: Senior status and instructor permission
Provides the opportunity to integrate and apply hospitality operations management concepts into the development of a working hospitality business model.

HOSP 481 Special Topics var-3cr
Prerequisite: As appropriate to course content
Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 481 are primarily for upper-level undergraduate students.

HOSP 482 Independent Study in Hospitality Management var-1-6cr
Prerequisite: Prior approval through advisor, faculty member, department chair, dean, and Office of the Provost
Students with interest in independent study of a topic not offered in the curriculum may propose a plan of study in conjunction with a faculty member. Approval is based on academic appropriateness and availability of resources. Must apply a semester in advance and have 60cr earned.

HOSP 494 Internship var-3-12cr
Prerequisite: HOSP 393, senior status, 2.0 overall GPA
Provides practical experience in the hospitality industry with approved internship sites. May be scheduled only after consultation with the department internship coordinator. Requirements include rotating through appropriate industry departments, specific to their career interests that give students a broad view of the various management systems in the organization and the completion of the final portfolio. See internship coordinator for more information.

Note: Kitchen food production uniforms are required for all lab courses in which food is prepared. Students must meet the professional dress requirements of the department.

IFMG: Information Management
Department of Information Systems and Decision Sciences
Eberly College of Business and Information Technology

Note: Except for accounting, business education, and nonbusiness majors who have met the required prerequisites, students scheduling 300 and 400 courses are expected to have achieved junior standing as described in the Eberly College of Business and Information Technology Academic Policies.

IFMG 101 Computer Literacy 3c-0l-3cr
An introductory course providing a fundamental understanding of computers. Familiarizes students with the interaction of computer hardware and software. Emphasizes the application of microcomputers, the use of productivity software (word processing, spreadsheet management, file and database management, presentation graphics, web browsers, search strategies, and e-mail), and the social and ethical aspects of the impact of computers on society. (Does not count toward computer science major.)

Note: cross-listed as COSC 101. Any of these courses may be substituted for each other and may be used interchangeably for D/F repeats but may not be counted for duplicate credit.

IFMG 110 Business Spreadsheet Computing 3c-0l-3cr
Introduces the fundamentals of the use of spreadsheet technology in the business environment. Familiarizes the students to the different formats and setups for business data. Illustrates various uses of spreadsheet formulas and functions in the business environment. Explains the application of charts and graphs for data analysis and also for collecting and sharing data. Demonstrates the use of spreadsheet tools in the analysis of research data.

IFMG 210 Introduction to Front-End Business Applications 3c-0l-3cr
Prerequisites: IFMG/COSC 101 or IFMG 110
An introduction to systems and development concepts, information technology, and front-end business application software. Explains how information is used in organizations and how MIS enables improvement in quality, timeliness, and competitive advantage. Students learn how to design and construct a front-end business application using a programming language.

IFMG 219 Computer Operating Systems Principles 3c-0l-3cr
Prerequisite: IFMG/COSC 101 or IFMG 110 or permission of instructor
Introduces conceptual foundations and practical experiences of working with computer operating systems in the information technology (IT) field. Covers wide range of topics to include storage devices, network performance, group policy, active directory setting, and different ways of troubleshooting operating system functionalities and performance. Examines the difference between open source versus propriety operating systems. Applies scripting languages commands to perform tasks automation within operating systems.

IFMG 230 Introduction to Back-End Business Applications 3c-0l-3cr
Prerequisites: IFMG/COSC 101 or IFMG 110
Introduces the back-end business programming language as it applies to business organizations and their applications. Structured back-end business concepts and methods are taught as the student learns how to solve busi-
ness problems using computers. Involves using files, reports, and tables to produce a variety of outputs utilized in operating and managing business activities.

**IFMG 250 Business Systems Technology** 3c-0l-3cr
**Prerequisite:** COSC/IFMG 101 or IFMG 110

Presents a functional review of computing equipment and the organization of components and devices into architectural configurations. Also teaches the principles of system software and builds an understanding of combinations of hardware and software within architectural designs.

**IFMG 254 Computer Technology Virtualization** 3c-0l-3cr
**Prerequisite:** IFMG 250

Introduces virtualization technology in the computing environment through the study of various related tools. Highlights key issues related to creating and using the virtual environment infrastructure. Presents alternatives for incorporating virtualization solutions at organizations. Uses technological case studies and practical applications. Prepares students to propose virtualization solutions for enterprise computing environments.

**IFMG 300 Management Information Systems: Theory and Practice** 3c-0l-3cr
**Prerequisite:** IFMG/COSC 101, or IFMG 110

Includes basic MIS concepts, fundamentals, and practices. Broad areas of coverage are principles, the computer as a problem-solving tool, computer-based information systems (CBIS), organizational information systems, and information systems management.

**IFMG 305 Micro Database Systems** 3c-0l-3cr
**Prerequisite:** COSC/IFMG 101

The fundamentals of database management, including different database models and database design issues, are examined. Emphasizes the use of various tools of relational database software, including report generators, screen builders, and query facilities. Design techniques and software tools are used in creating a database application. Intended as an elective for business students who are not majoring in management information systems (MIS). MIS majors may not count this course toward their graduation requirements.

**IFMG 352 LAN Design and Installation** 3c-0l-3cr
**Prerequisite:** BTST 273 or IFMG 250 or any computer science course numbered 300 or higher

A study of fundamental local area networking concepts. A detailed study of the basics of local area network (LAN) technology. A comparative study of commercially available LAN systems and products. Features a hands-on laboratory implementation of a LAN. Cross-listed as COSC 352. Either course may be substituted for the other for D/F repeats but may not be taken for duplicate credit.

**IFMG 360 Information Storage and Management** 3c-0l-3cr
**Prerequisite:** IFMG 352

Provides the knowledge for understanding the storage infrastructure required to store this information in personal, enterprise, and cloud computing settings. Focuses on the different components of storage infrastructure and how to successfully manage it. Examines basic and advanced concepts of storage technology to enable evaluation and design of storage architectures with features to meet a variety of technical and business needs. Considers disaster recovery and business continuity solutions such as backups, replication, and archiving which is related to the broader field of information assurance.

**IFMG 390 Database Theory and Practice** 3c-0l-3cr
**Prerequisite:** IFMG 210 or 230 or COSC 220

Reviews database design, data model methodologies, physical data structure, and database development and implementation. Introduces the remote data service, transaction server, and database administration. Emphasizes the practical approach in accessing the database using Internet technology.

**IFMG 414 Internet of Things** 3c-0l-3cr
**Prerequisites:** IFMG 352 and IFMG 210 or 230

Introduces the world of the Internet of Things (IoT) including conceptual foundations and practical applications. Presents the theoretical concepts and the hands on knowledge on creating and managing IoT applications through assigned readings, prototyping, simulation, and mock-up exercises. Classifies business models applicable to IoT. Examines the ethical standards pertinent to the field of IoT.

**IFMG 431 Python Programming** 3c-0l-3cr
**Prerequisites:** COSC/IFMG 101, or IFMG 110 or permission of instructor

Builds expertise in a high-level programming language known for its readability and support for multiple programming styles, and, due to its many libraries, a large range of applications. Introduces concepts to apply programming syntax and problem solving to business cases. Covers topics that includes data types, programming constructs, and different libraries.

**IFMG 455 Business Data Mining** 3c-0l-3cr
**Prerequisite:** IFMG 390

Introduces the strategies, technologies, and techniques associated with this growing MIS specialty area. Consists of three main parts: (1) the basic methodology for designing, using, and managing a data warehouse, (2) integrating different sources of data using non-relational technologies, and (3) using different data mining techniques to derive information from data for strategic and long-term business decision-making. (Titled Data Warehousing and Mining before 2016-17.)

**IFMG 456 Business Intelligence, Informatics, and Big Data Analysis** 3c-0l-3cr
**Prerequisites:** QBUS 215, instructor permission (determination of appropriate background done by the instructor)

Primarily concerned with business analysis dealing with quantitative approaches, including those involving big data, for decision making for Business Intelligence and Informatics (BII). Big Data (BD) is the term for the collection of data sets that are so large and complex that it becomes difficult to process this data by using on-hand database management tools or traditional data processing applications alone.

**IFMG 460 Analysis and Logical Design** 3c-0l-3cr
**Prerequisites:** (IFMG 210 or 230) and IFMG 352, 390

Involves teaching the tools and techniques required for the analysis and design of a business system. Along with in-class discussions of the principles and techniques for analyzing, designing, and constructing the system, the students also formulate system teams in order to analyze the problems of an existing business information system, to design an improved system, and to control the implementation of the new system.

**IFMG 468 Information Technology (IT) Security** 3c-0l-3cr
**Prerequisite:** IFMG 352

Introduces the principles and practices of security in the information technology (IT) field of study. Covers topics widely discussed in the IT security field to include security governance, strategic planning, policies and procedures, infrastructure, security management models, contingency plans and other related topics. Elaborates on the legal and ethical issues facing IT security in practice.

**IFMG 471 Data Center and Cloud Computing** 3c-0l-3cr
**Prerequisite:** IFMG 254, 360

Introduces the building and managing of data centers as a cloud on the network. Focuses on the fundamentals regarding data center system configuration, networking, storage, and application. Examines different kinds of cloud service and delivery models. Discusses the management of data center security.

**IFMG 475 Project Management and Implementation** 3c-0l-3cr
**Prerequisite:** IFMG 460

Introduces the demands made on the project manager and the nature of the manager’s interaction with the rest of the parent organization in development of a business information system. Studies the difficult problems associated with conducting a project using people and organizations that represent different cultures and politics and that may be separated by considerable distances. Also covers how to implement and carry out the development of the project using several information systems development methodologies.
IFMG 481 Special Topics  var-1-3cr
Prerequisite: As appropriate to course content
Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 481 are primarily for upper-level undergraduate students.

IFMG 482 Independent Study  var-1-3cr
Prerequisite: Prior approval through advisor, faculty member, department chair, dean, and Office of the Provost
Individual research and analysis of contemporary problems and issues in a concentrated area of study under the guidance of a senior faculty member. Approval based on academic appropriateness and availability of resources.

IFMG 493 Internship in MIS  var-3-12cr
Prerequisites: IFMG 352, 390, consent of department chair
Positions with participating business, industry, or governmental organizations provide experience in systems analysis. Note: Can be taken as a 3cr major-area elective requirement.

Department of Human Development, Fashion, and Interior Design
College of Health and Human Services

INDS 105 Introduction to Interior Design  3c-0l-3cr
Presents an overview of the interior design profession. Emphasizes the
College of Health and Human Services

INDS 110 Color and Light  3c-0l-3cr
Focusses on color and lighting fundamentals applicable to the environmental
design of commercial and residential spaces. Includes general color and lighting terminology, theory of color visibility and perception, and how color and light work together to create functional, aesthetic, and sustainable interior environments.

INDS 118 Interior Design Graphics  1c-3l-3cr
Introduces two- and three-dimensional traditional graphic skills including basic sketching, drafting, and perspective drawing as applicable to the responsibilities of interior designers. Emphasizes acceptable drafting standards, graphic layout, and visual organization through projects.

INDS 201 Human Factors in Interior Design  3c-0l-3cr
Examines the manner in which humans, including special populations, and the built environment interface within various cultural settings. Focuses on relevant building codes as they impact the health and safety of the individual. Emphasis placed on Universal Design concepts and accessible code compliance.

INDS 218 Computer Technology for Interior Design  1c-3l-3cr
Introduces basic computer-aided drafting and design (CADD) for designers; emphasizes CADD theory and the value of the computer as a problem solving, design tool.

INDS 219 Kitchen and Bath Design  1c-3l-3cr
Prerequisite: Junior standing
Explores many facets of the kitchen- and bath-design industry. Analyzes kitchen and bathroom spaces according to the National Kitchen and Bath Association (NKBA) standards. Utilizes current design software. (Offered as INDS 319 before 2017-18.)

INDS 230 Presentation for Interior Design  1c-3l-3cr
Prerequisite: INDS 118
Introduces visualization approaches used for professional presentations of concepts. As a project-based course, the focus is on both two- and three-dimensional drawings and the use of color to create depth and enhance the quality of both traditional and digital drawings used to present interior design solutions.

INDS 240 Three-Dimensional Design for Interior Design  1c-3l-3cr
Prerequisite: INDS 118
An introduction to three-dimensional design thinking and presentation. Exploratory exercises strengthen three-dimensional conceptual skills of interior space. Technical studies investigate presentation techniques, model-making, spatial theory analysis, and vocabulary.

INDS 313 Building Systems I: Materials and Finishes  3c-0l-3cr
Prerequisite: Junior standing
Introduces the basic methods of structural and non-structural construction including ceilings, floors, walls, doors, and windows relative to interior space planning. Focuses on the materials and finishes used to complete the interior space, as well as those used on furniture, fixtures, and equipment. Examines manufacturing techniques, application, specification guidelines, estimating, and installation methods. Considers relevant codes, environmental issues, and impact on the responsibilities and decision making of interior designers.

INDS 315 Residential Design Studio  1c-3l-3cr
Prerequisite: INDS 218
Applies interior design space planning and design problem-solving processes to residential design and emphasizes digital and graphic communication and presentation of those solutions.

INDS 323 Building Systems II: Mechanicals  3c-0l-3cr
Prerequisite: INDS 313
Provides a broad overview of the various architectural building systems (mechanical, lighting, electrical, plumbing, acoustic, thermal, communications, security, and conveyance) as they affect the responsibilities and decision making of interior designers. Addresses relevant building and fire codes, vocabulary, and environmental concerns.

INDS 370 History of Interior Design and Architecture I  3c-0l-3cr
Prerequisite: INDS 370
Chronological study from ancient times to the mid-19th century of the dominant influences and characteristics of historical interiors, furniture, and ornamental design. Emphasis placed on stylistic detail and its relationship to social, economic, political, religious, and aesthetic influences and to the contemporary scene.

INDS 380 History of Interior Design and Architecture II  3c-0l-3cr
Prerequisite: INDS 370
Chronological study from mid-19th century to the present of the dominant influences and characteristics of interiors, furniture, and ornamental design. Emphasis placed on stylistic detail and its relationship to social, economic, political, religious, and aesthetic influences and to the contemporary usage.

INDS 405 Interior Design Professional Practice  3c-0l-3cr
Prerequisite: Junior standing
Planning, business organization, management, contracts, procedures, and ethics for the professional interior designer.

INDS 460 Portfolio  1c-2l-3cr
Prerequisite: Senior standing
Focuses on professionalism in the preparation of an interior design portfolio. Concentrates on traditional portfolio composition with an emphasis on the ability to transition to digital portfolio as necessary.

INDS 464 Commercial Design Studio I  1c-3l-3cr
Prerequisite: INDS 319
Applies interior design space planning and design problem-solving processes to nonresidential design and links goals in interior design and facility management.

INDS 465 Commercial Design Studio II  1c-3l-3cr
Prerequisite: INDS 464
A studio, project-based course, ascertaining the process to be followed in developing large-scale nonresidential interior design schemes of more than 10,000 square feet.

INDS 470 Interior Design Capstone  3c-0l-3cr
Prerequisite: Senior Standing
Examines design issues in interior design research with faculty approval. Research is used in the development of a design program which informs a solution that focuses on the adaptive reuse of an existing building. Incorpor-
rates experience and knowledge gained from courses throughout the interior design curriculum. Culminates in a presentation of research findings and design solution.

**INDS 482 Independent Study**  var-1-3cr  
**Prerequisite:** Prior approval through advisor, faculty member, department chair, dean, and Office of the Provost  
Students with interest in independent study of a topic not offered in the curriculum may propose a plan of study in conjunction with a faculty member. Approval is based on academic appropriateness and availability of resources.

**JAPN:** Japanese  
**Department of Foreign Languages**  
**College of Humanities and Social Sciences**

**JAPN 101 Elementary Japanese I**  4c-0l-4cr  
For beginning students. Introduces the Japanese language, with attention focused on three modes of communication: interpretive listening and reading, interpersonal speaking and writing, and presentations speaking and writing. Students learn pronunciation, fundamental grammatical patterns, and how to write hiragana, katakana, and basic kanji. Students learn to converse and ask questions in simple present and past time and become acquainted with aspects of Japanese culture and society. May not register for or take a D/F repeat in JAPN 101 when credit has already been received for a higher-numbered Japanese course.

**JAPN 102 Elementary Japanese II**  4c-0l-4cr  
**Prerequisite:** JAPN 101 or equivalent  
A continuation of JAPN 101. Focusing on communication through listening, speaking, reading, and writing. Students continue to learn to identify and write basic kanji characters. Builds on the three modes of communication—interpretive, interpersonal, and presentational—to build proficiency in using the Japanese language in real-life situations. Also imparts knowledge of Japanese culture and society. May not register for or take a D/F repeat in JAPN 102 when credit has already been received for a higher-numbered Japanese course.

**JAPN 201 Intermediate Japanese**  4c-0l-4cr  
**Prerequisite:** JAPN 102 or equivalent  
A continuation of JAPN 102. Focusing on communication through listening, speaking, reading, and writing so that students can function in everyday situations. Students continue to learn to identify and write intermediate kanji characters. Also imparts knowledge of Japanese culture and society. Liberal Studies credit is given. May not register for or take a D/F repeat in JAPN 201 when credit has already been received for a higher-numbered Japanese course.

**JRNL:** Journalism and Public Relations  
**Department of Journalism and Public Relations**  
**College of Humanities and Social Sciences**

**JRNL 102 Basic Journalistic Skills**  3c-0l-3cr  
Required for journalism and public relations majors and minors. Emphasizes grammar, punctuation, spelling, *AP Stylebook*, copyediting, headlines, and accuracy.

**JRNL 105 Journalism and the Mass Media**  3c-0l-3cr  
A critical examination of the roles-goals of the mass media (newspapers, magazines, radio and television, Internet and other online services) as they affect the American society socially, politically, culturally, and economically.

**JRNL 120 Journalistic Techniques for Professional Writing**  3c-0l-3cr  
**Prerequisites:** ENGL 101, nonmajors/minors  
Emphasizes intelligent use of writing ability in a journalistic style and understanding of the why of journalism and mass media. Practices and improves writing skills.

**JRNL 126 Introduction to Public Relations**  3c-0l-3cr  
Introduces students to the principles, practices, programs, and possibilities in the various areas of public relations.

**JRNL 215 Media Convergence in Journalism**  3c-0l-3cr  
Explores the digitization of journalism, public relations, and its many forms. Students learn how to digitize and work with media including the capture, editing, and distribution of new media, as well as the history and economics of digital media.

**JRNL 220 Writing for Media**  3c-0l-3cr  
**Prerequisites:** JRNL 102 with a grade of “C” or better, journalism and public relations majors only  
A course in journalistic style for students who plan to become professional writers. Teaches the basic journalistic formats and strategies used in print media—such as the summary lead, the delayed lead, and the conventional news-story format—and in digital and online media, such as writing for blogs and writing in chunks. Throughout, emphasizes economy, clarity, and the development of voice for a given medium.

**JRNL 223 Photojournalism**  3c-0l-3cr  
**Prerequisite:** JRNL 105 or COMM 101 or instructor permission  
An introduction to still photography for news media. Includes preparation of a portfolio and learning of specialized processing techniques for high-speed work.

**JRNL 243 History of the American Press**  3c-0l-3cr  
**Prerequisite:** JRNL 105 or COMM 101  
Traces the development of the American press from its Colonial roots. Emphasizes the role of the press in political and social development.

**JRNL 250 Women and the Press**  3c-0l-3cr  
**Prerequisites:** ENGL 101  
Explores the role of women in American journalism. Includes study of lives/careers of women journalists and their specific contributions to the profession. Emphasizes evolution of equal opportunity for women and other minorities in the American press. Attention to the changing definition of news as influenced by the inclusion of women and minorities in editorial roles.

**JRNL 261 Introduction to the Magazine Industry**  3c-0l-3cr  
**Prerequisite:** Sophomore standing or instructor permission  
Introduces the magazine industry, how it is managed, how it functions, its strategies, and its roles and goals in society.

**JRNL 281 Special Topics**  var-1-3cr  
**Prerequisite:** As appropriate to course content  
Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 281 are offered primarily for lower-level undergraduate students.

**JRNL 310 Writing for Online Media**  3c-0l-3cr  
**Prerequisite:** JRNL 120 or 220 or instructor permission  
Teaches techniques to help students develop reporting, writing, and editing skills to communicate effectively in an online media environment. Focuses on the continuum of the online news cycle, nonlinear nature, and interactive elements of the online platform and fundamental differences and similarities between online and traditional media, including ethical and legal uses.

**JRNL 321 Feature Writing**  3c-0l-3cr  
**Prerequisites:** JRNL 102, 220  
For the student who might work in journalism or who might wish to write on a part-time or freelance basis.

**JRNL 325 Public Relations Campaigns**  3c-0l-3cr  
**Prerequisites:** JRNL 126, 220  
An advanced public relations course that teaches students to plan a comprehensive public relations campaign from start to finish, following the Research, Plan, Execute, Evaluate Model. Students outline plans for contacting media outlets and creating and maintaining social media communities. They create slogans and advertisements consistent with branding.

**JRNL 327 Layout, Design, and Production**  3c-0l-3cr  
Teaches basic techniques and theories of layout, design, and production,
including typography, copy fitting, photos/art cropping and scaling, and steps in design process. Includes desktop publishing in the design of ads, newspapers, newsletters, brochures, and magazines.

**JRNL 328 News Reporting** 3c-0l-3cr  
**Prerequisites:** Grades of “C” or better in JRNL 102, 105, and 220; majors only  
Includes instruction in writing the news story, preparing copy, interviewing, covering special events, and similar reporting activities.

**JRNL 337 Editing** 3c-0l-3cr  
**Prerequisite:** JRNL 120 or 220  
Stresses basic practices such as copyediting and headline writing while also focusing on guidelines for improving clarity, transition, spelling, and punctuation of copy. Students use wire service stylebook extensively.

**JRNL 344 Issues and Problems** 3c-0l-3cr  
**Prerequisite:** JRNL 105 or COMM 101  
Examines critical case histories of ethical and professional situations and circumstances in the mass communication industry in a lecture and discussion format.

**JRNL 345 Sports Journalism** 3c-0l-3cr  
**Prerequisite:** JRNL 220  
Emphasizes skills for covering, writing, and editing of sports and introduces specific practices in newspaper, radio-TV, and sports information work.

**JRNL 347 Journalism Law and Ethics** 3c-0l-3cr  
**Prerequisites:** JRNL 105 or COMM 101, permission  
Introduces students to the laws that govern the mass media in America, notably libel, privacy, and free press/fair trial and their impact on First Amendment rights of a free press. Also focuses on media ethics and its application in journalism.

**JRNL 348 Opinion Writing** 3c-0l-3cr  
**Prerequisite:** Junior/senior standing  
Emphasizes the writing of vigorous but thoughtful and fair editorials. Study of contemporary practice and policy on letters to the editor, columnists, cartoons, the op-ed page.

**JRNL 361 Presentation Making** 3c-0l-3cr  
Emphasizes methods and skills used to make effective oral presentations, including principles of organization and research, creating focuses messages, language choices and delivery techniques, such as team oral presentations and platform presentations. Addresses supporting materials and the integration of technology with oral communication to deliver presentations appropriate to audiences across various disciplines.

**JRNL 375 World News Coverage** 3c-0l-3cr  
**Prerequisites:** Sophomore standing, instructor permission  
Challenges students to compare and contrast the coverage of international news sources from around the world and how they impact people’s awareness, attitudes, and behavior in a multiculturally differentiated world. Emphasis is placed on interpreting comparative coverage of events among the developing world and the Western-dominated international news media sources and understanding the geopolitics of world news. Students critique not only current international news but, more important, how it is reported. The goal is to foster a critical and analytical attitude toward news to gain a broad-based, balanced, global, and multicultural awareness of the human subjects of international news.

**JRNL 400 Professional Preparation and Portfolio** 3c-0l-3cr  
**Prerequisites:** JRNL 328  
Prepares majors for the professional world by exploring short- and long-term career goals, creating materials for self-marketing, and managing the personal and behavioral transition from college to the workplace in newspapers, magazines, public relations, and visual journalism.

**JRNL 425 Entertainment PR** 3c-0l-3cr  
**Prerequisites:** JRNL 126, 220  
An advanced public relations course that explores image building, image repair, and personal public relations as they relate to the entertainment industry. Students critically examine the entertainment field—to include sports, tourism, music, theatre, movies—through a public relations lens.

**JRNL 427 Publications** 3c-0l-3cr  
**Prerequisite:** JRNL 327 or instructor permission  
Advanced techniques and theories of publications design, including the legibility principles of typography, the psychological impact of color and paper, and designing online publications, such as newspapers, newsletters, and magazines. Also teaches principles and concepts of publications management, including coping with deadline pressures, the creative disposition, and the marketing of publications. The class produces a total publication.

**JRNL 430 Public Opinion and the News Media** 3c-0l-3cr  
**Prerequisite:** Junior standing  
Deals with understanding and measuring public opinion. Emphasizes critically analyzing the historical origins and the dynamics of public opinion in the policymaking process as well as the role of the news media in public opinion. Students then measure people’s thinking on any given issue or issues.

**JRNL 450 Advertising Writing** 3c-0l-3cr  
**Prerequisites:** JRNL 220, instructor permission  
A basic course in the preparation of advertising copy and continuity for all media. A combination of lecture and laboratory course. Enrollment is limited to upperclass majors.

**JRNL 466 Community Journalism** 3c-0l-3cr  
**Prerequisites:** Junior standing, permission  
Emphasizes practical knowledge and skills in identifying, covering, and writing professionally about community issues and events, including local government, public affairs, the courts, and breaking news. Students also learn how to interview community leaders and use a variety of sources to access relevant information.

**JRNL 481 Special Topics** var-1-3cr  
**Prerequisite:** As appropriate to course content  
Topics vary from semester to semester, covering a number of journalism specialties. From time to time they are converted to permanent course numbers. Special topics numbered 481 are offered primarily for upper-level undergraduate students.

**JRNL 482 Independent Study** var-1-6cr  
**Prerequisite:** Prior approval through advisor, faculty member, department chair, dean, and Office of the Provost  
Opportunities for independent study that go beyond the usual classroom activities. Approval based on academic appropriateness and availability of resources; enrollment is limited to 15 upperclass majors per semester.

**JRNL 483 Honors Thesis** 3c-0l-3cr  
**Prerequisites:** Students must be a journalism and public relations major, hold a 3.25 cumulative GPA and 3.5 GPA in the major, and obtain departmental permission. All required courses in the major must be completed before applying for this course. Approval is based on academic appropriateness and availability of resources. One semester of research and writing will culminate in an honors thesis. Honors theses are approved by the department and completed under the direction of a department professor who specializes in the students’ area of interest.

**JRNL 490 Public Relations Writing** 3c-0l-3cr  
**Prerequisites:** JRNL 126, 220  
A public relations writing class that includes assignments such as releases, features, newsletters, reports, biographies, rewrites, hometown stories, copyediting, interviewing, research, and special projects.

**JRNL 492 Problem Solving in Public Relations** 3c-0l-3cr  
**Prerequisite:** JRNL 126  
Introduces techniques for analyzing and tracking information flow in organizations. Introduces creative problem-solving techniques that are standard practice in corporate research groups.
Other 143 courses also fulfill this requirement, and any of these courses may be substituted for each other and may be used interchangeably for D/F repeats but may not be counted for duplicate credit.

KHSS 142 Foundations of Health, Physical Education, and Sport 3c-0l-3cr
Prerequisite: Health and physical education, physical education and sport, athletic training majors
Historical, philosophical, and psychosocial foundations of health and physical education are introduced. Specific emphasis is given to scientific theories and principles in such areas as health promotion and behavioral change, exercise physiology, motor development, kinesiology, and motor learning.

KHSS 143 Contemporary Women's Wellness 3c-0l-3cr
Explores issues relating to the physical, emotional, and social aspects of special significance to women's health across the life span. Within the context of contemporary lifestyle and cultural influences, relevant health information affecting women of all ages, races, and ethnicities is presented. Current trends in the prevention and control of chronic diseases and health disorders as well as practical applications of information and resources to help each student develop a personal wellness plan and the knowledge to become a woman's health advocate are emphasized. Successful completion fulfills the Liberal Studies Dimensions of Wellness requirements. Other 143 courses also fulfill this requirement, and any of these courses may be substituted for each other and may be used interchangeably for D/F repeats but may not be counted for duplicate credit.

KHSS 143 Physical Well-Being 3c-0l-3cr
An overview of personal health and wellness. Emphasis is given to physical dimension in the attainment of well-being. Topical areas include, but are not limited to, exercise and fitness, healthy eating and weight management, substance use and abuse, disease prevention, and sexuality. Also covers stress management and emotional wellness. Guides in the development of an individualized wellness plan to improve overall physical well-being. Successful completion fulfills the Liberal Studies Dimensions of Wellness requirement. Other 143 courses also fulfill this requirement, and any of these courses may be substituted for each other and may be used interchangeably for D/F repeats but may not be counted for duplicate credit.

KHSS 143 Wellness through Strength Training 3c-0l-3cr
Promotes the attainment of personal well-being through the use of a comprehensive strength training program. Students will focus on the attainment of improved wellness by creating and participating in an exercise regime that focuses on muscular fitness, flexibility, and body composition. The exercise program will utilize a variety of resistive regimes including kettlebells, dumbbell circuits, and plyometrics. Students will evaluate their current level of fitness then participate in a physical activity self-improvement program. Meets Dimensions of Wellness for Liberal Studies requirement. Other 143 courses will also fulfill this requirement, and any of these courses may be substituted for each other and may be used interchangeably for D/F repeats but may not be counted for duplicate credit.

KHSS 146 Foundations of Exercise Science 1c-0l-1cr
Examines the historical development of the exercise science field. Focuses on the importance of professionalism, certifications, and credentialing to be successful in the field. Reviews a variety of sub-disciplines, research, and current career opportunities in the field.

KHSS 162 Scuba Diving 0c-2l-1cr
Teaches necessary skills and proper use of equipment for underwater swimming. Tanks, regulators, weights, and special equipment furnished. Student must purchase a mask, fins, and snorkel (approximately $15). Includes theory as well as practical work.

KHSS 175 Prevention and Care of Injuries to the Physically Active 2c-0l-2cr
Prerequisite: Health and physical education, physical education and sport, athletic coaching certificate students
Presents general information related to the prevention, recognition, and care of both acute and chronic injuries common to participants of physical activity/fitness and athletics. Includes prevention techniques, the classification and staging of injury conditions, and basic evaluation techniques, as well as emergency management and follow-up care procedures.

KHSS 185 Introduction to Athletic Training 3c-0l-3cr
Addresses the historical development of athletic training and the scope of present programs. Introduces the domains and competencies of the athletic training profession.

KHSS 209 Motor Behavior 3c-0l-3cr
Prerequisite: Must be a major enrolled in Kinesiology, Health, and Sport Science Department or instructor permission
Studies the process of human motor behavior across the life span, specifically examining how development of mental and motor abilities affects human movement. Students are required to have appropriate child background clearances.

KHSS 213 Recreational Sports and Lifetime Activities 3c-1l-3cr
Prerequisites: EDSP 102, KHSS 135
Provides exposure to contemporary recreational sports and lifetime physical activities. Includes an overview of all aspects for multiple physical activities, including the history, equipment, fundamental skills and assessment, rules, strategy, and etiquette.

KHSS 214 Teaching Health Fitness and Gymnastics 1c-2l-1cr
Prerequisite: KHSS 209
Provides the health and physical educator with an overview of the fundamentals and techniques of instructing personal fitness and gymnastics. Includes opportunities for skill development, analysis, and strategies for incorporating fitness and gymnastics into the physical education curriculum.

KHSS 215 Teaching Rhythmic Activities and Dance 1c-2l-1cr
Prerequisite: KHSS 209
An aesthetic and kinesthetic movement experience that prepares the student to be a teacher of basic movement in a variety of situations. Includes creative movement, rhythms, and square, folk, and contemporary dance.

KHSS 216 Instruction of Fundamental Movement Skills 3c-1l-3cr
Prerequisites: EDSP 102, KHSS 209
An introduction to instructional methods of fundamental movement categories such as motor skills, manipulative, body management, rhythmic movement, and game skills. Emphasis is on program standards, objectives, and assessments for ages 6-12. An overview of characteristics of children and appropriate activities for this age group. Includes opportunities to improve personal skills, develop units, and teach peers and school-age children. (Titled Teaching Elementary Physical Education before 2015-16.)

KHSS 217 Teaching Middle School Physical Education 2c-2l-2cr
Prerequisites: EDSP 102, KHSS 142
An introduction to instructional methods in physical education with an emphasis on program standards, objectives, and assessments for sixth through eighth grades. An overview of characteristics of middle school children and appropriate activities for this age group. Includes opportunities to improve personal skills, develop units, and teach peers and school-age children.

KHSS 218 Instruction of Tactical Skills and Fitness Concepts 3c-1l-3cr
Prerequisites: EDSP 102, KHSS 216
An introduction to instructional methods in strategic game skills used in many sports and activities with an emphasis on program standards, objectives, and assessments for ages 12-18. Strategies and techniques of instructing personal fitness for adolescents is also covered. An overview of characteristics of adolescents and appropriate activities for this age group. Includes opportunities to improve personal skills, develop units, and teach adolescents ages 12-18. (Titled Teaching Secondary Physical Education before 2015-16.)

**KHSS 221 Human Structure and Function** 3c-0l-3cr
Anatomical organization of the human body, surveyed in sufficient depth to prepare students for physiology, biomechanics, and adaptive physical education.

**KHSS 225 Social Issues in Sport** 3c-0l-3cr
Sport is a topic that permeates virtually all aspects of society. Investigates sport from historical, philosophical, and social perspectives. Various social theories are used to examine the interaction of sport and society through exploration of issues related to business, deviance, disability, gender, media, social class, politics, and race as they pertain to sport.

**KHSS 242 Emergency Health Care** 1c-2l-1cr
**Prerequisites:** Admission to Teacher Education Program, junior standing
American Red Cross Standard, Advanced, and Instructor’s certification and Multimedia Instructor’s certification awarded upon successful completion.

**KHSS 251 Foundations of Safety and Emergency Health Care** 3c-0l-3cr
Focuses on accident prevention, injury control, and first responder skills. Emphasizes identification of causes of accidents, recommended countermeasures, and mitigation. American Heart Association Basic Life Support Health Care Provider card issued.

**KHSS 252 Introduction to the Driving Task** 2c-2l-3cr
Provides an in-depth treatment of operating a motor vehicle competently in all major variations and under most conditions encountered in traffic. A competent operator is one who performs the total driving task knowledgeably and skillfully and demonstrates full understanding and application of identification, prediction, decision, and execution process.

**KHSS 256 Applied Human Structure and Conditioning** 3c-0l-3cr
**Prerequisite:** Physical education and sport/sport administration major
The emphasis is on developing an anatomical and physiological knowledge base as it applies to exercise, conditioning, and training of the physically active. Specific body systems presented include skeletal, muscular, cardiorespiratory, and nervous. Components of each system are addressed as they pertain to exercise and training concepts, such as speed, strength, muscular and cardiovascular endurance, flexibility, aerobic capacity, power, and other physiological factors related to performance and physical activity.

**KHSS 261 Water Safety Instructor** 1c-2l-1cr
**Prerequisites:** Basic swimming skills
Students learn to teach children and adults basic swimming and water safety skills. Emphasis placed on proper body mechanics and teaching progressions. Students have opportunity to earn American Red Cross Water Safety Instructor certification upon successful completion of requirements.

**KHSS 263 Aquatics** 0c-2l-1cr
Basic performance techniques in swimming strokes presented with special emphasis on teaching methodology, aquatic sports and games, water safety, skin diving, springboard diving, and other aquatic activities.

**KHSS 280 Aquatic Management and Operation** 3c-0l-3cr
Prepares the aquatic professional for management and operation of various aquatic facilities and venues. Includes topics on facility design and renovation, staff recruitment and management, risk management and facility safety concepts, legal aspects of aquatics, programming a profitable aquatic facility, and facility inspections. Offers nationally recognized certifications as part of the content delivery (Additional Fees May Apply).

**KHSS 281 Special Topics** var-1-3cr

**Prerequisite:** As appropriate to course content
Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 281 are offered primarily for lower-level undergraduate students.

**KHSS 285 Group/Individual Exercise Leadership** 1c-2l-3cr
**Prerequisites:** Physical education and sport/exercise science majors, KHSS 221 with a grade of “C” or better, or BIOL 150 with a grade C or better
Provides theoretical knowledge of leadership skills necessary to design, implement, and evaluate safe and effective exercise programs in group and individual settings. An emphasis is placed on group exercise leadership and fitness instruction. Students are also introduced to the management and administration of such programs. Observations within the field are required, as well as opportunities to apply introductory concepts of exercise training through practical application.

**KHSS 286 Personal Training Practicum** 2c-1l-3cr
**Prerequisite:** KHSS 221 or BIOL 150
Provides theoretical knowledge of leadership skills necessary to design, implement, and evaluate safe and effective personal training programs. Requires networking within the field as well as opportunities to apply introductory concepts of exercise training and business development through practical application.

**KHSS 292 Introduction to Sport Management** 3c-0l-3cr
Introduces theories and practices in the field of sport management. Emphasizes management principles, leadership competencies, ethical principles, and governance in the sport industry. An introduction to sport marketing, sport finance, and sport law is provided.

**KHSS 315 Biomechanics** 3c-0l-3cr
**Prerequisite:** A grade of “C” or better in KHSS 221 or a grade of “C” or better in BIOL 150
A study of the relationship between mechanical and physical principles and human movement.

**KHSS 316 Instruction of Child Health Concepts** 3c-0l-3cr
**Prerequisites:** EDSP 102, KHSS 142
Introduces the theories of instruction and methods for teaching health education to elementary school-aged children. Identifies developmentally appropriate teaching methods and activities, reviews and assesses current health curriculum, and demonstrates the use of technology in the instructional setting. Provides opportunities for observation, lesson planning, and teaching of health education to children. (Titled Teaching Elementary Health Education before 2015-16.)

**KHSS 318 Preprofessional Experience I** 3c-0l-3cr
**Prerequisites:** KHSS 209, 216, health and physical education majors only
Students assist a university faculty member teach in several instructional settings, including elementary school physical education program or community-based wellness programs. Students have the opportunity to apply pedagogical theory and concepts related to various professional areas. Emphasis is on planning, developing, implementing, and assessing educational experiences.

**KHSS 319 Field Practicum I** 3c-0l-3cr
**Prerequisite:** Sophomore status
An initial experience in the professional work setting. Combines classroom theory with practical application through job-related experience to build on professional knowledge and skills. (Titled Preprofessional Experience II before 2016-17.)

**KHSS 320 Managing Facilities and Events in Sport** 3c-0l-3cr
Investigates the management functions necessary to operate a variety of sport facilities. Emphasizes liability risk reduction, staffing, design and renovation, maintenance, and amenities pertinent to sport facilities. Strategies for managing a sporting event are presented and practiced.

**KHSS 325 School and Community Health** 3c-0l-3cr
Introduces the role of school and community in protecting and promoting...
the health of its members. Topics include historical development of the concepts of health and health education, identification of national and community goals to reduce risk of disease and enhance health status, and the responsibilities of both school and community toward achieving these goals.

**KHSS 330 Assessment in Physical Education**

*0c-2l-1cr*

**Prerequisite:** Health and physical education major

Provides preservice physical education teachers with an understanding of assessment strategies and techniques commonly used in physical education. Provides the opportunity to administer different motor skill and physical fitness assessments and to utilize computer applications associated with these assessments.

**KHSS 333 Psychology of Coaching**

*3c-0l-3cr*

Emphasizes the interaction between sport psychology and coaching strategies. Includes history of sports psychology, motivating athletes, coaching personality types, and controlling emotions and stress in athletes. Focuses on the impact of social influence, group dynamics, and character development on sport performance. Examines aggression in sport as well as gender differences and cultural diversity issues.

**KHSS 335 Athletic Coaching**

*3c-0l-3cr*

Emphasizes coaching strategies and techniques for all sports. Includes coaching philosophy and style, motivating athletes and managing their behavior, teaching technical and tactical skills, and planning an approach to games and practices. Focusses on conditioning techniques, proper nutrition, and drug and alcohol prevention in athletes. The administration of the team, parents, referees, and liability risks is stressed. Examines aggression in sport, gender differences, cultural diversity issues, and the use of sport psychology strategies.

**KHSS 341 Evaluation in Health and Physical Education**

*3c-0l-3cr*

**Prerequisite:** Junior standing

Evaluation theory, instructional objectives, and cognitive test construction; technical and practical considerations in testing and interpretation of test results in both health and physical education.

**KHSS 343 Physiology of Exercise**

*3c-0l-3cr*

**Prerequisites:** Health and physical education, physical education and sport/exercise science, athletic training majors and a grade of “C” or better in KHSS 221 or C or higher in BIOL 150

Physiological effects of exercise in humans. Major factors of diet, conditioning, physical fitness, maximum performance level, and fatigue.

**KHSS 344 Adapted Physical Activity and Sport**

*3c-0l-3cr*

**Prerequisites:** KHSS 209 and one of the following: KHSS 221, 256, or BIOL 150

Recognition of structural deviations, corrective exercises, physical activity, and sport for individuals with a wide range of disabilities.

**KHSS 345 Survey of Orthopedic Injuries in Sport and Exercise**

*3c-0l-3cr*

**Prerequisites:** Grades of “C” or better in KHSS 221 or BIOL 150, and KHSS 185

A survey of common musculoskeletal injuries associated with participation in athletic activities, with emphasis on etiology, pathophysiology, and classification. General injury assessment and management procedures are also presented.

**KHSS 346 Preventive and Acute Care Skills in Athletic Training**

*0c-2l-1cr*

**Corequisite:** KHSS 345

Develops essential athletic training skills for the beginning and intermediate athletic training student. Emphasizes athletic taping and wrapping, open and closed wound care, vital signs and anthropometric measurements, immobilization and ambulation devices, protective equipment fitting, and transportation and transfer of the injured athlete.

**KHSS 347 Physiology of Exercise Laboratory**

*0c-2l-1cr*

**Corequisite:** KHSS 343

Laboratory experiences to illustrate physiological responses to exercise.

Skills associated with the use of current laboratory equipment and techniques are developed. Supplements lecture-based content from KHSS 343.

**KHSS 349 Applied Pediatric Exercise Lab**

*0c-2l-1cr*

**Prerequisite:** KHSS 343

Provides physical education students with an understanding of pediatric exercise concepts, particularly exercise programming, physical fitness, and assessment, related specifically to physical education. Provides the opportunity to practice administering field-based assessments of physical fitness and designing safe activities and/or exercise programs to enhance health, fitness, or performance in youth.

**KHSS 350 Health Aspects of Aging**

*3c-0l-3cr*

**Prerequisites:** PSYC 101, SOC 151 or 161, and junior standing

Current theory and research related to gerontology are introduced to increase understanding of the physical and psychosocial dimensions of aging. Additionally, emphasizes lifestyle factors and disease prevention aspects of aging. Recommended for students who plan to work with older adults.

**KHSS 351 Managing Budgets and Technology in Sport**

*3c-0l-3cr*

**Prerequisites:** KHSS 292, ECON 121, 122

Provides information concerning the application of finance and accounting principles to managerial control of sport organizations. Examines current economic and financial issues that impact the sports industry. Topics include budget development, funding, capital projects, financial analysis, licensing, and economic impact studies related specifically to managing sport. Emphasizes specific software packages currently being used to manage sport organizations.

**KHSS 353 Driver Education Program Management**

*3c-0l-3cr*

Emphasizes the development, organization, and management of high school driver education from the standpoint of its historical development to its present programs designed to meet the demands of the highway transportation system. Special emphasis on the role of the teacher in conducting a high-quality program that meets with student, parent, school, and community approval.

**KHSS 354 Application of Driver Education Instructional Modes**

*2c-2l-3cr*

**Prerequisites:** KHSS 251, 252, 353

Prepares prospective driver education teachers to plan, teach, and evaluate the four modes of driver education (classroom, on-road, simulation, and multiple-vehicle range). Teaching high school students in supervised laboratory sessions is provided.

**KHSS 356 Orthopedic Injury Assessment in Athletic Training**

*3c-2l-4cr*

**Prerequisites:** KHSS 345, 346

Teaches assessment procedures, evaluation methods, and proper athletic training protocol for neuromuscular and musculoskeletal injuries. In addition, administrative issues in athletic training are addressed emphasizing accurate medical documentation. Emphasizes subjective and objective assessment and documentation of findings.

**KHSS 370 Adapted Health and Physical Education**

*3c-0l-3cr*

**Prerequisites:** EDSP 102, KHSS 209; at least one of the following: KHSS 214, 215, 216, 217, 218, 316

Introduces the educational issues and methods used to effectively instruct students with disabilities and other issues that become barriers to learning. Includes a study of current laws and guidelines regarding the legal rights of students with disabilities and their parents. Identifies low and high incidence of disabilities, recognitions of structural deviation, and corrective exercises. Introduces instructional adaptations to facilitate learning in the health classroom and gymnasium.

**KHSS 375 Physiological Basis of Strength Training and Conditioning**

*3c-0l-3cr*

**Prerequisite:** Grade of “C” or higher in KHSS 221 or BIOL 150

Provides the anatomical and physiological basis of muscle function. Students also gain an understanding of changes that can be made through
strength training and conditioning, along with knowledge of programs that will bring about these changes. Opportunities for working with various types of equipment are available.

**KHSS 376 Athletic Training Clinical Practicum I**  
*0c-3l-3cr*  
**Prerequisites:** KHSS 345, 346  
Develops and demonstrates proficient psychomotor skills within the domains of athletic injury prevention and acute care, in coordination with a one-semester clinical field experience. Allows an opportunity to practice and apply skills taught under the direction of a preceptor within the IUP Athletic Department or an affiliated clinical site. Emphasizes specific skills such as those relating to safety/risk management, conditioning, equipment fitting, taping and wrapping, acute care, and transportation/transfer of the injured athlete. Restricted to students seeking eligibility to sit for the Board of Certification (BOC) for the Athletic Trainer examination.

**KHSS 377 Athletic Training Clinical Practicum II**  
*0c-3l-3cr*  
**Prerequisites:** KHSS 365  
Develops and demonstrates proficient psychomotor skills within the domain of athletic injury assessment, in coordination with a one-semester clinical field experience. Allows an opportunity to practice and apply skills taught under the direction of a preceptor within the IUP Athletic Department or an affiliated clinical site. Emphasizes specific skills such as those relating to anatomical landmarks' identification, orthopedic evaluations, and neurological evaluations. Restricted to students seeking eligibility to sit for the Board of Certification (BOC) for the Athletic Trainer examination.

**KHSS 380 Organization and Administration in Athletic Training**  
*3c-0l-3cr*  
**Prerequisite:** KHSS 345 or instructor permission  
Presents comprehensive instruction in such areas as health care administration; program, human, information, and resource management; and ethics and legal considerations in athletic training.

**KHSS 385 General Medical Conditions in Athletic Training**  
*2c-2l-3cr*  
**Prerequisite:** KHSS 345 or instructor permission  
An overview of general health assessment and physical examination techniques related to the athletic population. A systemic approach is used to address issues related to the anatomy, pathology, physiology, and diagnostic testing of both general conditions and diseases of the human body.

**KHSS 410 Exercise Prescription**  
*3c-0l-3cr*  
**Prerequisites:** Physical education and sport/exercise science majors and KHSS 343 with a grade of “C” or better  
Teaches individuals to write exercise prescriptions based on a subject’s tolerance for physical activity. Special emphasis is on risk factors, techniques of evaluation, drugs, injuries, environmental factors, and motivation and their role in physical activity assessment.

**KHSS 411 Physical Fitness Appraisal**  
*3c-0l-3cr*  
**Prerequisite:** KHSS 343 with a grade of “C” or better  
Involves the selection, administration, and interpretation of various tests for appraising the physical fitness levels of individuals. Information given concerning the various fitness components and discussions held so that each student gains an understanding of the variables to be tested.

**KHSS 412 Physical Activity and Stress Management**  
*3c-0l-3cr*  
Acquisition of necessary understanding of anxiety and stress, their nature, place in society, and intervention strategies as they relate to physical activity.

**KHSS 413 Physical Activity and Aging**  
*3c-0l-3cr*  
**Prerequisite:** KHSS 343 with a grade of “C” or better  
Presents major aspects of physical activity, its importance to the older adult, and the organization of an activity program. Attention to physiology of physical activity, effects of activity on growth and aging, exercise prescription, flexibility, overweight and obesity, and motivational strategies.

**KHSS 414 Exercise Electrocardiography**  
*1c-1l-3cr*  
**Prerequisites:** Physical education and sport/exercise science majors and KHSS 343 with a grade of “C” or better  
An introduction to the basic concepts of electrocardiography (ECG), including an understanding of electrophysiology, electrode lead placement, both rhythm strips and 12-lead interpretation. Utilizing electrocardiograms, students will also be able to recognize normal and abnormal rhythms, including those ECG abnormalities brought about by exercise. Normal and abnormal responses during Graded Exercise Testing are also interpreted.

**KHSS 415 Lifestyle Behavior Management for Physical Activity**  
*3c-0l-3cr*  
**Prerequisites:** KHSS 343 with a grade of “C” or better  
Examines a variety of strategies necessary to modify health behavior with an emphasis on physical activity. Focus is placed on development of skills necessary to work with clients/patients in group leadership and group process activities to assess and assist with behavior change for both the apparently healthy and those with multifaceted chronic disease as it relates to physical activity.

**KHSS 416 Functional Training for Strength and Conditioning**  
*3c-0l-3cr*  
**Prerequisites:** KHSS 343 and 375 with a grade of “C” or better  
Focuses on comparing and contrasting the scientific principles associated with traditional strength training and functional strength training techniques. Examines a variety of new techniques found in the fitness and sport performance industry and provides practical experience in both traditional and functional strength training techniques.

**KHSS 417 Contemporary Issues in School and Community Health**  
*3c-0l-3cr*  
Provides pedagogical strategies relevant to educators in school and community health education settings. Assist students in identifying, analyzing, promoting, and evaluating recent developments and issues in health.

**KHSS 420 Health Education and Promotion at the Workplace**  
*3c-0l-3cr*  
**Prerequisite:** KHSS 325 or instructor permission  
Addresses basic issues and problems in planning, implementing, and evaluating health education programming in a variety of school and worksite settings. Explores agencies and programs focused on advocacy of health education services. Emphasizes knowledge and practical skills required to become a certified health education specialist.

**KHSS 426 Health Science Instruction**  
*3c-0l-3cr*  
**Prerequisites:** KHSS 316, 318  
An overview of health curriculum with a focus on teaching methods and media of instruction. Includes unit development, opportunities for instruction, and guidelines for maintaining professional growth. Explores current research in teaching techniques, motivational strategies, and assessment of learning within a diverse population.

**KHSS 437 Coaching Disability Sport**  
*3c-0l-3cr*  
**Prerequisite:** KHSS 209 or instructor permission  
Introduces developmentally appropriate practice when coaching individuals with disabilities. Emphasizes accessible and inclusive practices that promote full participation of individuals with various disabling conditions. Explores program planning and assessment in various disability sports and games. (Offered as KHSS 373 before 2016-17.)

**KHSS 441 Psychosocial Implications for Health and Physical Education**  
*3c-0l-3cr*  
**Prerequisite:** Senior standing  
A study of psychological and sociological influences, both theoretical and empirical, and their effects on health and physical performance.

**KHSS 442 Senior Seminar: Professional Development in Health, Physical Education, and Sport**  
*3c-0l-3cr*  
**Prerequisite:** 90cr completed  
For majors of health and physical education and physical education and sport. Related to professional development issues and transition from college graduate to entry-level professional. Includes development of an electronic portfolio, assessment of postgraduation educational opportunities, and exploration of information literacy.

**KHSS 445 Business Practices in Sport**  
*3c-0l-3cr*
Prerequisites: KHSS 292, 320
Focuses on the application of business practices to operate a successful sports organization. Topics emphasized are promotion in sport, sport marketing, financing a sports organization, sport sponsorships, sales practices, public relations strategies, and media interaction. The unique application to the sport industry is emphasized.

KHSS 446 Therapeutic Modalities 3c-2l-4cr
Prerequisite: KHSS 365
A basic introduction to the use of therapeutic modalities and the role they play in the rehabilitation of athletic injuries. Physical agents used in the care of athletic injuries are presented, highlighting the physiological effects of each modality, as well as indications and contraindications for their use.

KHSS 448 Therapeutic Exercises for Athletic Injury Management 3c-2l-4cr
Prerequisites: KHSS 365, 375
The theoretical framework for athletic injury assessment and management of the injured athlete is discussed. A problem-solving approach to the selection and implementation of specific tests and development of skill in basic therapeutic exercise procedures for improving muscle performance, relaxation, and mobilization are included.

KHSS 450 Curriculum and Programming in Sexuality Education 3c-0l-3cr
Topics include anatomy and physiology of the human reproductive tracts, development, birth defects, contraception, venereal disease, and abortion. Not for credit toward degrees in biology.

KHSS 460 Law and Issues in Managing Sport 3c-0l-3cr
Prerequisite: KHSS 292
Emphasizes the interaction between the legal system and the sport industry. Topics include liability risk management, contracts, torts, sports agents, dispute resolution, and product liability. A focus on the influence of Title IX, antitrust exemption, religion, drug testing, and ergogenic aids on sport operations. The evolution of NCAA compliance and the issues that affect the sport industry are included.

KHSS 465 Sport Management Capstone 3c-0l-3cr
Prerequisites: KHSS 292, 320; 90cr completed
The emphasis is on improving personal effectiveness in the work environment for sport managers. Students develop observational skills and survey techniques needed for the sport industry. Thinking critically, problem solving, and applying transformative change models are emphasized. Disciplinespecific research articles are examined and critiqued. Prepares students to market their skills to the sport industry.

KHSS 472 Epidemiology of Physical Activity 3c-0l-3cr
Prerequisite: BIOL 301
Covers physical activity epidemiology from the evidence of the relationship between physical activity and chronic disease and the assessment of physical activity and/or sedentary behavior. Explores individual and population-based lifestyle intervention efforts to enhance health behavior and promote disease prevention in diverse populations.

KHSS 476 Athletic Training Clinical Practicum III 0c-3l-3cr
Prerequisites: KHSS 365, 385, 446
Develops and demonstrates proficient psychomotor skills within the domains of athletic training organization/administration and education/guidance, in coordination with a one-semester clinical field experience. Allows an opportunity to practice and apply skills under the direction of a preceptor within the IUP Athletic Department or an affiliated clinical site. Emphasizes specific skills such as those relating to communication, recordkeeping, planning, budgeting and purchasing, facility design, policies/procedures, and other athletic health care managerial/administrative duties. Athletic training instruction and guidance skills are also addressed. Restricted to students seeking eligibility to sit for the Board of Certification (BOC) for the Athletic Trainer examination.

KHSS 477 Athletic Training Clinical Practicum IV 0c-3l-3cr
Prerequisites: KHSS 446, 448
Develops and demonstrates proficient psychomotor skills within the domain of athletic injury rehabilitation, in coordination with a one-semester clinical field experience. Allows an opportunity to practice and apply skills under the direction of a preceptor within the IUP Athletic Department or an affiliated clinical site. Emphasizes specific skills such as exercise, manual therapy, and other advanced musculoskeletal screening and therapeutic intervention techniques. Restricted to students seeking eligibility to sit for the Board of Certification (BOC) for the Athletic Trainer examination.

KHSS 480 Professional Issues in Athletic Training 3c-0l-3cr
Prerequisites: KHSS 380, 476
Explores topics related to professional development and responsibility in athletic training. Examines current research findings in athletic training. Addresses preparation for the Board of Certification (BOC) examination.

KHSS 481 Special Topics var-1-3cr
Prerequisite: As appropriate to course content
Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 481 are primarily for upper-level undergraduate students.

KHSS 482 Independent Study var-1-3cr
Prerequisite: Prior approval through advisor, faculty member, department chair, dean, and Office of the Provost
Students with interest in independent study of a topic not offered in the curriculum may propose a plan of study in conjunction with a faculty member. Approval is based on academic appropriateness and availability of resources.

KHSS 492 Health Fitness Instruction 3c-0l-3cr
Prerequisites: Physical education and sport/exercise science majors only. Grade of "C" or better in all of the following: KHSS 285, 286, 315, 343, 375, and either KHSS 410 or 411. May only take KHSS 410 or 411 concurrently with KHSS 492.
Students acquire the knowledge, skills, and abilities required to develop programs of physical activity and fitness for healthy adults and those with controlled disease. Experience in leading an exercise class and knowledge of functional anatomy and exercise physiology are also expected before participation in the class.

KHSS 493 Internship var-3-12cr
Prerequisites: Physical education and sport/exercise science, physical education and sport/sport administration, and athletic training majors, senior status or permission.
Integrates classroom experience with practical experience in community service agencies or industrial, business, or governmental organizations. Senior standing required.

KORE: Korean
Department of Foreign Languages
College of Humanities and Social Sciences

KORE 101 Elementary Korean I 4c-0l-4cr
For beginning students. Introduces the Korean language, with attention focused on three modes of communication in present and past time frames: interpretive listening and reading, interpersonal speaking and writing, and presentational speaking and writing. Also imparts knowledge of Korean culture and society. Attendance is required. Students may not register for or take a D/F repeat in KORE 101 when credit has already been received for a higher-numbered Korean course.

KORE 102 Elementary Korean II 4c-0l-4cr
Prerequisite: KORE 101
A continuation of KORE 101. Focuses on communication through listening, speaking, reading, and writing. Students continue to learn to identify and write Korean characters. Builds on the three modes of communication—interpretive, interpersonal, and presentational—to build proficiency in using the Korean language in real-life situations. Also imparts knowledge of Korean culture and society. May not register for or take a D/F repeat in KORE 102 when credit has already been received for a higher-numbered KORE course.
KORE 201 Intermediate Korean 4c-0l-4cr
Prerequisite: KORE 102
A continuation of KORE 102. Focuses on communication through listening, speaking, reading, and writing. Students continue to learn to identify and write complicated Korean vowels and consonants. Builds on the three modes of communication—interpretive, interpersonal, and presentational—to build proficiency in using the Korean language in real-life situations. Also imparts knowledge of Korean culture and society. Attendance is required. Students may not register for or take a D/F repeat in KORE 201 when credit has already been received for a higher-numbered KORE course.

LDSP 281 Special Topics in Latin American Studies var-1-3cr
Prerequisite: As appropriate to course content
Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 281 are offered primarily for lower-level undergraduate students.

LAS 350 The Mayas: Culture, Literature, and Numbers 3c-0l-3cr
Explores the world of the ancient and modern Mayan civilization, developing student understanding of a culture that differs from modern society. Through discussion of and hands-on activities involving Mayan geography, religion, calendar, mathematics, food, writing, and literature, students develop an appreciation of the dimensions of Mayan culture, enabling them to make generalizations about modern cultural development.

LAS 480 3c-0l-3cr
A multidisciplinary colloquium emphasizing reading, discussion, and writing on specialized topics related to Latin American society, culture, history, literature, politics, geography, economics, and business. Topics include, but are not limited to, the nature of pre-Columbian cultures; the effects of colonialism and independence on present-day Latin America; the relationship between Latin America and the United States, Africa, and Europe; and the growing presence and significance of people of Hispanic descent in the United States. Open to all majors; required for Latin American studies minors.

LDSP 482 Experiential Applications in Leadership var-2-3cr
Prerequisites: LDSP 361. Prior approval through the Teamwork and Leadership Studies director, Student’s Dean, and Office of the Provost Independent study providing an opportunity to engage in a leadership practicum. Provides an experiential learning experience for students in organizational leadership positions, or direct observation of a day-to-day leader, to practice personal team member and leadership skills. Experiential applications can be performed in industry, academia, government, municipalities, and select student leadership positions. Each experiential application, detailing the nature of the leadership position and experience, must be approved by the Team and Leadership Studies Program Director prior to 1) starting experience and 2) before the end of the drop/add period. Students will log a minimum of 25 hours of coursework and 50 hours experiential work for 2cr or 37.5 hours of coursework and 75 hours experiential work for 3cr (50 minutes coursework and 100 minutes experiential work (150 minutes total) per week per credit for 15 weeks).

LDSP 499 Leadership Capstone 1c-0l-1cr
Prerequisites: LDSP 361, 60 or more credits
Explores leadership through reflection and analysis of learning experiences within leadership minor. Emphasizes development of students’ philosophies of leadership through self-reflection, peer-to-peer dialogue, and development of an individualized learning development plan with specific attention to interpersonal dynamics; communication; analyzes leadership styles; theories, task vs. relationship behaviors; overcoming obstacles; diversity strengths; conflict management; leadership for change; individual strengths and weaknesses; establishing a constructive climate and reflective development of personal leadership and team member skills.

LGBT 200 Introduction to Lesbian, Gay, Bisexual, Transgender, and Queer Studies 3c-0l-3cr
Prerequisite: None
Introduces students to lesbian, gay, bisexual, transgender, and queer (LGBT&Q) studies as an interdisciplinary academic field; draws substantially on sociology, psychology, history, politics, religion; considers literary and media representations of the LGBT&Q populations and experiences. Focuses on the exploration of the cultural, social, historical, and political understandings of sexuality and gender marginality that have shaped identities in modern times. Addresses contemporary issues related to LGBT&Q individuals and communities and critically examines the meaning and representation of heterosexuality and gender normativity in relation to LGBT&Q experiences. Considers key intersections of sexual orientations, identities, and behaviors in relation to age, race, ethnicity, and social class.

LGBT 400 Queer Theory 3c-0l-3cr
Familiarizes students with the scholarship and theories surrounding sexualities, sexual identities, and gender identities. Examines the literature and evidence on the ways in which social forces influence sexualities and gender (orientation, identity) as well as performance (how we humans act out our sexuality). Analyzes literatures on the diversity of non-hegemonic desires, behaviors, orientations, identities, and communities and related issues from a trans-historical, cross-cultural, and interdisciplinary perspective. Explores the ways human sexualities and gender identities are themselves social forces as societies respond to sexual variations in terms of identities such as gay, lesbian, bisexual, transgender, queer, questioning, and a range of heterosexualities.
critical thinking, resource analysis, and the ethical and appropriate use of information and develop a base level of information literacy skills. (Titled Introduction to Library Resources before 2014-15.)

**LIBR 152 Information Issues and Resources for the Health Sciences** 1c-0I-1cr

**Prerequisite:** Enrollment in one of the following programs: nursing and allied health professions; food and nutrition; kinesiology, health, and sport science; or public health

An in-depth look at how information is located and used in the health sciences, including a variety of traditional and non-traditional resources, as well as the cost of that information, the availability of misinformation, evaluation techniques for evidence-based practice, and the role of the Institutional Review Board (IRB) in health sciences research.

**LIBR 201 Internet and Multimedia** 3c-0I-3cr

**Prerequisite:** BTED/COSC/IFMG 101 or prior exposure to word processing and electronic mail

Focuses on the evaluation of information and multimedia resources available on electronic networks when doing research in an area of one’s choice. An information literacy course is for students to gain a more in-depth understanding of the information resources available electronically and of how to utilize them more effectively in communicating. Students learn how to access and utilize these resources for two-way communications and support for decision making while incorporating selected elements in multimedia presentations of their own design. (BTED/COMM/COSC/IFMG/LIBR 201 may be used interchangeably for D/F repeats and may not be counted for duplicate credit.)

**LIBR 251 Information Access in the Digital Age** 2c-0I-2cr

An introduction to library research equips the student with information literacy skills so that the student is able to determine the extent of information needed; access the needed information effectively and efficiently; evaluate information and its sources critically; incorporate selected information into one’s knowledge base; use information effectively to accomplish a specific purpose; understand the economic, legal, and social issues surrounding the use of information; and access and use information ethically and legally. Provides conceptual and practical expertise as an information networker to locate, evaluate, and use effectively the needed information. Basic knowledge of computer applications is helpful.

**LIBR 281 Special Topics** var-1-3cr

**Prerequisite:** As appropriate to course content

Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 281 are offered primarily for lower-level undergraduate students.

**LLRN: Living-Learning College**

**LLRN 100 Cocurricular Activity Lab** 0C-2I-0.5cr

**Corequisite:** Enrolled in a Living-Learning Certificate Program

A first-year practical cocurricular experience to enhance the course work contained in the Living Learning Certificate Program.

**LLRN 200 Cocurricular Activity Lab** 0C-2I-0.5cr

**Corequisite:** Enrolled in a Living-Learning Certificate Program

A second-year practical cocurricular experience to enhance the course work contained in the Living Learning Certificate Program.

**MATH: Mathematics**

**Department of Mathematical and Computer Sciences**

**Kopchick College of Natural Sciences and Mathematics**

**MATH 100 Intermediate Algebra** 3c-0I-3cr

**Note:** May not be taken after successfully completing MATH 105 or 110 or a calculus course without written Mathematics and Computer Science Department chair approval.

Basic course in algebra including factoring, exponents and radicals, systems of linear equations, complex fractions, and inequalities. For those students who lack the basic algebraic skills required in MATH 105 or 110. Will not meet Liberal Studies math requirements.

**MATH 101 Foundations of Mathematics** 3c-0I-3cr

**Prerequisites:** None. Note: May not be taken after successfully completing a math course with a larger course number without written Mathematics and Computer Science Department chair approval. This course also may not be taken by students who place into DVST 083 until successful completion of said course without written Mathematics and Computer Science Department chair approval.

Introduces logic and a mathematical way of analyzing problems; develops an appreciation for the nature, breadth, and power of mathematics and its role in a technological society; introduces useful mathematics or mathematics-related to student interests. Possible topics include logic, problem solving, number theory, linear programming, probability, statistics, intuitive calculus, introduction to computers, mathematics of finance, game theory.

**MATH 105 College Algebra** 3c-0I-3cr

**Prerequisite:** MATH 100 or appropriate placement test score or permission of the Mathematics and Computer Science Department chair

**Note:** May not be taken after successfully completing either a calculus course or MATH 110 without written Mathematics and Computer Science Department chair approval.

Teaches students to appropriately analyze and interpret numerical, graphical, and algebraic representations to enable them to model complex situations using mathematical structures and increase their problem-solving skills. Particular focus is given to polynomial, exponential, and logarithmic functions in order to prepare students for further study in business calculus and/or statistics.

**MATH 107 Business Mathematics** 3c-0I-3cr

**Prerequisite:** MATH 100 or appropriate placement test score, for majors in Eberly College of Business and Information Technology. This course may not be taken after successfully completing a calculus course without written approval from the Mathematical and Computer Sciences Department chair

**Corequisite:** MATH 108. A student who has already passed MATH 108 can take 107 alone.

Focuses on polynomial, exponential, and logarithmic business models. Explores methods to appropriately analyze and interpret numerical, graphical, and algebraic data sets generated from business applications. Introduces the central ideas of calculus with particular emphasis to business applications of derivatives and integrals.

**MATH 108 Applications of Business Mathematics** 1c-0I-1cr

**Prerequisite:** MATH 100 or appropriate placement test score for, majors in Eberly College of Business and Information Technology only.

**Corequisite:** MATH 107. A student who has already passed MATH 107 can take 108 alone.

Focuses on business models and applications in a computer classroom setting where appropriate technology is used to apply concepts from MATH 107 to solve problems in business. Emphasis is given to the application of calculus through the use of mathematical software.

**MATH 110 Elementary Functions** 3c-0I-3cr

**Prerequisite:** MATH 100 or appropriate placement test score or permission of the Mathematics and Computer Science Department chair

**Note:** May not be taken after successfully completing a calculus course without written Mathematics and Computer Science Department chair approval.

Prepares mathematics and science students for the study of calculus. Topics include detailed study of polynomial, exponential, logarithmic, and trigonometric functions.

**MATH 111 First-year Seminar 1c-0I-1cr**

**Prerequisites:** Mathematics, Applied Mathematics, Actuarial Mathematics, or Mathematics Education major, and less than 60 earned credits.

A first-year seminar experience that acclimates students to mathematical culture, curricular, and cocurricular experiences associated with transitioning to college mathematics. Includes application of theories of change as related to transition to higher education, and provides a perspective of the diversity of mathematical areas for research and careers associated with a
Mathematics degree. Emphasis includes reading and writing about mathematics.

**MATH 115 Applied Mathematics for Business** 3c-0l-3cr  
**Prerequisites:** MATH 105 or 110 or equivalent placement test score or permission of the Mathematics and Computer Science Department chair.  
**Note:** May not be taken after successfully completing a calculus course without written Mathematics and Computer Science Department chair approval.

A review of elementary functions, including logarithmic and exponential functions. Business majors are introduced to the central ideas of calculus (limit, derivative, and integral). Applications to business and economics are emphasized.

**MATH 121 Calculus I for Natural and Social Sciences** 4c-0l-4cr  
**Prerequisite:** MATH 105 or 110 or equivalent placement test score or permission of the Mathematics and Computer Science Department chair.  
**Note:** May not be taken after successfully completing a calculus course without written Mathematics and Computer Science Department chair approval.

A review of elementary functions, including logarithmic and exponential functions. Natural and social science majors are introduced to the central ideas of calculus, including limit, derivative, and integral. Applications to natural and social sciences are emphasized.

**MATH 126 Calculus II for Natural and Social Sciences** 3c-0l-3cr  
**Prerequisite:** MATH 121  
Applications of integrals to natural and social sciences, functions of several variables, trigonometric functions, sequences and series, numerical methods, and differential equations.

**MATH 125 Calculus I/Physics, Chemistry, Mathematics** 3c-0l-3cr  
**Prerequisite:** MATH 110 or equivalent placement (algebra, geometry, and trigonometry)  
The first of a three-semester sequence for math and science majors covering the theory of calculus and its application in problem solving. Topics include functions, limits, continuity, derivatives, applications of derivative, integrals, and applications of the integral. (Trigonometric, exponential, and logarithmic functions are included.)

**MATH 126 Calculus II/Physics, Chemistry, Mathematics** 3c-0l-3cr  
**Prerequisite:** MATH 125 or the equivalent  
The second of a three-semester sequence for math and science majors. Topics include techniques and applications of integration, sequences and series, convergence tests, Taylor polynomials, separable differential equations, vectors, and three-dimensional coordinates. (Trigonometric, exponential, and logarithmic functions are included.)

**MATH 151 Elements of Mathematics I** 3c-0l-3cr  
**Prerequisites:** Appropriate major: special education, speech and language pathology, deaf education, family and consumer sciences education, art education, child development and family relations, middle level education 4-8, early childhood education, or early childhood/special education.  
Topics included are mathematical systems, systems of numeration, developing the set of integers, rational numbers, real numbers, and the four function operation concepts.

**MATH 152 Elements of Mathematics II** 3c-0l-3cr  
**Prerequisites:** MATH 151, Child Development & Family Relations, Speech and Language Pathology, Early Childhood Ed/Special Ed, Family & Consumer Science Education, Middle Level Education, Art Education, Early Childhood Education, Special Education majors only  
Topics included are organizing and analyzing data, statistics, probability, geometric shapes measurement, congruence and similarity, coordinate geometry, and transformational geometry.

**MATH 153 Elements of Algebra** 3c-0l-3cr  
**Prerequisite:** MATH 151  
Explores some of the basic algebraic concepts including the real number system and solving linear equations and inequalities with one and two variables. An emphasis will also be placed on studying the coordinate plane, exploring the slope of a line, graphing lines, and writing equations of lines. Connections are made with the teaching and learning of algebraic concepts in the elementary and middle schools.

**MATH 171 Introduction to Linear Algebra** 3c-0l-3cr  
An introduction to vector spaces, linear transformations, determinants, and matrix algebra. Topics are presented in a direct and intuitive approach.

**MATH 214 Probability and Statistics for Business Majors** 3c-0l-3cr  
Studies the methods of describing data, probability theory, discrete and continuous random variables, sampling distributions, estimation and tests of hypothesis for means, proportions, and variance, and simple linear regression and correlation.

**MATH 216 Probability and Statistics for Natural Sciences** 3c-0l-3cr  
**Prerequisite:** MATH 121 or 125  
Frequency distributions, graphical representations of data, measures of central tendency and variation, correlation and regression, probability, probability distributions, and sampling distributions. Inferential statistics including confidence intervals and parametric and nonparametric tests of hypotheses. Emphasis is on applications in the natural sciences using graphing calculators and statistical software.

**MATH 217 Probability and Statistics** 3c-0l-3cr  
**Prerequisite:** For non-mathematics majors  
An applied statistics course that uses basic statistical methodologies to explore data and answer research questions. Summarization, analysis and interpretation of data from the social sciences and other related areas. Topics include frequency distributions, graphical summaries, elementary probability, estimation, testing hypotheses, and correlation and regression. Emphasis upon applications using appropriate technology, as opposed to theoretical development of topics.

**MATH 225 Calculus III/Physics, Chemistry, Mathematics** 3c-0l-3cr  
**Prerequisite:** MATH 126 or the equivalent  
The third of a three-semester sequence for math and science majors. Topics covering the calculus of functions of several variables include vector functions and space curves, arc length, curvature, partial derivatives, gradients, areas and volumes in various coordinate systems, Lagrange multipliers, line integrals, Green’s Theorem, and applications of multiple integrals. (Trigonometric, exponential, and logarithmic functions are included.)

**MATH 271 Introduction to Mathematical Proofs I** 3c-0l-3cr  
**Prerequisites:** MATH 121 or 125; 171  
Gives basic ideas necessary to prove results in mathematics. Includes but is not limited to logic of mathematics, basic methods of proof, algebra of sets, equivalence relations and partitions of sets, functions, and mathematical induction.

**MATH 272 Introduction to Mathematical Proofs II** 3c-0l-3cr  
**Prerequisites:** MATH 126 and 271 with a grade of “C” or better  
A further study of the basic ideas of contemporary mathematics. Topics include but are not limited to mathematical induction, cardinality of sets, relations, methods of proof in number theory, analysis, and algebra.

**MATH 281 Special Topics** var-1-3cr  
**Prerequisite:** As appropriate to course content  
Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 281 are offered primarily for lower-level undergraduate students.

**MATH 309 Discrete Mathematics** 3c-0l-3cr  
**Prerequisites:** COSC 110 and MATH 121 or 125  
Topics include set algebra, mappings, relations, semigroups, groups, directed and undirected graphs, Boolean algebra, and propositional logic, with examples and applications of these various areas of computer science.
Mathematics 317 Probability and Statistics for Elementary/Middle-Level Teachers 3c-0l-3cr
Prerequisite: MATH 152
Introduces concepts of probability and statistics by exploring and discovering key ideas related to data analysis and making predictions. Appropriate technology is incorporated. Explores curricular materials, resources, and activities relevant to teaching diverse groups at the elementary/middle level.

MATH 320 Mathematics for Early Childhood 3c-0l-3cr
Prerequisite: grades of “C” or better in MATH 152 and ECED 200, may not be taken concurrently
Studies child-centered, activity-oriented mathematics programs for early childhood education (preK-grade 1). Focuses on helping children develop understanding and insight into basic concepts of mathematics through the use of manipulative materials. Topics include prenumber activities, number activities, numeration, operations on whole numbers, estimation, rational numbers, geometry, measurement, probability, statistics, and problem solving.

MATH 330 Teaching Mathematics in the Elementary School 3c-0l-3cr
Prerequisite: grades of C or better in ECED 280 and MATH 320, may not be taken concurrently
Examines contemporary curriculum and methods of instruction used in elementary school mathematics (grades 2-4). Students become acquainted with books, materials, and other resources helpful to prospective teachers. Activities include experiences in teaching elementary school mathematics.

MATH 340 Principles of Secondary School Mathematics 3c-0l-3cr
Prerequisite: MATH 271
Provides students with mathematics content and mathematical thinking they need to teach in secondary schools, as well as to connect the content learned in college mathematics courses with the secondary curriculum. Open to secondary mathematics education majors only.

MATH 341 Differential Equations 3c-0l-3cr
Prerequisite: MATH 122 or 126
Emphasizes techniques of solution and applications of differential equations. Topics include first order equations, second order linear equations, systems of linear equations, and series solutions of differential equations. (Offered as MATH 241 before 2016-17.)

MATH 342 Advanced Mathematics for Applications 4c-0l-3cr
Prerequisites: MATH 122 or 225; 341
Deals with the application of mathematics to problems of science. Emphasizes the three phases of such an application and the development of skills necessary to carry out each step: (1) translation of the given physical information to a mathematical model; (2) treatment of the model by mathematical methods; (3) interpretation of the mathematical result in physical terms. Topics include vector calculus, integral theorems, Fourier series, partial differential equations, and the Laplace transformation.

MATH 343 Introduction to Numerical Methods 3c-0l-3cr
Prerequisites: COSC 110, MATH 121 or 125
Algorithmic methods for function evaluation, roots of equations, solutions to systems of linear equations, function interpolation, numerical differentiation, and integration and use of spline functions for curve fitting. The focus is on managing and measuring errors in computation. Also offered as COSC 343; either MATH 343 or COSC 343 may be substituted for the other and may be used interchangeably for D/F repeats but may not be counted for duplicate credit.

MATH 350 History of Mathematics 3c-0l-3cr
Prerequisite: MATH 122 or 126 or instructor permission
Development of the central concepts of mathematics from ancient times up to the development of calculus in the 17th century. Mathematical concepts are placed in historical perspective. The use of the history of mathematics as a pedagogical tool and its relationship to other sciences is addressed.

MATH 353 Theory of Numbers 3c-0l-3cr
Prerequisite: MATH 271 with a grade of “C” or better
Divisibility, congruences, primitive roots, number theoretic functions, Diophantine equations, continued fractions, quadratic residues.

MATH 355 Foundations of Geometry I 3c-0l-3cr
Prerequisites: MATH 171, 271 with grades of “C” or better
Studies various groups of transformations and geometries associated with these groups in the Euclidean plane. The Euclidean Similarity and affine and projective groups of transformations are studied.

MATH 363 Mathematical Statistics I 3c-0l-3cr
Prerequisite: MATH 216; 225 (may be taken concurrently)
Probability theory necessary for an understanding of mathematical statistics is developed. Applications of set theory to models, combinations and permutations, binomial, Poisson and normal distributions, expected values, and moment generating functions.

MATH 364 Mathematical Statistics II 3c-0l-3cr
Prerequisite: MATH 363
Multivariate distributions, change of variable technique, chi-square distribution, estimation, confidence intervals, hypothesis testing, contingency tables, goodness of fit. Practical applications are used to aid in the development.

MATH 371 Linear Algebra 3c-0l-3cr
Prerequisite: MATH 171, 271 with a grade of “C” or better
Vector spaces and linear transformations are studied in a theoretical setting. Also, canonical forms and multilinear algebra are studied.

MATH 411 Univariate Data Analysis 3c-0l-3cr
Prerequisite: MATH 214 or 216 or 217 or instructor permission
An applied statistics course in descriptive statistics, statistical inference procedures, regression analysis, analysis of variance, and analysis of deviance. Inference procedures for population means and proportions are developed. Simple linear regression, multiple linear regression, one-way ANOVA, two-way ANOVA, Poisson regression, and logistic regression models are used to analyze data. Emphasizes the applied aspects of these statistical models and uses computer software for data analysis.

MATH 412 Multivariate Statistics 3c-0l-3cr
Prerequisite: MATH 214 or 216 or 217 or instructor permission
An applied statistics course that focus on multivariate statistical methods. Research procedures on the relationship among variables, significance of group differences, prediction of group membership, and structure exploration are introduced. Factorial analysis of variance, analysis of covariances, multivariate analysis of variance and covariance, path analysis, factor analysis, and discriminate analysis are introduced and used to analyze data. Emphasizes the applied aspects of these statistical methods and uses computer software for data analysis.

MATH 413 Methods of Teaching Mathematics at the Middle Level 3c-0l-3cr
Prerequisites: MATH 152, MIDL 315
Examines the current curricula and methods of instruction used in middle-level classrooms. Follows an investigative approach to middle-level mathematics instruction through hands-on activities that are standards based. Explores methods of teaching in diverse classrooms and teaching students with special needs.

MATH 416 Time Series Analysis 3c-0l-3cr
Prerequisite: MATH 363 or 411 or ECON 356 or instructor permission
Applied statistics course in the analysis and forecasting of time series data. Linear time series regression models, ARIMA models, SARIMA models, GARCH models, and spectral theory are used to examine time series data. Emphasizes the applied aspects of these models. Computer software is used for data analysis.

MATH 417 Statistical Applications 3c-0l-3cr
Prerequisite: MATH 214 or 216 or 217 (for non-mathematics majors)
Using computer programs, a wide array of statistical procedures for educational research workers is explored. Basic concepts of statistical inference and prediction are reviewed, including regression analysis and prediction, hypothesis testing, analysis of variance and covariance, and partial and prediction. Sampling techniques and statistical principles underlying their use are introduced. Consideration to the practical problems associated with implementation.

**MATH 418 Sampling Survey Theory and Its Application** 3c-0l-3cr  
**Prerequisite:** (For non-mathematics majors) MATH 214 or 216 or 217  
Directed to the student who is or will be doing quantitative research, including linear, logistic, Poisson, exponential, and trigonometric functions. Appropriate technology is incorporated. Explores curricular materials, resources, and activities relevant to teaching diverse groups at the elementary/middle level.

**MATH 420 Patterns and Functions for Elementary/Middle-Level Teachers** 3c-0l-3cr  
**Prerequisite:** MATH 152  
Examines and develops expertise with sequences, patterns, and functions, including linear, quadratic, logarithmic, exponential, and trigonometric functions. Appropriate technology is incorporated. Explores curricular materials, resources, and activities relevant to teaching diverse groups at the elementary/middle level.

**MATH 421 Advanced Calculus I** 3c-0l-3cr  
**Prerequisite:** MATH 272 with a grade of “C” or better  
A study of set theory, real number system, functions, topology of Cartesian space, sequences, convergence and uniform convergence, continuity, and uniform continuity.

**MATH 422 Advanced Calculus II** 3c-0l-3cr  
**Prerequisite:** MATH 421  
Includes the study of convergence sequences in R<sub>n</sub>, global properties of continuity, uniform continuity, differentiation of R<sub>n</sub>, Riemann integrals, and infinite series.

**MATH 423 Complex Variables** 3c-0l-3cr  
**Prerequisite:** MATH 225  
An introduction to the theory of functions of a complex variable. Topics included are elementary functions, analytic functions, conformal mapping, integration, series, and application.

**MATH 427 Introduction to Topology** 3c-0l-3cr  
**Prerequisite:** MATH 272 with a grade of “C” or better  
A study of sets, functions, continuity, compactness, the separation axioms, and metric spaces; application of topology to analysis is demonstrated.

**MATH 430 Seminar in Teaching Secondary School Mathematics** 3c-0l-3cr  
**Prerequisites:** Junior status (60cr or more), a declared major in mathematics education  
**Prerequisite or Corequisite:** EDUC 242  
Provides insights into the teaching and learning of numbers and operations, algebra, geometry, measurement, probability, and statistics. Students become aware of and use the resources and methods of instruction for teaching mathematics at the secondary level. Must be taken within two semesters before student teaching.

**MATH 445 Deterministic Models in Operations Research** 3c-0l-3cr  
**Prerequisites:** MATH 122 or 225; 171  
An introduction to using the basic tools of solving deterministic models in operations research. Includes optimization techniques and applications such as linear programming, nonlinear and dynamic programming, transportation models, and network models. In addition, sensitivity analysis, duality, simplex methods, and integer programming are discussed. Uses technology to solve problems and interpret the results.

**MATH 446 Probabilistic Models in Operations Research** 3c-0l-3cr  
**Prerequisites:** MATH 122 or 225; 171; 216  
A survey of probabilistic methods for solving decision problems under uncertainty. Probability review, decision theory, queuing theory, inventory models, and Markov chains are covered. Uses technology to solve problems and interpret the results.

**MATH 447 Modeling and Simulation** 3c-0l-3cr  
**Prerequisites:** MATH 122 or 126; 171; 216  
Construction and solution of mathematical models. Emphasizes applications in areas such as logistics, natural and social sciences, and manufacturing. Discrete and continuous system models are analyzed using mathematical and computer-based methods. An introduction to computer simulation. An introductory course in differential equations is recommended but not required.

**MATH 448 Introduction to Financial Mathematics** 3c-0l-3cr  
**Prerequisites:** MATH 115 or 125 or 121; and MATH 214 or 216 or 217  
A rigorous mathematical treatment of the theory associated with financial transactions is undertaken. Geometric series and other concepts are used to construct mathematical models for analytically pricing various financial securities based on the time value of money. Studies how to construct mathematical models for pricing cash flows and explores the equivalency of different cash flows. Includes a detailed study of interest theory and financial economics. Prepares students for the Society of Actuaries Financial Mathematics (FM) exam.

**MATH 450 Topics in Applied Computational Mathematics** 3c-0l-3cr  
**Prerequisites:** MATH 171, 225, and COSC/MATH 343 or instructor permission  
Focuses on using computational methods to solve applied mathematics problems. Content varies from year to year. Students gain experience in solving practical problems, using various mathematical software packages, giving oral presentations, preparing technical reports, reading field-related journals, and integrating scientific visualization.

**MATH 456 Geometry for Elementary/Middle-Level Teachers** 3c-0l-3cr  
**Prerequisite:** MATH 152  
Students become acquainted with an informal, intuitive approach to geometry. Activities and materials for teaching geometrical concepts to children are an integral part of the course.

**MATH 457 Number Theory for Elementary/Middle-Level Teachers** 3c-0l-3cr  
**Prerequisite:** MATH 152  
Provides insights into the teaching and learning of numbers and operations, algebra, geometry, measurement, probability, and statistics. Students become aware of and use the resources and methods of instruction for teaching mathematics at the secondary level. Must be taken within two semesters before student teaching.

**MATH 458 Logic and Logical Games for Elementary/Middle-Level Teachers** 3c-0l-3cr  
**Prerequisite:** MATH 152  
An introduction to topics of elementary number theory including divisibility, prime numbers, factorization, binary numbers, modular arithmetic, identification codes, cryptography, Diophantine equations, Euclidean algorithm, and alternative algorithms. Explores curricular materials, resources, and activities relevant to teaching number theory at the elementary/middle level.

**MATH 459 Technology in Elementary/Middle-Level Teachers** 3c-0l-3cr  
**Prerequisite:** MATH 152  
Hands-on experiences with technology are an important focus.

**MATH 460 Technology in Mathematics Instruction** 3c-0l-3cr  
**Prerequisites:** COSC 110 or 108, junior status, mathematics education major or instructor permission, and completion of EDUC 242 with grade of “C” or better  
Laboratory based and designed to provide preservice mathematics teachers...
with expertise in instructional technology for teaching mathematics at the secondary level. A strong emphasis is placed on the integration of pedagogy and subject matter knowledge. Must be taken within two semesters before student teaching.

**MATH 461 Discrete Mathematics for Elementary/Middle-Level Teachers**  
**Prerequisite:** MATH 152  
Topics in discrete mathematics, including systematic counting, graph coloring, networks, and their applications, as well as the historical background and the role of discrete mathematics in today’s world. Uses a problem-solving, hands-on approach to content. Explores curricular materials, resources, and activities relevant to teaching discrete mathematics at the elementary/middle level.

**MATH 471 Algebra for Elementary/Middle-Level Teachers**  
**Prerequisite:** MATH 152  
Topics include multiple representations of sequences, integers, expressions, equations, systems of equations, inequalities, and matrices. Representations of expressions and equations are explored through the use of hands-on and visual aids and with appropriate technology. Connections are made with the teaching and learning of algebraic concepts at the elementary/middle level.

**MATH 476 Abstract Algebra I**  
**Prerequisite:** MATH 272 with a grade of “C” or better  
Development of theory of integral domains, fields, rings, and groups; designed to develop student’s power to think for himself or herself and to improve ability to construct formal proofs.

**MATH 477 Abstract Algebra II**  
**Prerequisite:** MATH 476  
Continues study of algebra by use of axiomatic method; Euclidean domains; polynomial domains and extension fields included; interrelationships between these structures and simpler structures, particularly groups and rings, are developed as in study of Galois group of a polynomial and in an introduction to Galois theory.

**MATH 480 Senior Seminar**  
**Prerequisite:** Senior standing (90 or more credits)  
Assesses the effectiveness of the mathematics curriculum and provides mathematics majors with a culminating mathematical experience. Also focuses on synthesizing mathematics skills while researching, developing, and presenting a mathematical topic. Students solve practical problems, use various mathematical software packages, give oral presentations, and prepare technical reports.

**MATH 481 Special Topics**  
**Prerequisite:** As appropriate to course content  
Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 481 are primarily for upper-level undergraduate students.

**MATH 493 Internship in Mathematics**  
**Prerequisites:** Completion of core curriculum, completion of application Positions with participating companies or agencies provide students with experience in mathematics-related work under the supervision of the agencies and faculty. Requirements include one to three on-site consultations, two university consultations, completion of progress reports, and presentation of final cumulative paper. Internship credit may not be used in fulfilling mathematics major course requirements.

**MGMT 105 Introduction to Business**  
**Prerequisites:** MATH 105 or MATH 107, and MATH 214, junior standing,  
An introduction to business, emphasizing critical issues affecting the business world, such as globalization, technology, ethics, and diversity. An overview of the various functional areas of business, it provides an understanding of the need for integration of those functional areas for success in business. Stresses experiential learning, develops team building skills, strengthens oral and written communication skills, and provides for personal interaction with university faculty. An introduction to career opportunities and curriculum choices in business. (Offered as BTST 105 before 2014-15.)

**MGMT 275 Introduction to Entrepreneurship**  
**Prerequisite:** Sophomore status  
Entrepreneurship is defined, common myths discussed, and basic characteristics of entrepreneurs identified and reviewed. Includes topics such as psychology of entrepreneurship, economic and social aspects of entrepreneurship, history, techniques of purchasing a company, new venture initiation, and risk taking.

**MGMT 300 Human Resource Management**  
**Prerequisite:** PSYC 101  
Recognizes and evaluates the application of behavioral science approaches in the study of human resource management. Includes recruiting and selection, training, management development, performance evaluation, communication, wage and benefit programs, and management-labor relations.

**MGMT 310 Principles of Management**  
**Prerequisite:** MATH 107, MATH 105, and MATH 214, junior standing,  
Provides an in-depth identification and understanding of the relevant theories, concepts, and principles underlying the management function.

**MGMT 311 Human Behavior in Organizations**  
**Prerequisite:** PSYC 101  
Focuses on human problems of management. Presents basic ideas and theories from the behavioral sciences as they apply to human behavior in organizations. Emphasizes management solutions to problems resulting from individual-organization interaction.

**MGMT 325 Small Business Management**  
**Prerequisite:** MGMT 275 or junior standing,  
A survey course emphasizing aspects of small business management not covered elsewhere in the student’s program. Key topics include real estate, site selection, and facilities management; purchasing management, vendor relations, and inventory systems; plant security, loss control, risk and insurance management; human resources management, employee benefits, motivation, and leadership; small business market research, customer services management, and pricing. A review of other elements of the small firm’s milieu is included as a necessary contextual element (e.g., planning, accounting, financing, law).

**MGMT 330 Production and Operations Management**  
**Prerequisites:** MATH 107 or MATH 105, and MATH 214, junior standing,  
Eberly College of Business and Information Technology or approved major. A study of converting an organization’s inputs into outputs whether in goods-producing or service industries. An overview of concepts, tools, and techniques used in management of the production and operations function in organizations.

**MGMT 350 International Business**  
**Prerequisite:** MGMT 310  
Studies the international dimensions of business and the critical environmental and organizational factors that affect managerial approaches in the international arena. Focuses upon the impact of cultures, women, religions, ethnic minorities, racial minorities and country uniqueness upon international businesses. (Also offered as MKTG 350.) (Students cannot earn credit for both MGMT 350 and MKTG 350, unless the course is a D/F repeat, whereupon it will serve as a substitute for the original D/F course.)

**MGMT 400 Compensation Management**  
**Prerequisite:** MGMT 300  
Studies the policies and programs that help managers design and administer compensation systems for private and public sector enterprises. Includes
motivation theories and practice designing of compensation systems.

MGMT 401 Management Development and Training 3c-0l-3cr
Prerequisites: MGMT 300, 310
Principles, problems, and procedures in planning, organizing, directing, and controlling all aspects of training and development programs in a business enterprise. Methods of improving and development of managerial skills are emphasized.

MGMT 402 Seminar in Human Resource Management 3c-0l-3cr
Prerequisites: MGMT 300, graduating senior
An integrative course in human resource management. Considers current issues in human resource management literature and contemporary topics in the human resource management field using case studies.

MGMT 403 Small Business Planning 3c-0l-3cr
Prerequisites: COSC/IFMG 101, MGMT 325
Integrates the content of much of the business core and relates it to the business planning for small businesses and entrepreneurial efforts. Introduces the concepts that support the development of an effective business and marketing plan.

MGMT 405 Organizational Staffing 3c-0l-3cr
Prerequisites: MATH 214, MGMT 300
Focuses on the “staffing” or “employment” subsystem of the human resource management function and deals with the theoretical, technical, administrative, and legal issues involved in the recruitment, selection, placement, transfer, and promotion of individuals by organizations. Includes human resource planning, job analysis, job descriptions and specifications, recruitment and selection process, equal employment opportunity, affirmative action, reliability and validity of selection instruments and techniques, and contemporary issues in selection.

MGMT 428 Seminar in Management 3c-0l-3cr
Prerequisite: MGMT 310
An integrative course in management. Considers current literature in the field and contemporary issues in management using case studies.

MGMT 432 Business and Society 3c-0l-3cr
An overview of the interactions between business and the larger social system in which it operates. Considers the problems, solutions, and future directions of societal issues and their relationships to the business environment. Topics discussed include consumerism, the morality of advertising, self-regulation, pollution and ecology, overpopulation, government regulation, and the social and ethical responsibilities of business and industry. (Also offered as MKTG 432; may not be taken for duplicate credit.)

MGMT 434 Quality Management 3c-0l-3cr
Prerequisite: MATH 214
Emphasizes the philosophy that quality is an organization-wide phenomenon that influences every aspect of its operations. An overview of current quality management philosophies and tools and techniques for managing quality in any organization.

MGMT 437 Supply Chain Management 3c-0l-3cr
Prerequisite: MGMT 330
Deals with the design and evaluation of supply chain systems with a focus on strategic and technological issues. These concepts are developed through exploration of contemporary practices, case studies, and research, as well as analytical frameworks of supply chain management. Theoretical and practical understanding of manufacturing and service planning and control, including systems modeling, purchasing and sourcing, logistics, strategic alliances, inventory management, scheduling, etc. Manufacturing and service technologies and trends are also emphasized. Computer applications are used for understanding the interrelationships between various components of operations system.

MGMT 440 Introduction to Energy Management 3c-0l-3cr
Prerequisite: Junior standing
Introduction to the global energy markets and business with a particular emphasis on hydrocarbon based resources including petroleum, natural gas, and coal resources. Also includes exposure to nuclear, hydroelectric, solar, wind, and other “alternative” energy technologies.

MGMT 441 Business Fundamentals of Oil and Gas 3c-0l-3cr
Prerequisite: Junior standing is required; may be waived upon approval through Eberly’s Center for Leadership and Academic Student Success. Introduces oil and gas, particular emphasis on discovery, drilling, completion, and production. Discusses downstream processes; including pipeline and transportation, processing and refining, marketing and distribution. Includes history, trends, and global issues.

MGMT 451 International Management 3c-0l-3cr
Prerequisite: MGMT 310
Focuses on the complex role of multinational corporations (MNCs) in today’s global economy. Offers an in-depth perspective on planning, organization structure, managerial decision making, and human resource management in global structures and differences between MNCs and domestic organizations. Emphasizes the impact of cultures, women, religions, ethnic minorities, racial minorities and country uniqueness upon international management.

MGMT 452 Comparative Management 3c-0l-3cr
Prerequisite: MGMT 310
An intensive, comparative study of management and organization across the globe. A variety of comparative management systems, models, and theories are presented, and research findings are examined.

MGMT 454 International Competitiveness 3c-0l-3cr
Prerequisite: MGMT 310
Focuses on how nations and firms seek to improve or sustain their competitive positions in a changing global marketplace. Explores a wide range of contemporary topics such as global economic challenges, trade interdependence, the impact of cultures, women, religions, ethnic minorities, racial minorities and country uniqueness upon the competitiveness of emerging forms of businesses.

MGMT 459 Seminar in International Management 3c-0l-3cr
Prerequisites: MGMT 310, senior standing
An analysis of recent literature and developments related to global business issues such as strategic alliances, human resource management in global environments, global assignments, Japanese business system, and multinational corporations in the world economy.

MGMT 461 Business Leadership Theory 3c-0l-3cr
Prerequisite: Junior standing or instructor permission
Introduces the various leadership styles such as autocratic, laissez-faire, transformational, transactional, visionary, and others as they relate to today’s global business/corporate environment. These styles and their effectiveness as well as examples of application are discussed.

MGMT 462 Applied Business Leadership Skills 3c-0l-3cr
Prerequisites: Junior standing, MGMT 461 or instructor permission
Focuses on current leadership styles and applications in business. The effectiveness of these styles is critically examined and evaluated with a cross-culture emphasis. Advanced, innovative, and exploratory business leadership topics and their effect on the behavior of employees, cooperation, and productivity are discussed.

MGMT 472 Organizational Entrepreneurship 3c-0l-3cr
Prerequisite: MGMT 275 or 310
Explores the theories related to intrapreneurship and managing innovation and technology. Theory based but practice oriented. Through case discussions, students learn how to apply the analytical tools of strategic management and organizational theory to address important challenges faced by today’s managers.

MGMT 481 Special Topics in Management var-1-3cr
Covers advanced, innovative, or exploratory topics and disciplines within management. Specific course content developed by instructor. Credits may be applied to either required (by permission of department chair) or free electives in a student’s program.

MGMT 482 Independent Study var-1-3cr

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Prerequisite: Prior approval through advisor, faculty member, department chair, dean, and Office of the Provost
Individual research and analysis of contemporary problems and issues in a concentrated area of study under the guidance of a senior faculty member. Approval based on academic appropriateness and availability of resources.

MGMT 493 Management Internship 3c-0l-3cr
Prerequisites: Completion of all business core requirements; graduating seniors
A capstone case analysis course that gives practice in applying business theories to the solution of management problems. An analysis of how top management determines strategy and policy and influences the philosophy and character of the company. Develops a general management viewpoint that integrates the various functions of the organization.

MGMT 495 Business Policy 3c-0l-3cr
Prerequisites: Completion of all business core requirements; graduating seniors
An overview of social studies methods instruction in the middle school classroom. Includes the study of objectives, trends, patterns and principles of organization, and techniques of instruction as it relates to social studies content areas: geography, Pennsylvania history, United States and world history, economics, and civics and government. Instruction includes assessment strategies for diverse middle school learners in inclusive classroom settings.

MGID 312 Science Instruction and Assessment in Grades 4-8 3c-0l-3cr
Prerequisites: Admission into Teacher Education Step 1; BIOL 103, GEOS 101/102, SCI 105 all strongly recommended
Emphasizes science as it relates to middle school students and curriculum, including student development, and recent innovations in science teaching.

MGID 315 Classroom Management and Adolescent Development 3c-0l-3cr
Prerequisite: Junior status (60cr or more)
For middle-level education 4-8 majors to create a professional classroom management plan that supports the healthy development of all young adolescents in a diverse middle school environment. Students discuss, analyze, and apply major concepts, principles, theories, and research related to young adolescent development, including adolescents with special needs and English language learners.

MGID 321 21st-Century Literacies for Diverse Learners 3c-0l-3cr
Prerequisite: MIDL 222
Teaches the impact of technology in the field of literacy. Addresses issues and trends related to the use of technology. Includes technology integration in the curriculum and the incorporation of appropriate technologies to support diverse learners.

MGID 408 Literacy in the Content Areas 3c-0l-3cr
Prerequisite: MIDL 222
Provides preservice teachers with various strategies, techniques, and materials related to teaching reading and writing in various content areas. Current research and practical applications are interwoven to assist teachers in the development of successful methods for comprehending text in science, social studies, health, English, and mathematics. For undergraduate students as a special elective or as a required course for majors in middle-level education with a specialization in English/language arts.

MGID 422 Diagnostic and Remediial Reading 3c-0l-3cr
Prerequisite: Teacher Education Step 1
Helps educators identify causes of reading disability in middle-level learners. Methods of diagnosis, procedures, and materials for remedial work are discussed. Strategies to improve students’ content acquisition are included through both group and individual remediation. For undergraduate students seeking certification for middle-level education with a specialization in English/language Arts.

MGID 425 Methods of Teaching Language Arts in Grades 4-8 3c-0l-3cr
Prerequisite: MIDL 222 with a grade of “C” or better
Emphasizes the view that the art of communication is an interrelated process, and the task of the middle grades teacher is to integrate the language arts throughout the entire curriculum. Techniques for teaching oral and written communication skills, listening, viewing, and visually representing are presented. Other integral components include spelling instruction to meet the developmental needs of middle-level learners and methods for increasing vocabulary growth. Special emphasis is given to recent trends and research in middle grades education.

Note: Except for accounting, business education, and nonbusiness majors who have met the required prerequisites, students scheduling 300 and 400
courses are expected to have achieved junior standing as described in the Eberly College of Business and Information Technology Academic Policies.

**MKTG 320 Principles of Marketing** 3c-0l-3cr  
Prerequisite: ECON 122  
A study of those activities necessary to the design, pricing, promotion, and distribution of goods and services for use by organizations and ultimate consumers.

**MKTG 321 Consumer Behavior** 3c-0l-3cr  
Prerequisites: MKTG 320, PSYC 101  
A survey of noteworthy contributions of behavioral science and research on consumer purchasing and decision-making process, with particular attention to formal and informal influence patterns.

**MKTG 350 International Business** 3c-0l-3cr  
Prerequisite: MGMT 310  
Studies the international dimensions of business and the critical environmental and organizational factors that affect managerial approaches in the international arena. Focuses upon the impact of cultures, women, religions, ethnic minorities, racial minorities and country uniqueness upon international businesses. (Also offered as MGMT 350.) (Students cannot earn credit for both MGMT 350 and MKTG 350, unless the course is a D/F repeat, whereupon it will serve as a substitute for the original D/F course.)

**MKTG 351 Self-Marketing** 1c-0l-1cr  
Prerequisite: Junior status (as per credits earned)  
Focuses on the development of both long-term and short-term self-marketing plans and self-marketing packages. Theories of managerial marketing, professional selling, market research, and advertising applied to self-marketing to prepare students to seek internship experience.

**MKTG 420 Marketing Management** 3c-0l-3cr  
Prerequisites: MKTG 320, 321, junior standing  
An analysis of marketing and operational problems and policies involved in planning, organizing, coordinating, and controlling a total marketing program.

**MKTG 421 Marketing Research** 3c-0l-3cr  
Prerequisites: MKTG 320, MATH 214  
Nature, methods, analysis, and application of present-day marketing research techniques utilized in the solution of practical marketing problems.

**MKTG 430 International Marketing** 3c-0l-3cr  
Prerequisite: MKTG 320  
International marketing and markets are analyzed. Special consideration is given to the significance of government regulations, organization structures of export and import enterprises, and credit policies.

**MKTG 431 Business-to-Business Marketing** 3c-0l-3cr  
Prerequisite: MKTG 320  
Concerned with the major activities involved in the marketing of industrial goods and services, including the industrial marketing system, marketing information needs of the industrial firm, industrial marketing implementation and control, and channel, pricing, product, and promotional strategies for industrial goods.

**MKTG 433 Advertising** 3c-0l-3cr  
Prerequisite: MKTG 320  
An introduction to the principles, practices, and creations of advertising. Use of various media and legal, economic, social, and ethical aspects of advertising are also considered.

**MKTG 434 Marketing Logistics** 3c-0l-3cr  
Prerequisites: Junior/senior standing, MKTG 320, MGMT 330  
Focusses on planning, organizing, and controlling the marketing logistics function. In addition to the acquisition and application of management science methods, students integrate and apply previously gained knowledge to analyze and solve complex marketing logistics problems. Areas of major concentration include facility location, transportation, inventory management, and customer service.

**MKTG 435 Professional Selling and Sales Management** 3c-0l-3cr  
Prerequisite: MKTG 320  
Introduces the role and nature of modern personal selling in marketing. Theory and practice of personal selling process, sales planning, delivering sales presentations, and relationship marketing are emphasized. Basics of managing sales force including territory management, recruiting, training, and compensating sales force are also covered.

**MKTG 436 Retail Management** 3c-0l-3cr  
Prerequisite: MKTG 320, junior standing  
Introduces students to all facets of retailing, including the history of retailing, retail theories, and decision making in retailing framework.

**MKTG 437 Services Marketing** 3c-0l-3cr  
Prerequisite: MKTG 320  
Focuses on current theories and applications of marketing techniques in the fast-growing area of services in the business, government, and nonprofit sectors. Emphasizes characteristics of services and their marketing implications and formulation and implementation of marketing strategies for service firms.

**MKTG 439 Internet Marketing** 3c-0l-3cr  
Prerequisite: MKTG 320  
Presents a strategic framework for developing marketing strategies on the Internet. Extends the marketing mix framework to e-commerce using current theories and applications in online product, online pricing, web-based marketing communication, and distribution strategies. Other topics include marketing research on the Internet, electronic retailing, Internet-based customer relationship management, and legal-ethical dimensions of e-marketing. Students use Internet-based, online marketing cases.

**MKTG 440 Direct Marketing** 3c-0l-3cr  
Prerequisite: MKTG 320  
An introduction to the role and nature of direct marketing, including its current theory and practice. Topics include designing and implementing direct mail marketing, telemarketing, catalog marketing, e-mail marketing and Web/Internet based direct marketing for consumer and industrial markets. Case studies and applications are utilized. Social, public policy, and legal issues in direct marketing are also explored.

**MKTG 441 Export Marketing** 3c-0l-3cr  
Prerequisite: MKTG 320  
Students conduct an export feasibility analysis of a consumer/industrial item for a foreign market. Focus is on strategic and procedural aspects of export marketing.

**MKTG 442 Social Cause Marketing for Nonprofit Organizations** 3c-0l-3cr  
Prerequisite: MKTG 320 or instructor permission  
Prepares managers of nonprofit organizations and those whose mission is to plan and implement strategies for social change in society. Topics and activities will focus on strategic and tactical marketing approaches and planning and organizing for effective control of market performance of nonprofit organizations and programs.

**MKTG 443 New Product Design and Branding** 3c-0l-3cr  
Prerequisite: MKTG 320  
Discusses the new product design, development, branding, and launch process companies use to bring a new concept to market by satisfying customers' unmet needs. Blends the perspectives of marketing and design and the process of product creation. A step-by-step process from product planning and concept generation to commercialization and product launch planning is covered.

**MKTG 444 Green Marketing** 3c-0l-3cr  
Prerequisite: MKTG 320  
Entails a diverse perspective to understanding the impact of human consumption on the environment and development of marketing strategies to improve the human-environment interaction through creation, communication, and delivery of superior value and customer relationship management.

**MKTG 445 Social Media Marketing** 3c-0l-3cr
MLSC: Military Science
Department of Military Science
Academic Affairs Division

MLSC 101 Introduction to Military Science 2c-1l-2cr
A study of the organization of the United States Army and the role of the military in today’s society. Emphasizes the customs and traditions of the service, the Total Army concept, and the fundamentals of leadership. Includes instruction in basic military skills, land navigation, and personal nutrition and fitness. Also, see Leadership Laboratory.

MLSC 102 Fundamentals of Military Science 2c-1l-2cr
The study of the basic knowledge regarding military service and the profession of arms. Emphasizes basic military skill, first aid, and the development of leadership abilities through practical exercises. Includes instruction on offensive and defensive tactics, the Army writing style, and military briefings. Also, see Leadership Laboratory.

MLSC 191, 192, 291, 292, 391, 392, 491, 492 0c-3l-1cr
Army ROTC Physical Fitness Development I-VIII
Prerequisite: MLSC students only
Principles of individual and group physical fitness through the planning and execution of fitness training for all participating students. Primarily hands-on, performance-oriented training. Students are challenged with scheduling and executing PRT programs that ensure their future soldiers and units are prepared to successfully perform their wartime mission. This curriculum instills effective leadership that is essential to the success of future military leaders.

MLSC 203 Fundamentals of Tactical Operations, Techniques of Leadership, and Weapons Characteristics 2c-1l-2cr
Organization, techniques, resources, and capabilities involved in conducting small-unit tactical operations. Emphasizes leadership, organization, and management techniques needed to cause a group of people to accomplish specific objectives. Characteristics of military weapons systems are taught. Students serve as leaders in Leadership Labs.

MLSC 204 National Security and Fundamentals of Military Topography 2c-1l-2cr
The study of national security concepts, policies, and national decision-making process with emphasis on national resources, national will, and economic factors. Includes a study of nuclear and conventional response options. Fundamentals of military topography, including the use of military maps to determine topographic features, to conduct land navigation, and to perform terrain analysis, are covered. Also, see Leadership Laboratory.

MLSC 305 Fundamentals of Leadership and Modern Learning/Teaching Relationship 3c-1l-3cr
A study in practical application of principles of leadership/management as applied in classroom and field to include case studies in psychological, physiological, and sociological factors that affect human behavior; individual and group solution of leadership problems common to small units. Also, see Leadership Laboratory.

MLSC 306 Study of Advance Leader Planning and Execution of Modern Combat Operations 3c-1l-3cr
An analysis of leader’s role in directing and coordinating efforts of individuals and small units in execution of offensive and defensive tactical missions, to include command and control systems, the military team, and communications techniques. Also, see Leadership Laboratory.

MLSC 407 Management of the Military Complex to Include Fundamentals of Military and International Law 3c-1l-3cr
The study of the various managerial elements needed to effectively control a military organization and the techniques used to accomplish these functions. Studies in military law and international law prepare the students for their legal responsibilities. Also, see Leadership Laboratory.

MLSC 408 Seminar in Military Analysis and Management 3c-1l-3cr
Contemporary analysis of use of military in world affairs to include importance of strategic mobility and neutralization of insurgent movements. Selected management problems and situations are presented as they relate to military justice, administration, and obligation and responsibilities of an officer. Also, see Leadership Laboratory.
physical and mental, and for development of teamwork and leadership.

**Summer Camp**  var-0cr
Attend a six-week summer camp upon completion of the first year of the Advanced Course. Time at camp is devoted to practical application of principles and theories taught during the preceding school year. While at camp, each student receives lodging, subsistence, uniforms, medical care, reimbursement for travel, and pay in amount of one-half pay of second lieutenant per month.

**MUHI: Music History**
**Department of Music**
**College of Fine Arts**

**MUHI 101 Introduction to Music**  3c-0l-3cr
A broad introduction to the technical, artistic, historical, social, and cultural dimensions of music, drawing on musical traditions from around the world. Students learn to recognize basic ways in which music is put together, communicates meaning to its listeners, and enriches many aspects of life. Through attendance at concerts, students gain familiarity with musical events in their community.

**MUHI 102 Music and Literature Survey**  3c-0l-3cr
**Prerequisite:** Music major or instructor permission
Introduces students to a broad spectrum of music and literature of various genres through a careful analysis of poetry, fiction, and drama, both in the original format and in a variety of musical settings. Includes music and literature of various time periods, nationalities, and minorities, including works by women and works from non-Western musical and literary traditions. Designed for music majors and others who have a substantial knowledge of music, this course fulfills both the Liberal Studies, Fine Arts, and Humanities Literature requirements for music majors.

**MUHI 223 Musical Cultures from Around the World**  3c-0l-3cr
Explores a variety of world cultures through their music. Focuses on music as a product and reflection of culture as well as an aesthetic art form. Introduces the basic elements of music, identifies the musical styles of different cultures, and analyzes how music communicates and reflects cultural values which enrich the lives of people in these communities. Provides concert attendance opportunities to gain familiarity with musical events in communities and reflect on the role of the individual in these musical cultures.

**MUHI 281 Special Topics**  var-1-3cr
**Prerequisite:** As appropriate to course content
Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 281 are offered primarily for lower-level undergraduate students.

**MUHI 301 Music History I**  3c-0l-3cr
**Prerequisites:** MUHI 102, ENGL 101, 202, HIST 196 or 197 or 198
Survey of the musicians, cultural settings, aesthetics, musical styles, and repertoires of Western Europe from Antiquity to the 18th century. Introduces research methods in music history.

**MUHI 302 Music History II**  3c-0l-3cr
**Prerequisites:** MUHI 102, ENGL 101, 202, HIST 196 or 197 or 198
Survey of the musicians, cultural settings, aesthetics, musical styles, and repertoires of Europe and the United States from the late 18th century to the present. Also focuses on developing research writing skill in music history.

**MUHI 333 History of Popular Music Since 1945**  3c-0l-3cr
Survey of the musical figures, styles, and cultures of popular music in the US and the UK since 1945.

**MUHI 420 Music Since 1900**  3c-0l-3cr
**Prerequisites:** MUHI 302
Examines selected trends in European and American art music since 1900.

**MUHI 421 Topics in American Music**  3c-0l-3cr
**Prerequisites:** MUHI 301, 302
Emphasizes reading, discussion, and writing on specialized topics in the history of American music. The topic varies from semester to semester and are announced before registration. Addresses such topics as Art Music in American Culture, Music and the Moving Image, Popular Music, Music and Drama, or Virtuoso Performers in America.

**MUHI 425 19th-Century Music**  3c-0l-3cr
**Prerequisites:** MUHI 301, 302
Examines the musical and historical aspects of some representative works in four significant repertoires of 19th-century music: songs, characteristic works for piano, opera, and symphonies. Further examines how the works intersect with a number of social, cultural, aesthetic, political, and economic themes that pervade the century, such as the rise of the middle class, city cultures, the domestic music market, the invention of “the folk,” nationalism and exoticism, social and political revolutions, idealism and its successors, and the virtuoso.

**MUSIC: Music**
**Department of Music**
**College of Fine Arts**

**MUSIC 110 Fundamentals of Theory**  3c-0l-3cr
Rudiments of materials; harmonic, melodic, rhythmic, and basic formal procedures of the common practice period including pitch reading, interval construction, scales, and modes.

**MUSIC 111 Theory Skills I**  0c-3l-2cr
**Prerequisite:** Music major or instructor permission
Develops aural skills through dictation and interpretation of written music by sight-singing. Taken in conjunction with Theory I.

**MUSIC 112 Theory Skills II**  0c-3l-2cr
**Prerequisite:** MUSIC 111 with a grade of “C” or better or Satisfactory
Continues development of aural skills through dictation, sight-singing, keyboard skills, and improvisation. Taken in conjunction with Theory II.

**MUSIC 113 Theory I Practicum**  0c-0l-1cr
**Prerequisite:** Music major or instructor permission
Reinforces the core concepts of MUSIC 115 via recitation, written coursework, guided listening, and musicianship drills. Students who fail the department’s undergraduate diagnostic exam must complete MUSIC 113 in conjunction with MUSIC 115.

**MUSIC 114 Analysis of Popular Music**  3c-0l-3cr
Introduces active listening and the materials of Western music via contemporary popular repertoire. Covers notation, basic pitch, and rhythm constructs, and analysis with and without score, as well as aspects of songwriting, production, and recording.

**MUSIC 115 Theory I**  3c-0l-3cr
**Prerequisite:** Music major or instructor permission; concurrent enrollment in MUSIC 113 or score of at least 70 percent on the departmental theory placement exam
The study of the harmonic, melodic, and formal devices of the common practice period, from simple diatonic chords through seventh chords.

**MUSIC 116 Theory II**  3c-0l-3cr
**Prerequisite:** MUSIC 115, with a grade of “C” or better or Satisfactory
The study of the harmonic, melodic, and formal devices of the common practice period, from simple diatonic chords through secondary dominants. Introduces basic music forms.

**MUSIC 120 Brass Ensemble**  0c-2l-0/1cr
**Prerequisite:** Music major or instructor permission
A chamber ensemble experience for brass performers.

**MUSIC 121 Chamber Singers**  0c-3l-0/1cr
**Prerequisite:** Music major or instructor permission
Performs a broad spectrum from early Gregorian chant to contemporary rock cantatas.

**MUSIC 122 University Chorale**  0c-3l-0/1cr
**Prerequisite:** Music major or instructor permission
Studies and performs masterworks from the choral literature.

**MUSC 123 Symphony Band** 0c-3l-0/1cr
**Prerequisite:** Music major or instructor permission
A large ensemble experience for woodwind, brass, and percussion performers.

**MUSC 124 Concert Band** 0c-3l-0/1cr
A large ensemble experience for woodwind, brass, and percussion performers.

**MUSC 125 Marching Band** 0c-6l-0/1cr
**MUSC 126 Music Theatre** 0c-6l-0/1cr
**Prerequisite:** Music major or instructor permission
The study and performance of a wide variety of musical theatre venues from opera to Broadway.

**MUSC 127 Percussion Ensemble** 0c-4l-0/1cr
**Prerequisite:** Music major or instructor permission
The student performs pieces ranging from traditional to contemporary, novelty to transcriptions, and marimba ensembles to world music.

**MUSC 128 Opera/Musical in Production Ensemble** 0c-3l-0/1cr
**Prerequisites:** Successful audition and instructor permission
An opportunity with academic credit to make significant contributions to campus opera and musical theatre productions, augmenting music course work in the areas of musical training and performance experience for the singer-actor and the pit orchestra musician. Course work consists of rehearsal and performance of a full-length mainstage opera or musical, culminating in four to eight public performances. Singers in the production ensemble learn performance techniques, characterization skill, and physical coordination and freedom of movement on stage. Instrumentalists in the pit orchestra learn performance and ensemble techniques, including challenging reading skills and the ability to interpret a wide variety of musical styles. This is a repeatable course that meets Music Department ensemble requirements.

**MUSC 129 University Symphony Orchestra** 0c-5l-0/1cr
**Prerequisite:** Music major or instructor permission
Provides experience performing standard orchestral repertoire as well as new and unusual works for orchestra.

**MUSC 130 String Ensemble** 0c-2l-0/1cr
**Prerequisite:** Music major or instructor permission
Provides string players an experience with music from Baroque works of Vivaldi, Handel, and Bach to the new and experimental.

**MUSC 131 University Wind Ensemble** 0c-3l-0/1cr
**Prerequisite:** Music major or instructor permission
A large ensemble experience for woodwind, brass, and percussion performers.

**MUSC 132 Treble or Bass Chorus** var-0-1cr
Provides choral ensemble experience for vocalists with treble or bass voices, respectively.

**MUSC 133 Woodwind Ensemble** 0c-2l-0/1cr
**Prerequisite:** Music major or instructor permission
A chamber ensemble experience for woodwind performers.

**MUSC 134 University Chorus** 0c-3l-0/1cr
A large, mixed chorus that performs major works each semester.

**MUSC 135 Jazz Ensemble** 0c-3l-0/1cr
**Prerequisite:** Music major or instructor permission
The study and performance of all styles of jazz, including swing, Latin, rock fusion, and other contemporary idioms.

**MUSC 136 Advanced Jazz Ensemble** 0c-3l-0/1cr
**Prerequisite:** Music major or instructor permission
The student performs a mixture of jazz styles from Latin to swing, ballads to fusion.

**MUSC 137 Piano Accompanying** 0c-1l-0/1cr
Piano accompanying may be scheduled by qualified (successful audition) pianists from the Music Department in partial fulfillment of ensemble requirements. May be repeated for credit. Pianists registered for this course will provide accompaniments for Music Department students in solo vocal or instrumental performances in area and departmental recitals and/or in voice and instrumental lessons. Registration must be approved by a designated Music Department faculty member from the piano area.

**MUSC 138 Vocal Repertoire Ensemble** 0c-2l-0/1cr
**Prerequisites:** Music major with a successful audition and instructor permission
Explores the performance practices of various styles and genres of classical vocal music, augmenting course work in the areas of applied voice training and performance experience for vocal musicians in a master class format. Features a different vocal style/genre/theme each semester. Course work for the ensemble consists of performance and coaching of assigned music concentrating on historically informed performance practice, as well as composer study and style profiles. Possible topics include Sacred Vocal Music, English Renaissance and Baroque Vocal Music, Vocal Music of Franz Schubert, Vocal Music of the American 20th Century, Vocal Music for the High School Students, etc. This is a repeatable course that meets the Music Department’s ensemble requirements.

**MUSC 139 Piano Ensemble** 1c-1l-0/1cr
**Prerequisites:** Music major, instructor permission
The study and performance of repertoire for piano in ensemble with other pianists, vocalists, and instrumentalists. Special considerations for accompanying and collaborating in chamber music are discussed and practiced.

**MUSC 140 Popular Music Ensemble** 0c-3l-1cr
Laboratory for performance and creative expression in all popular musical styles. Includes individual and group projects based on their abilities, artistic interests, and the makeup of the ensemble. Some background with songwriting, voice, or a musical instrument is encouraged, but the course is open to any interested student. May be repeated for credit.

**MUSC 151 Class Voice I** 1c-1l-1cr
**Prerequisite:** Music major or instructor permission
For non-voice and music education majors. Development of correct vocal production techniques through individual and group performance in class. Use of the voice as a tool for theory skills and for eventual use in the music classroom.

**MUSC 152 Class Voice II** 1c-1l-1cr
A continuation of Class Voice I. Resumes development of correct vocal production techniques through performance.

**MUSC 153 Class Piano I** 1c-1l-1cr
**Prerequisite:** Music major or instructor permission
For music majors with no significant background in piano who need to develop functional keyboard skills. Emphasizes scales, chord progressions, and sight-reading. Harmonizing melodies and playing simple accompaniments are included in this skill-oriented course.

**MUSC 154 Class Piano II** 1c-1l-1cr
A continuation of Class Piano I; for music majors.

**MUSC 155 Class Strings I** 1c-1l-1cr
**Prerequisite:** Music major or instructor permission
For music education majors who will develop rudimentary playing techniques sufficient to initiate instruction for beginning students. Emphasizes correct playing positions and tone production for violin, viola, cello, and double bass.

**MUSC 157 Class Percussion I** 1c-1l-1cr
**Prerequisite:** Music major or instructor permission
A practical introduction to the various instruments of the percussion family. Students demonstrate correct playing techniques and develop a resource file containing information on percussion instruments and instructional materials as needed by the school music teacher.

**MUSC 159 Class Brass I** 1c-1l-1cr
Prerequisite: Music major or instructor permission
For music education majors who will demonstrate rudimentary playing techniques and tone production skills to initiate beginning instruction. Students develop playing on trumpet or French horn and trombone, euphonium or tuba.

MUSC 161 Class Woodwinds I 1c-1l-1cr
Prerequisite: Music major or instructor permission
For music education majors who will acquire correct tone production and playing techniques necessary to initiate beginning instruction. Students demonstrate skills with flute, clarinet, saxophone, and oboe or bassoon.

MUSC 180 Technology for General Musicianship 2c-1l-2cr
Prerequisite: Music major enrolled in BA or BFA program or instructor permission
An introduction to the fundamental concepts of music technology, including the basics of digital audio sound recording, music notation, MIDI, mixing and sound synthesis, and the construction and use of web pages in a music career.

MUSC 190 Introduction to Music Education 1c-1l-1cr
Introduces foundational concepts and practices in music education.

MUSC 211 Theory Skills III 0c-3l-2cr
Prerequisite: MUSC 112, with a grade of “C” or better or Satisfactory
Further development of aural skills through dictation, sight singing, keyboard skills, and improvisation. Taken in conjunction with Theory III.

MUSC 212 Theory Skills IV 0c-3l-2cr
Prerequisites: MUSC 211 and 154 or APMU 151, with a grade of “C” or better or Satisfactory
Culmination of the development of aural and keyboard skills including sight-reading, performance, and improvisation. Taken in conjunction with Theory IV.

MUSC 215 Theory III 3c-0l-3cr
Prerequisites: MUSC 115, 116, with a grade of “C” or better or Satisfactory
An extension of the techniques of the 18th and 19th centuries to include modulation, altered chords, more advanced musical forms, and contrapuntal procedures.

MUSC 216 Theory IV 3c-0l-3cr
Prerequisites: MUSC 115, 116, 215, with a grade of “C” or better or Satisfactory
An extension of the techniques of the 18th and 19th centuries to include modulation, altered chords, more advanced musical forms, and contrapuntal procedures. Theory IV concentrates largely on music and materials of the present century.

MUSC 217 Keyboard Harmony 3c-0l-3cr
Prerequisites: MUSC 212, 216, and the equivalent of a B Jury, or instructor permission
A keyboard approach to understanding harmony observed during the common practice period. Study through the weekly performance and realization of various exercises includes figured bass, score reading (works for small and large orchestra, playing by ear, and applied theoretical analysis. Projects include creating a reduced, four-part score from one movement of a large orchestral work and a transcription of one movement from a large orchestral work.

MUSC 219 Music Education Practicum Ensemble var-0-1cr
Prerequisite: At least one of the following must be completed before enrollment: MUSC 151, 155, 157, 159, or 161, or instructor permission
An opportunity for preservice music teachers or other interested persons to continue to gain experience in a music ensemble setting either in the role of performer or conductor. For music majors or approved non-majors, this is an opportunity for students to gain additional experience as a performer in a low-stress environment. For music education majors who have reached Step 1, this course offers the opportunity for students to gain hands-on experience as an ensemble conductor. Both performers and conductors gain an awareness of age-appropriate student music literature used in public school music programs.

MUSC 240 Technology in the Music Classroom 2c-1l-2cr
Introduces the technology resources available for use in the music classroom and the instructional technologies appropriate for application in K-12 settings including applications for students with disabilities. Students are exposed to a variety of media and have the opportunity to gain familiarity in their use. Emphasizes the use of the computer in the music classroom, web-based technologies, and music software.

MUSC 281 Special Topics var-1-3cr
Prerequisite: As appropriate to course content
Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 281 are offered primarily for lower-level undergraduate students.

MUSC 311 Fundamentals of Conducting 3c-0l-2cr
Prerequisite: Music major or instructor permission
Emphasizes fundamental physical skills of conducting process; various beat patterns are mastered and elementary score reading and interpretation are considered.

MUSC 312 Choral Conducting 3c-0l-2cr
Prerequisite: MUSC 311
An opportunity to apply basic conducting techniques to choral music. Each student conducts the class in standard choral works. Includes survey of suitable literature, organizational problems, voice testing, rehearsal techniques, program building, interpretation, and diction.

MUSC 313 Instrumental Conducting 3c-0l-2cr
Prerequisite: MUSC 311
An opportunity to apply basic conducting skills to various instrumental ensembles. Includes a survey of suitable literature, organizational problems, audition procedures, rehearsal techniques, program building, and interpretation.

MUSC 315 Theory V 3c-0l-3cr
Prerequisite: MUSC 216
Many harmonic idioms of past half-century are considered, such as comparative analysis of dissonance; polytonality, polyrhythms; atonalism and 12-tone system; and microtonalism. Original writing in these styles required.

MUSC 331 Elementary Methods 2c-1l-2cr
Prerequisite: Admission to Step 1 of the 3-Step Process
Familiarizes students with contemporary music education methods for the elementary general music classroom. Includes teaching and learning strategies for developing singing, moving, listening, creating, and playing classroom percussion, recorders, and guitar. Specific focus on child development, characteristics of special learners, curriculum planning, and diverse musical materials. Includes three classroom observations in the field.

MUSC 333 Instrumental Methods 2c-1l-2cr
Prerequisite: Admission to Step 1 of the 3-Step Process
Familiarizes students with the instrumental music teaching process including traditional and innovative methodology; development of beliefs and values; communication, motivation, and reinforcement; curriculum development, planning, modeling, sequencing, and assessment; recruiting and retention; teaching techniques for rehearsals for the art of lesson giving and for confronting the main issues of rhythm and intonation; development of aural/visual discrimination skills; improvisation; aptitude tests and testing; classroom control; literature; and equipment.

MUSC 335 Music for Students with Disabilities in Inclusive Settings 1c-1l-1cr
Prerequisite: Admission to Step 1 of the 3-Step Process
Corequisite: EDUC 242
Develops music education skills, techniques, and materials for students with disabilities and special needs within the music classroom setting. Legal rights of students with special needs are stressed with regard to opportunities to participate in music activities and ensembles. Must be elected concurrently with EDUC 242. Includes field experiences in the music program.
classroom during the EDUC 242 observation period.

**MUSC 337 General/Choral Methods** 2c-1l-2cr  
Prerequisites: MUSC 212, admission to Step 1 of the 3-Step Process  
A pedagogical overview of music methods related to general and choral music curricula for the middle school, junior high school, and high school. Emphasizes the complex factors of adolescent behavior and physiology, administrative issues, performance expectations, and conceptually based learning that influence music teaching at this level.

**MUSC 351 Italian Diction and Literature** 1c-1l-1cr  
A laboratory course in Italian diction for first-semester voice majors. Meets for two hours per week. Emphasizes pronunciation for the stage and the International Phonetic Alphabet. Students demonstrate skills by singing Italian solo song literature and operatic repertoire of the 17th and 18th centuries.

**MUSC 352 French Diction and Literature** 1c-1l-1cr  
A laboratory course in French diction for third- or fourth-semester voice majors. Meets for two hours per week. Emphasizes pronunciation for the stage and the International Phonetic Alphabet. Students demonstrate skills by singing French solo song literature and operatic repertoire.

**MUSC 354 German Diction and Literature** 1c-1l-1cr  
A laboratory course in German diction for second-semester voice majors. Meets for two hours per week. Emphasizes pronunciation for the stage and the International Phonetic Alphabet. Students demonstrate skills by singing German solo and song literature and operatic repertoire.

**MUSC 403 Practicum in String Pedagogy** 1c-0l-0/1cr  
Prerequisites: FBI, Act 34, and Act 151 clearances, instructor permission  
Practical applications of string methods and string pedagogy techniques for instruction in hands-on teaching experiences in individual and ensemble settings. The emphasis is on sequential instruction and reflective assessment of teaching techniques and goals.

**MUSC 405 Piano Pedagogy** 3c-0l-3cr  
Prerequisites: Junior standing in piano and a piano major or minor  
A survey of current and significant past developments in teaching of piano, both privately and in small and large classes. The various piano methods are analyzed, compared, criticized, and adapted to each individual’s use.

**MUSC 406 Vocal Pedagogy** 3c-0l-3cr  
Prerequisite: APMU 255 or instructor permission  
Introduces vocal anatomy, the acoustics of singing, and various methods of vocal instruction. Applies pedagogical principles through mock teaching and teaching observation, and students keep a teaching journal.

**MUSC 408 Marching Band Techniques** 2c-0l-2cr  
Considers building a band show; alignment of ranks and files; development of a standard pace of 5 to 5 and 8 to 4; selection of music; instrumentation; techniques of developing morale; and fundamentals of uniform design.

**MUSC 417 Orchestration** 3c-0l-3cr  
Prerequisite: MUSC 216  
All instruments of orchestra are studied from the viewpoint of their contribution to the total sound of ensemble. Ranges and timbres are considered, as well as actual arranging of selected music.

**MUSC 420 Professional Practices** 2c-0l-2cr  
Prerequisite: Junior standing  
An overview of skills needed to be a successful, versatile, and employable musician in the 21st century, includes curriculum vitae preparation, self-promotion and marketing, finding and creating opportunities, communication skills, grant-writing and resource acquisition, and developing a professional network. Primarily for music majors and taught in a seminar format with guest lectures.

**MUSC 475 Music Lab** var-0cr  
All music majors must attend eight on-campus (unless preapproved) recitals and meetings per semester and all departmental recitals, as well as all recitals for their respective performance areas.

**MUSC 481 Special Topics** 3c-0l-3cr  
Prerequisite: As appropriate to course content  
May provide an in-depth study of a narrowly defined area of the discipline. Subject matter changes with repeated offering of the course. May be repeated for credit.

**MUSC 482 Independent Study** var-1-6cr  
Prerequisite: Prior approval through advisor, faculty member, department chair, dean, and Office of the Provost  
Students with interest in independent study of a topic not offered in the curriculum may propose a plan of study in conjunction with a faculty member. Approval is based on academic appropriateness and availability of resources.

**MUSC 493 Internship in Music** var-1-6cr  
For music majors who wish to receive practical experience working with people in music or in areas related to music.

**NMTT: Nanomanufacturing Technology**  
Department of Physics  
College of Natural Sciences and Mathematics

**NMTT 311 Materials, Safety, and Equipment Overview for Nanofabrication** 3c-2l-3cr  
Corequisite: NMTT 312  
Focuses on cleanroom protocol and provides an overview of the materials, safety, and equipment issues encountered in the practice of “top down” and “bottom up” nanofabrication.

**NMTT 312 Basic Nanofabrication Processes** 3c-2l-3cr  
Corequisite: NMTT 311  
A hands-on introduction to the processing sequences involved in “top down,” “bottom up,” and hybrid nanofabrication. Focuses on a step-by-step description of the processes integrated that need to be fabricated devices and structures.

**NMTT 313 Thin Films in Nanofabrication** 3c-2l-3cr  
Corequisites: NMTT 311 and 312  
Provides a detailed understanding of the use and processing of thin film materials in nanofabrication. Emphasizes the understanding and operation of the state-of-the-art deposition and etching processing equipment in the Penn State Nanofabrication Facility cleanrooms.

**NMTT 314 Lithography and Patterning Techniques** 3c-2l-3cr  
Corequisite: NMTT 311  
Provides knowledge and hands-on treatment to all aspects of advanced lithography and pattern generation processes, covering topics from substrate preparation to exposure using pattern transfer equipment such as stamping and embossing, ion and e-beam, and optical contact and stepper.

**NMTT 315 Materials Modifications in Nanofabrication** 3c-2l-3cr  
Corequisite: NMTT 311  
Provides detailed knowledge of the processing steps used in modifying material properties in nanofabrication, including molecular functionalization, cross-linking, metal silicidation, material oxidation, material nitridation, barrier materials, alloying, stress control, annealing, and doping.

**NMTT 316 Characterization, Packaging, and Testing of Nanofabrication Structures** 3c-2l-3cr  
Corequisite: NMTT 311  
Addresses the issues and examines a variety of techniques and measurements essential for testing and controlling the final device fabrication, performance, and packaging.

**NURS: Nursing**  
Department of Nursing and Allied Health Professions  
College of Health and Human Services

**NURS 101 Disaster Awareness** 1c-0l-1cr  
A basic understanding of the essentials of disaster planning, responding to mass casualty incidents, and postdisaster restoration of basic public health. Introduces a basic overview of health issues caused by biological, chemical,
explosive, and natural disasters.

NURS 102 Disaster Preparedness and Related Health Issues 3c-0l-3cr
Learn to prepare against common types of terrorist threats, technical hazards, and natural disasters. Focuses on developing and maintaining emergency plans before, during, and after a disaster. Addresses health issues and preparation of families and communities for disasters.

NURS 143 Healthy People—Promoting Wellness 3c-0l-3cr
An introduction to the pathway of health and wellness through contributions to one’s environment and community. The interconnectedness of self, others, nature, and society on one’s health and wellness is emphasized. Students are guided through decision-making processes regarding life choices to maximize personal well-being. A personal wellness plan that incorporates aspects of physical and social health is developed using the Healthy People framework. Completion of NURS 143 fulfills the Liberal Studies Dimensions of Wellness requirement. Other 143 courses will also fulfill this requirement, and any of these courses may be substituted for each other and may be used interchangeably for D/F repeats but may not be counted for duplicate credit.

NURS 202 Foundations of Child Health 3c-0l-3cr
Focuses on conditions that affect the health of children. An overview of the structure and function of selected body systems. Emphasizes the development of each system during infancy and childhood. The impact of common acute and chronic diseases on children is incorporated. Health promotion concepts are addressed.

NURS 211 Fundamentals I Clinical 0c-3l-1cr
Prerequisites: Nursing majors only, BIOL 150 grade of “C” or better; CHEM 101, 102; sophomore standing; or permission
Corequisite: NURS 212 or permission
Presents concepts and basic nursing skills fundamental to the safe practice of professional nursing. A foundation for students to build their professional knowledge base as well as develop interpersonal and psychomotor skills in a variety of settings with a focus on patient-centered care for adults and older adults.

NURS 212 Fundamentals I Theory 3c-0l-3cr
Prerequisites: Nursing majors only, BIOL 150 grade of “C” or better; CHEM 101, 102; sophomore standing; or permission
Corequisite: NURS 211 or permission
An introduction to the nursing discipline, nursing process, professional standards, and values that are foundational to practice. An overview of the various levels of health care services and the professional nursing role. Concepts for effective nurse-client relationships are examined including therapeutic communication, evidence-based nursing interventions, quality patient-centered care, and safe nursing practice.

NURS 213 Fundamentals II Clinical 0c-3l-1cr
Prerequisites: NURS 211, 212 with grades of “C” or better
Prerequisite or Corequisite: BIOL 240
Corequisites: NURS 214, 236; or permission
Builds on the Fundamentals I Clinical course. Opportunities for students to continue to develop professional knowledge and skills with diverse individuals and families in a variety of settings with a focus on adults and older adults. Emphasizes developing the ability to perform comprehensive health assessments, use therapeutic communication, and provide basic nursing skills while promoting safe and quality health care.

NURS 214 Health Assessment 3c-0l-3cr
Prerequisites: NURS 211, 212 with grades of “C” or better
Prerequisite or Corequisite: BIOL 240 with a grade of “C” or better
Corequisites: NURS 213, 236; or permission
An introduction to basic health assessment for the purpose of determining a client’s health status. Students learn to conduct a comprehensive health history and physical assessment on adults and older adults. Incorporates concepts of human anatomy and physiology in the assessment of clients. Identifies appropriate nursing interventions to promote health.

NURS 236 Fundamentals II Theory 3c-0l-3cr
Prerequisites: NURS 211, 212 with grades of “C” or better
Prerequisite or Corequisite: BIOL 240 with a grade of “C” or better
Corequisites: NURS 213, 214; or permission
An introduction to fundamental nursing concepts that apply to the practice of professional nursing. Topics include elements of holistic care, promotion of psychosocial and physiologic health, and introduction to medication administration in nursing practice. Provides physiological rationale for nursing interventions with a focus on knowledge and skills to ensure safe delivery of nursing care.

NURS 306 Problem Solving in Nursing 3c-0l-3cr
Prerequisites: NURS 213, 214, and 236 or special permission
Opportunities to recognize and develop intervention strategies for problem solving in clinical nursing situations. Emphasizes developing application and analysis skills required for success in the Nursing program.

NURS 311 Introduction to Nursing Informatics 2c-0l-2cr
Prerequisites: NURS 211, 212, 213, 214, 236
An introduction to basic nursing informatics for the purpose of role development of the emerging contemporary nurse. Incorporates concepts of metastructures and tools used in the workflow process. Examines legislative, cultural, and safety aspects. Discusses current and future applications emerging from the science of informatics.

NURS 312 Professional Nursing 2c-0l-2cr
Prerequisite: ENGL 202
Corequisites: NURS 330 and 331; or 332 and 333; or 336 and 337
Examines values, cultural issues, code of ethics, global and national health care policy, regulatory environments, professional standards and legal frameworks that impact health care decisions, determine professional conduct, and guide interactions with clients, families, and health care team members. Utilizes ethical decision-making frameworks to guide professional nursing practice. Focuses on developing the necessary skills to engage in scholarly writings and presentation.

NURS 314 Health Policy and Law 3c-0l-3cr
Focuses on understanding the evolution of healthcare policy, health law, and federal and state regulation of healthcare financing programs. Introduces healthcare policy making; critical health policy issues; legislative, regulatory, and legal challenges; and legislative and political processes that impact the healthcare delivery system in the United States. (Cross-listed as ELR 314.)

NURS 316 Evidence-Based Practice in Nursing 3c-0l-3cr
Prerequisites: ENGL 202, MATH 217
Corequisites: NURS 330 and 331; or 332 and 333; or 336 and 337
Focuses on understanding and critiquing nursing research. Emphasizes understanding the research process and utilization of current evidence in nursing practice. Focuses on developing the necessary skills to engage in scholarly writing and presentation.

NURS 330 Care of the Child and Family 2c-0l-2cr
Prerequisites: FDNT 212, PSYC 310, grades of “C” or better in BIOL 240, 241, NURS 213, 214, 236; or permission
Corequisites: NURS 331, 312 or 316; or permission
Focuses on knowledge essential to providing nursing care to the child and family. Emphasizes prevention, recognition, implementation of the nursing process, and appropriate interventions for safe care of the child. Applies evidence-based practice for the care of children and families.

NURS 331 Care of the Child and Family Clinical 0c-6l-2cr
Prerequisites: FDNT 212, PSYC 310, grades of “C” or better in BIOL 240, 241, NURS 213, 214, 236; or permission
Corequisites: NURS 330, 312 or 316; or permission
Opportunities to apply the nursing process with children and their families in a variety of settings and demonstrate nursing professionalism in their interactions with individuals, families, and community. Increases students’ ability to perform comprehensive health assessments and collaborate with members of the health care team to identify problems, plan, intervene, and evaluate care for children and families. Emphasizes safe, comprehensive,
NURS 332 Maternal-Neonatal Health  
**Prerequisites:** FDNT 212, PSYC 310; grades of “C” or better in BIOL 240, 241, NURS 213, 214, 236; or permission  
**Corequisites:** NURS 333, 312 or 316; or permission  
Focuses on knowledge essential to providing nursing care for pregnant women, neonates, and postpartum patients within a family context. Emphasizes implementation of the nursing process and appropriate interventions for safe care. Applies evidence-based practice for the care of pregnant women, neonates, and postpartum patients.

NURS 333 Maternal-Neonatal Clinical  
**Prerequisites:** FDNT 212, PSYC 310; grades of “C” or better in BIOL 240, 241, NURS 213, 214, 236; or permission  
**Corequisites:** NURS 332, 312 or 316; or permission  
Opportunities to apply the nursing process with pregnant women, neonates, postpartum patients, and their families in a variety of settings and demonstrate nursing professionalism in their interactions with individuals, families, and community. Increases students’ ability to perform comprehensive health assessments and collaborate with members of the health care team to identify problems, plan, intervene, and evaluate care for pregnant women, neonates, postpartum patients, and their families. Emphasizes safe, patient-centered, comprehensive, evidence-based nursing care, and professional standards of practice.

NURS 334 Transitions in Professional Nursing  
**Prerequisites:** Licensed practical nurse  
Facilitates the transition of the LPN to the professional nurse role. Explores the dynamic nature of health and its impact on the practice of nursing. Analyzes nursing theories, concepts, and issues related to nursing practice. Explores linkages among theory, research, and practice for relevance and utility.

NURS 336 Adult Health I  
**Prerequisites:** FDNT 212, PSYC 310; grades of “C” or better in BIOL 240, 241, NURS 213, 214, 236; or permission  
**Corequisites:** NURS 337, 312 or 316; or permission  
Introduces disease processes and prevention, collaborative care, and implementation of the nursing process for adults and older adults. Enhances student knowledge regarding assessing human response to changing health and applying the appropriate nursing intervention for safe, patient-centered care. Applies evidence-based practice for the care of adults and older adults.

NURS 337 Adult Health I Clinical  
**Prerequisites:** FDNT 212, PSYC 310; grades of “C” or better in BIOL 240, 241, NURS 213, 214, 236; or permission  
**Corequisites:** NURS 336, 312 or 316; or permission  
Opportunities to apply the nursing process to adults and older adults in a variety of settings and demonstrate nursing professionalism in their interactions with individuals, families, and community. Increases students’ ability to perform comprehensive health assessments and collaborate with members of the health care team to identify problems, plan, intervene, and evaluate care for adults and older adults. Emphasizes safe, patient-centered, comprehensive, evidence-based nursing care, and professional standards of practice.

NURS 410 Health Promotion and Social Issues  
**Prerequisites:** 6cr in Liberal Studies-Social Sciences and 3cr in Liberal Studies-Philosophy or Religious Studies  
An introduction to current social issues, models, and evidence-based research in health promotion, disease prevention, and population health relevant to individuals and communities. Explores individual and population health promotion assessment, health behavior interventions, and disease prevention in diverse populations to improve patient and population health outcomes. Develops and implements an intervention and prevention plan which addresses individual and population health problems. Critiques research and evidence-based practice relevant to population health.

NURS 412 Nursing Management  
**Prerequisites:** NURS 312, 316; grades of “C” or better in NURS 330, 331, 332, 333, 336, 337; or permission  
**Corequisites:** NURS 436, 437, 440  
Emphasizes leadership, communication and relationship building, knowledge of the health care environment, and resource management. Discusses leadership/management skills and processes. Examines the role of designer/manager/coordinator of care in professional nursing in depth.
and/or complex health problems and with a patient-centered approach to nursing care. Emphasizes the relationships among clinical manifestations of disease states, treatment, cultural influences, and associated nursing responsibilities. Focuses on utilizing students’ knowledge base of diagnostics, pharmacology, interventions, and rehabilitation needs through critical reasoning to plan the care of patients with critical and/or complex health problems. Emphasizes the incorporation of evidence-based practice interventions into nursing practice.

NURS 437 Adult Health II Clinical 0c-7.5l-2.5cr
Prerequisites: NURS 312, 316; grades of “C” or better in NURS 330, 331, 332, 333, 336, 337; or permission
Corequisites: NURS 412, 436, 440; or permission
Opportunities for clinical practice as a provider of care for critical and/or complex, acutely ill clients in a variety of settings. Places emphasis on leadership, management, and providing safe, comprehensive, evidence-based nursing care. Utilizes patient care technologies, information systems, and communication devices that support safe, patient-centered nursing care.

NURS 440 Nursing Management Clinical 0c-7.5l-2.5cr
Prerequisites: NURS 312, 316; grades of “C” or better in NURS 330, 331, 332, 333, 336, 337; or permission
Corequisites: NURS 412, 436, 437; or permission
An opportunity for students to incorporate delegation and prioritization skills when caring for multiple patients in an adult health acute care setting. Emphasizes leadership skills and management principles to ensure delivery of high-quality, evidence-based, cost-effective care.

NURS 450 A Cognitive Approach to Clinical Problem Solving 3c-0l-3cr
Prerequisites: NURS 312, 316; grades of “C” or better in NURS 330, 331, 332, 333, 336, 337; or permission
Corequisites: NURS 431 or 440 or grades of “C” or better in NURS 330, 331, 332, grades of “C” or better in NURS 331, 332, 333, 336, 337; or permission
Focuses on advanced clinical problem-solving and decision-making skills needed by professional nurses. Factors that influence clinical problem solving are examined to facilitate higher-level thinking in simulated clinical situations.

NURS 455 Health Care Informatics 3c-0l-3cr
Focuses on aspects of acquiring, storing, retrieving, and effectively utilizing health information to support decision making, knowledge, and outcomes. Combines concepts, theory, and practice from the cognitive, computer, and information sciences.

NURS 482 Independent Study var-1-3cr
Prerequisite: Prior approval through advisor, faculty member, department chair, dean, and Office of the Provost
Students with interest in independent study of a topic not offered in the curriculum may propose a plan of study in conjunction with a faculty member. Approval is based on academic appropriateness and availability of resources.

NURS 493 Internship var-1-12cr
Prerequisites: NURS 236 or licensed practical nurse or registered nurse; 60cr completed; minimum 2.0 GPA
A supervised experience in a practice setting that extends and complements course work in nursing. The types of practice settings may include acute care hospitals, outpatient health centers, and community agencies.

PHIL: Philosophy
Department of Philosophy
College of Humanities and Social Sciences

PHIL 100 Introduction to Philosophy 3c-0l-3cr
Acquaints the beginning student with philosophical problems and methods. Possible topics include the existence of God, human freedom, the scope and limits of human knowledge, the nature of mind, the nature of morality, and the relationship between the individual and the state.

PHIL 101 Critical Thinking 3c-0l-3cr
An introduction to basic principles of informal logic and critical thinking. An emphasis is on different kinds of arguments, methods of argument evaluation, and the analysis of arguments as they arise in various contexts, such as political debate, advertising, science, law, and ethics.

PHIL 122 Contemporary Moral Issues 3c-0l-3cr
Examines attempts to answer foundational questions of ethics, including the following: Why should we be moral? What do morally correct actions have in common? Are there objective moral standards, or are moral codes relative to individual societies? Does morality require religion? Diverse moral theories are applied to contemporary debates and controversies, such as environmental ethics, abortion, capital punishment, affirmative action, and animal rights. Readings will draw on historical and contemporary figures.

PHIL 130 Introduction to Biomedical Ethics 3c-0l-3cr
Introduces ethical issues in medicine and health care, such as patient autonomy and surrogate decision making; death, dying, and end of life care; reproductive ethics; justice and allocation of health care resources; global health, poverty, and development; public health ethics; and ethics of emerging medical technologies.

PHIL 221 Symbolic Logic I 3c-0l-3cr
Introduces students to the study of formal patterns of good reasoning. Topics include symbolizing English sentences in an artificial language, distinguishing between the semantics and syntax of that language, and learning to test for logical properties and relations using semantic methods (truth-tables, models) and syntactic methods (derivations). Students with an interest in computer science and mathematics will find the material of particular interest and use.

PHIL 223 Philosophy of Art 3c-0l-3cr
Introduces students to the philosophical investigation of art and aesthetics. Focuses on some of the major problems in the philosophy of art, for example, the definition of art, the nature of works of art, the nature of artistic creativity, the evaluation of works of art, the relationship between art and emotion, and the relationship between aesthetics and ethics.

PHIL 232 Philosophies of Love 3c-0l-3cr
Examines the philosophical foundations of contemporary institutions and ideologies of romantic love. Considers major positions in both the history of philosophy and contemporary philosophy. Investigates the concepts, problems, and philosophical theories central to understanding romantic love, marriage, and divorce (Titled Philosophical Perspectives on Love, Marriage, and Divorce before 2014-15.)

PHIL 240 Philosophy and the Good Life 3c-0l-3cr
Examines philosophical attempts to say what it means to live a good life. Is living a good life simply about maximizing the pleasure one experiences? Does a good life require religious faith? Is being virtuous essential to living a good life? Historical thinkers considered may include Plato, Aristotle, Confucius, Laozi, Augustine, Aquinas, Rousseau, Nietzsche, and Russell. Contemporary philosophical work on happiness informed by empirical research may also be considered.

PHIL 270 Ethics and the Environment 3c-0l-3cr
Applies ethical theory to environmental issues, including resource depletion, animal rights, biotic endangerment, environmental degradation, climate change, and environmental justice. Considers arguments by which human-caused environmental destruction is intrinsically wrong, wrong independently of human interests and purposes, and arguments for environmental policies by which the following are granted rights, interests, or inherent value: non-human animals, all living things, all natural things, biotic communities, and ecosystems. Also considers arguments that environmental policies cannot be applied globally without injustice to humans, including poor and indigenous peoples.

PHIL 281 Special Topics var-1-3cr
Prerequisite: As appropriate to course content
Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 281 are offered primarily for lower-level undergraduate students.

PHIL 320 Ethical Theory 3c-0l-3cr
Examines historical and contemporary work on fundamental issues in ethical theory, with an emphasis on the three major approaches in normative ethics: consequentialism, deontology, and virtue ethics. Also explores select topics in contemporary metaethics, such as the meaning of moral discourse, the possibility of moral knowledge, and the nature of reasons and moral motivation.

PHIL 323 Political Philosophy 3c-0l-3cr
Through an examination of Ancient, Modern, and contemporary political thought, introduces the key issues of political philosophy: the justification of government authority, the role of the government in the just distribution of wealth in society, the nature of equality, the nature and importance of individual liberty and rights, the connections between race, gender, and political power, and the question of the universal applicability of concepts fundamental to European and American political philosophy in light of increasing globalization.

PHIL 324 Ancient Greek Philosophy 3c-0l-3cr
Explores the foundations of Western philosophy through examination of important philosophers of the Ancient period, such as the Pre-Socratic philosophers, Socrates, Plato, and Aristotle. Topics may include the nature of the physical universe, Plato’s theory of Forms, the nature of happiness, and the possibility of morality. (Titled Ancient Philosophy before 2014-15.)

PHIL 325 Early Modern European Philosophy 3c-0l-3cr
A study of exemplary philosophical texts from the late 16th through the late 18th century. Figures may include Descartes, Hobbes, Locke, Spinoza, Berkeley, Leibniz, Hume, and Kant. Explores such topics as the nature of matter and mind, the possibility and limits of knowledge, and the emerging scientific challenge to church and ancient authority. (Titled Modern Philosophy before 2014-15.)

PHIL 326 Existentialism 3c-0l-3cr
Examines existentialism as a philosophical movement, one that rejects both traditional religious and overly reductive, scientific conceptions of human existence. As an alternative, existentialist philosophers share the project of trying to articulate a conception of an authentic, meaningful life outside of the parameters of these approaches. Readings are drawn from major thinkers in this movement, including Søren Kierkegaard, Friedrich Nietzsche, Martin Heidegger, Jean-Paul Sartre, Simone de Beauvoir, and Albert Camus. (Titled Phenomenology and Existentialism before 2014-15.)

PHIL 330 Philosophy of Science 3c-0l-3cr
Philosophical investigation into the character of empirical scientific thought and practices: measures of confirmation; empirical success; theory ladenness of observation; scientific rationality and the aims of science; the inference from empirical success to truth; the logic of explanation; the character of natural laws; levels of theorizing and intertheoretic reduction; the ideal of objectivity and the place of extra-scientific values in theory appraisal. No special background required.

PHIL 350 The Human Experience of Time 3c-0l-3cr
Examines philosophical questions about the nature and experience of time. Explores how philosophical views about time are informed by work in different fields, such as anthropology, religious studies, and physics. Questions include whether time is real or an illusion, whether it flows, whether the past, present, and future are equally real, whether time travel is possible, how different cultures think about time and what light that sheds on its true nature. Readings drawn from a wide range of historical and contemporary sources.

PHIL 360 Philosophy of Mind 3c-0l-3cr
Focuses on the mind-body problem. Topics covered may include dualism, logical behaviorism, identity theories, functionalism, various forms of physicalism, mental causation, reductionism, and consciousness.

PHIL 390 Philosophy of Human Nature 3c-0l-3cr
Examines philosophical theories of human nature, including how traditional philosophical debates about the mind, morality, persons, and freedom are informed by recent empirical work in the cognitive sciences. Topics covered may include philosophical and scientific debates about the innate content and structure of the human mind, moral judgment, the possibility of free will, the extent to which human beings are rational, and the nature of the self and self-knowledge. Connections between conceptions of human nature and political philosophy, as well as bioethical issues concerning enhancement and transhumanism, may also be discussed.

PHIL 420 Metaphysics 3c-0l-3cr
Explores the nature of reality through investigation of such concepts as substance, cause, freedom, and God. Draws on both historical and contemporary writings. Other topics may include the nature of space and time, the role of language in comprehending reality, the possibility of nonsensory knowledge, and the nature of possibility and necessity.

PHIL 421 Theory of Knowledge 3c-0l-3cr
Examines various views concerning the nature of knowledge, belief, and justification. Readings drawn from a wide range of historical and contemporary authors. Additional topics may include perceptual knowledge, common sense, skepticism, and the relation between a knower and the community.

PHIL 450 Philosophy of Law 3c-0l-3cr
An examination of central issues in the philosophy of law, including law and morality, the interpretation of law, and philosophical and legal issues concerning punishment, justice, rights, and liberty. Combines philosophical theory with consideration of selected court cases to develop an understanding of law and its place in society.

PHIL 460 Philosophy of Language 3c-0l-3cr
An investigation of issues in the philosophy of language and related issues in linguistics (including anthropological linguistics, sociolinguistics, and psycholinguistics). Topics include, for example, the influence of language on perception, rationalist/empiricist perspectives on language acquisition, language and political control, reference, meaning, and truth.

PHIL 481 Special Topics var-l-3cr
Prerequisite: As appropriate to course content
Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 481 are primarily for upper-level undergraduate students.

PHIL 483 Honors Thesis var-1-6cr
Prerequisites: Admission to departmental honors program; prior approval through advisor, faculty member, department chair, dean, and Office of the Provost
An intensive, focused study involving independent research culminating in a written thesis approved by a thesis director and two faculty readerscommittee members. May be taken more than once to a maximum of 6cr.

PHIL 493 Internship in Philosophy var-3-6cr
Prerequisites: Permission of the department, junior or senior philosophy major or double major, 2.5 GPA
A supervised experience of no longer than one semester and no less than five weeks. This would take place in either a public or private organization in areas that either extend and develop or complement course work in philosophy. Log and/or major paper required. Internships are to be done with a clear analysis, argumentation, and examination of governing principles.

PHYS: Physics
Department of Physics
Kopchick College of Natural Sciences and Mathematics

PHYS 100 Prelude to Physics 3c-0l-3cr
Prerequisite: Students who have earned a “C” or better in a higher number physics course may not take this course.
Prepares students for their first course in quantitative physics by reviewing fundamental concepts involving measurement and error, graphing, motion, and applications of Newton’s Laws in developing problem-solving skills. Also presents a historical perspective as well as introduces the many opportunities that exist for those with a background in physics.

PHYS 101 Energy and Our Environment 3c-0l-3cr
An overview of the areas of energy, transportation, and pollution. These
topics are approached via the relevant concepts of physical science and physics. A non-laboratory course for Liberal Studies requirements.

**PHYS 105 The Physics of Light and Sound** 3c-0l-3cr
The study of light and sound as applied in the production of objects of art and the production of music. Includes the study of vision, light in nature, photography, and artistic media and the study of hearing, musical sound, musical instruments, and room acoustics. A non-laboratory course for Liberal Studies requirements.

**PHYS 111 Physics I Lecture** 3c-0l-3cr
Prerequisites: Elementary algebra and trigonometry
General college physics; mechanics, wave motion, and sound.

**PHYS 112 Physics II Lecture** 3c-0l-3cr
Prerequisite: PHYS 111
Electricity and magnetism, heat, light, atomic and nuclear physics, and an elementary introduction to relativity and quantum theory.

**PHYS 121 Physics I Lab** 0c-3l-1cr
Prerequisite or Corequisite: PHYS 111
Physics laboratory at level of Physics I; exercises in mechanics, wave motion, and sound.

**PHYS 122 Physics II Lab** 0c-3l-1cr
Prerequisite or Corequisite: PHYS 112
Physics laboratory at level of Physics II; exercises in optics, electricity and magnetism, and radioactivity.

**PHYS 131 Physics I-C Lecture** 3c-0l-3cr
Prerequisite: MATH 121 or 125, at least concurrently
A calculus-based course in general college physics; topics covered are similar to those covered in PHYS 111 but are treated in more depth through the use of calculus.

**PHYS 132 Physics II-C Lecture** 3c-0l-3cr
Prerequisite: MATH 122 or 126, at least concurrently
A calculus-based course in general college physics utilizing the techniques in problem solving learned in PHYS 131 applied to more advanced topics; topics covered are: electric fields, magnetic fields, Coulomb’s Law, Gauss’ Law, Ampere’s Law, circuits, geometric optics, and physical optics.

**PHYS 141 Physics I-C Lab** 0c-3l-1cr
Prerequisite or Corequisite: PHYS 131
Physics laboratory at same level as Physics I-C; exercises in mechanics, wave motion, and sound.

**PHYS 142 Physics II-C Lab** 0c-3l-1cr
Prerequisite or Corequisite: PHYS 132 at least concurrently
Physics laboratory at same level as Physics II; exercises in optics, mechanics, wave motion, and sound.

**PHYS 151 Medical Physics Lecture** 3c-0l-3cr
Development of concepts and principles of physics with a strong emphasis as to their use and application in medical and other biophysical areas.

**PHYS 161 Medical Physics Lab** 0c-3l-1cr
Corequisite: PHYS 151
Experiments dealing with applications of physical principles to the field of medicine. Practical experience with use of electronic equipment, chart recorders, etc., of type found in modern-day medicine are introduced.

**PHYS 231 Electronics** 3c-3l-4cr
Prerequisites: MATH 122 or 126; PHYS 112 or 132
Circuit theory, transients, transistor circuits, frequency response, input and output impedance, feedback, and electronic noise. Operational amplifiers and digital electronics.

**PHYS 260 Introduction to Nanoscience and Technology** 3c-0l-3cr
Prerequisite: PHYS 112 or 132
An introduction to the theoretical and experimental concepts of the emerging field of nanotechnology. Prepares students from a wide range of disciplines for careers or higher studies in areas involving nanotechnology. Inherently interdisciplinary in nature, bridges across physics, chemistry, biology, and computer science. Covers the emerging role of nanostructure materials for current and future applications in the fields of electronics, energy, textiles, and medicine.

**PHYS 281 Special Topics** var-1-3cr
Prerequisite: As appropriate to course content
Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 281 are offered primarily for lower-level undergraduate students.

**PHYS 311 Modern Physics** 3c-0l-3cr
Prerequisites: PHYS 112 or 116 or 132; MATH 122 or 126
The history of modern physics is covered. Particle and wave properties of matter are explored using the ideas of quantum mechanics. Systems examined using the ideas of quantum and classical mechanics are atomic structure, solid state, and nuclear physics. The special theory of relativity will also be covered. Some of the problems are solved using computers.

**PHYS 342 Thermal and Statistical Physics** 3c-0l-3cr
Prerequisite: MATH 122 or 126; PHYS 112 or 132
Thermodynamics, laws of thermodynamics, low-temperature physics, entropy, properties of ideal gas, and an introduction to statistical mechanics.

**PHYS 345 Optics** 3c-0l-3cr
Prerequisites: MATH 122 or 126; PHYS 112 or 132
Geometrical optics and physical optics, including interference, diffraction, and polarization. Quantum optics is introduced.

**PHYS 350 Intermediate Experimental Physics I** 0c-6l-3cr
Prerequisites: PHYS 331; PHYS 342 or EOPT 120
Performs required fundamental experiments in areas of mechanics, optics, modern physics, and heat. Speaking before other classmates and faculty and competence in writing scientific papers and reports are emphasized.

**PHYS 355 Computer Interfacing** 2c-2l-3cr
Prerequisite: COSC 110
Teaches the fundamentals of interfacing the personal computer to its physical surroundings. Teaches how to collect data and to control experiments in real time. Shows how to use digital-to-analog conversion (DAC) techniques and analog-to-digital conversion (ADC) techniques. A graphical software package (such as LabVIEW) is also used to design icon-based interfacing tools, to learn how to use virtual instruments, and to analyze data.

**PHYS 401 Theoretical Physics** 3c-0l-3cr
Prerequisites: PHYS 131, 132; MATH 125, 126
Explores the applied mathematics necessary to solve ordinary and partial differential equations in closed and series forms for boundary value problems in intermediate and advanced physics. Coordinate transformations, tensor analysis, special functions, and series involving complex variables and integral transforms are also considered.

**PHYS 441 Classical Mechanics** 3c-0l-3cr
Prerequisites: PHYS 131, 132; MATH 125, 126
Corequisite: MATH 341 or Physics Department permission
Covers vectors, generalized coordinates, and coordinate transformations to study the mechanics of a particle and a system of particles in one, two, and three dimensions. Central forces, planetary, and satellite motion and rotation, oscillations, and conservation laws in the Newtonian formulation of classical mechanics are included and used to solve dynamical problems for various mechanical systems.

**PHYS 451 Electricity and Magnetism** 3c-0l-3cr
Prerequisites: PHYS 131, 132; MATH 125, 126
Prerequisite or Corequisite: PHYS 441 or department permission
Treats elements of vector analysis, electrostatics, special techniques for finding electric potential, electric field in matter, magnetostatics, magnetic...
field in matter, electrodynamics, Maxwell’s equations, and electromagnetic waves at the calculus level.

**PHYS 461 Quantum Mechanics I**

**Prerequisites:** PHYS 331, MATH 341

Quantum mechanics following methods of Schrodinger and Heisenberg, application to harmonic oscillator, three-dimensional Schrodinger equation, hydrogen atom, electron in a magnetic field—normal and anomalous Zeeman effect, spin.

**PHYS 472 Nuclear Physics**

**Prerequisite:** PHYS 331

A survey of nuclear physics, nuclear size, nuclear mass, reaction theory, types of radioactive decay, nuclear models, nuclear forces, and elementary particles.

**PHYS 482 Independent Study in Physics**

**Prerequisite:** Prior approval through advisor, faculty member, department chair, dean, and Office of the Provost

Students with interest in independent study of a topic not offered in the curriculum may propose a plan of study in conjunction with a faculty member. Approval is based on academic appropriateness and availability of resources. Work is supervised by a Physics Department faculty member but does not necessarily involve regular lecture or laboratory hours.

**PLSC: Political Science**

**Department of Political Science**

**College of Humanities and Social Sciences**

**PLSC 101 World Politics**

3c-0l-3cr

An analysis of contemporary (post-1945) state system and forces shaping the world in which we live. Student is given a framework within which to analyze contemporary international politics.

**PLSC 111 American Government**

3c-0l-3cr

Investigates the way American government works (and why sometimes it doesn’t). Examines who gets what, why, and how in America and who pays for it, with an emphasis on understanding the origin, structure, and functions of US government. Looks beyond the divisions between “liberals” and “conservatives” to understand and evaluate contemporary political events and practices. Founding principles and their modern application are a core focus. (Titled American Politics before 2014-15.)

**PLSC 250 Public Policy**

3c-0l-3cr

Emphasizes dynamics of government as they are evidenced in public opinion, pressure groups, political parties, and our governmental institutions; attention also directed toward the political-economical nexus within American society.

**PLSC 251 State and Local Political Systems**

3c-0l-3cr

Examines institutions and processes of state and local governments, with special attention to Pennsylvania; emphasis on the nature of federalism, state constitutions, and role of state and local government in an urban society.

**PLSC 260 Contemporary Political Ideas**

3c-0l-3cr

A survey of political ideas influential in contemporary politics, knowledge of which is essential for various analyses in political science. Ideas discussed include conservatism, “liberalism” or social democracy, socialism, anarchism, fascism, political Islam, and feminist and environmentalist thought.

**PLSC 270 Fundamentals of Homeland Security**

3c-0l-3cr

Presents fundamental concepts of homeland security and the complexity of this area of government activity and academic study. Explores emergency management and homeland defense, the two main fields of study and practice within homeland security, through a collaborative and integrated foundation involving multiple disciplines of the homeland security enterprise.

**PLSC 280 Comparative Government I: Western**

3c-0l-3cr

Analyzes Western political systems with emphasis on major contemporary democratic governments of Europe. Analyzes and compares their political cultures, political institutions, and political processes.

**PLSC 281 Special Topics**

var-1-3cr

**Prerequisite:** As appropriate to course content

Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 281 are offered primarily for lower-level undergraduate students.

**PLSC 282 International Relations**

3c-0l-3cr

Provides a conceptual framework for understanding sovereignty, nationalism, power, security, dispute settlement, and diplomatic, legal, economic, and military relations of nation-states.

**PLSC 283 American Foreign Policy**

3c-0l-3cr

Examines formulation and execution of American foreign policy, with attention to governmental institutions, mass media, interest groups, and public opinion; emphasizes contemporary problems.

**PLSC 285 Comparative Government II: Non-Western Political Systems**

3c-0l-3cr

Analyzes major non-Western political systems with emphasis on authoritarian and totalitarian systems. Analyzes and compares in a systematic manner their political cultures, political institutions, and political processes.

**PLSC 300 Research Methods in Political Science**

3c-0l-3cr

An examination of the application of the scientific approach to the investigation of social and political phenomena. Concentrates on approaches, methods, and computer tools. All political science majors and minors are strongly urged to enroll.

**PLSC 339 Jihad and the Origins of Islamist Movements in the Middle East**

3c-0l-3cr

**Prerequisites:** Sophomore standing, 3cr of college history

Discusses the concept of “jihad” in Islamic history: its origins, development, and historical deployment by groups within the Muslim community. Examines the history and origins of groups such as al-Qaeda, the Taliban, and ISIS and considers whether these groups are “medieval” or actually modern products of globalization. (Also offered as HIST 339; may not be taken for duplicate credit.)

**PLSC 344 Terrorism**

3c-0l-3cr

**Prerequisite:** PLSC 101 or 111 or CRIM 101 or 102 or instructor permission

An in-depth study of the legal and international issues that the United States faces in response to combating international terrorism. The emphasis is placed on identifying causes of terrorism and the most plausible threats; terrorist networks, their commonalities and differences, and the difficulty in countering; and determining appropriate responses, to include political and legal implications, threat analysis, physical security, and target hardening. (Also offered as CRIM 344; may not be taken as duplicate credit.)

**PLSC 348 Top Secret America: The Rise and Reach of the National Security State**

3c-0l-3cr

Focuses on the historical development of the concept of national security in the US and on the intersection of national and broader international security concerns in the Cold War context. Identifies, for the Cold War era and beyond, diplomatic, military, and intelligence capabilities of governments and explores how individuals and groups conceptualized themselves, and their security. Explores one powerful motivator: fear and how it translated into political actions and citizen involvement in Cold War concepts. HIST 348 and PLSC 348 may be substituted interchangeably for D/F repeats, but may not be used for duplicate credit.

**PLSC 350 The Presidency**

3c-0l-3cr

An examination of the office of president, with attention to constitutional foundations, evolution, structure, powers, and functions; some comparisons between presidential and parliamentary systems and between offices of president and governor.

**PLSC 351 Legislative Process**

3c-0l-3cr

As appropriate to course content
A functional study of legislative bodies and process of legislation, covering organization of legislative assemblies, operation of committee system, procedures, bill drafting, aids, and controls over legislation.

**PLSC 354 Metropolitan Problems** 3c-0l-3cr
Analyzes multiplicity of problems facing our metropolitan areas. Contemporary developments such as urban renewal, shrinking tax base, federal aid to cities, subsidized mass transit, municipal authorities, and political consolidation are examined.

**PLSC 355 Intergovernmental Relations** 3c-0l-3cr
Explores characteristics of federal systems of government, with emphasis on theories, origins, institutions, problems in intergovernmental relations in the United States, federal systems in other nations, and trends.

**PLSC 358 Judicial Process** 3c-0l-3cr
**Prerequisite:** PLSC 111
Explores nature and limits of judicial power, courts as policymaking bodies, selection of judges, decision process, external forces impacting on the courts, and role of Supreme Court in its relationship with Congress, the presidency, and federalism.

**PLSC 359 Constitutional Law and Civil Liberties** 3c-0l-3cr
**Prerequisite:** PLSC 111
A study of civil liberties and civil rights issues through leading Supreme Court decisions; topics treated include First Amendment rights, procedural due process and the Bill of Rights, and Equal Protection problems in civil rights.

**PLSC 360 Classical Political Thought** 3c-0l-3cr
**Restriction:** Not for credit after PHIL 323
The origins and development of Western thought from Plato and Aristotle through Cicero and Saint Thomas Aquinas. Focuses especially on political participation as a way of life, the unity of political and moral conceptions in premodern political thought, and the relationship between order and justice.

**PLSC 361 Modern Political Thought** 3c-0l-3cr
Covers the major representatives of modern political thought since the Renaissance. Follows the development of the specifically modern notion of the state and political action through the works of Machiavelli, Hobbes, Locke, Rousseau, Marx, and Lenin. Emphasizes the “instrumentalist” state and the idea of a political science.

**PLSC 362 American Political Thought** 3c-0l-3cr
Covers a variety of American political ideas from the Puritans through recent radical and conservative critiques of American liberal democracy. Focus on the continuing development of the idea of individual rights, the political theory of the Constitution, and the tension between classical liberalism and popular rule.

**PLSC 370 The Practice of Public Administration** 3c-0l-3cr
Examines the environment and structure of public sector organizations; organizational theory and organizational culture; intergovernmental and intra-organizational relations; leadership and ethics; the planning, management, and evaluation of programs and services; the administration of human resources; budgeting and finance; and management information. Emphasizes the integration of theory and practice through case studies and projects.

**PLSC 371 Issues in Public Administration** 3c-0l-3cr
An intensive study of the role of federal agencies and their administrators in determining and developing public policy. Public administration in practice is emphasized by utilizing case studies.

**PLSC 372 Constitutional Issues in Homeland Security** 3c-0l-3cr
Explores constitutional issues raised by the U.S. government’s post-9/11 efforts to battle terrorism abroad and domestically. Analyzes the laws and practices used to protect national security in the context of constitutional principles as articulated in the opinions of the U.S. Supreme Court and other published case law.

**PLSC 375 Crisis Management and Decision Making** 3c-0l-3cr
Offers a broader perspective on the nature of crises, particularly international and national security-related crises from the perspective of policy makers and policy implementers. Examines the ways in which people behave and the decisions they make in crisis situations. Focuses on the ways policy and implementation practitioners can prepare and train for unanticipated events and their consequences. Included as a controlled elective in the Homeland Security major track.

**PLSC 382-387 Political Systems** 3c-0l-3cr
**Suggested Prerequisites:** PLSC 280 and/or 285
An intensive, comparative study of the government and politics of a selected region. PLSC 382 Africa (currently inactive); PLSC 383 Asia (currently inactive); PLSC 384 Middle East (currently inactive); PLSC 385 Central and Eastern Europe (currently inactive); PLSC 387 Latin America (currently inactive)

**PLSC 388 Dimensions of National Security** 3c-0l-3cr
Deals with national security problems including decision making and budgeting, levels of strategy, the utility of force, and the impact of the military on American society.

**PLSC 389 International Development Strategies** 3c-0l-3cr
**Suggested Prerequisites:** PLSC 280 and/or 285
Political characteristics of emerging nations; impact of economic and social change on political structure; evolving patterns of political development; and techniques of nation building.

**PLSC 404 Women and Politics** 3c-0l-3cr
Focuses on the role of women in political life and policies that especially affect women in both developing and developed countries.

**PLSC 405 Sexuality and Law** 3c-0l-3cr
Critically examines the role of law in regulating sexuality in the United States. Analyzes legal and constitutional questions regarding sex, sexual orientation, and identity. Using statutory law and written judicial opinions, the course explores the evolution of legal approaches to issues including regulation of married and non-married sexual activity, same-sex marriage and sexual orientation, and First Amendment protections of LGBT rights. Emphasizes the role of the Supreme Court’s interpretation of the Constitution, especially of due process and equal protection.

**PLSC 422 International Law and Organizations** 3c-0l-3cr
A survey of the main concepts and history of international law and an analysis of the major international organizations such as the United Nations, European Union, and Organization of American States. Knowledge of how such organizations operate is essential to understand international relations.

**PLSC 465 Intelligence Process and Policy** 3c-0l-3cr
Demystifies intelligence and focuses on the critical thinking and intellectual skills the process of intelligence requires to provide government, private, and nonprofit decision makers with useful information on which to base sound decisions. The process involves collecting, analyzing, and providing data to those decision makers. Students also examine the impact of the structure and role of the intelligence community in formulating US national security policy.

**PLSC 480 Political Science Seminar** 3c-0l-3cr
Readings and written assignments on a specific topic determined by the instructor in charge.

**PLSC 481 Special Topics** var-1-3cr
**Prerequisite:** As appropriate to course content
Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 481 are primarily for upper-level undergraduate students.

**PLSC 482 Independent Study** var-3cr
**Prerequisite:** Prior approval through advisor, faculty member, department chair, dean, and Office of the Provost
Students with interest in independent study of a topic not offered in the curriculum may propose a plan of study in conjunction with a faculty member. Approval is based on academic appropriateness and availability of resources.
PLSC 493 Political Science Internship  var-2-12cr
**Prerequisites:** 9cr in political science with 2.0 GPA; PLSC 111; approval of internship director and chair
Practical experience in government and politics. Log and research project required. Course grade determined by the instructor. Maximum of 6cr applied to minimum in major; maximum of 3cr applied in minor.

PNAF: Pan-African Studies
College of Humanities and Social Sciences

PNAF 131 Introduction to Pan-African Studies  3c-0l-3cr
A multidisciplinary introduction to Africa and the African diaspora. Explores the effects of Africa's history, in particular colonialism and independence, on present-day Africa; examines the relationship between Africa and the African diaspora with special attention to African arts, social systems, and political and economic development; looks at Africa's contribution to contemporary culture in the Americas.

PNAF 482 Independent Study  var-1-3cr
**Prerequisite:** Prior approval through advisor, faculty member, program coordinator, dean, and Office of the Provost
Students with interest in an independent study of a Pan-African studies-related topic not offered in the curriculum may propose a plan of study in conjunction with a faculty member. Approval is based on academic appropriateness and availability of resources.

PNAF 493 Pan-African Studies Internship  var-3-12cr
Offers practical experience in a field in which knowledge of and understanding of the Pan-African world and/or people of African descent are directly utilized.

PSYC: Psychology
Department of Psychology
Kopchick College of Natural Sciences and Mathematics

PSYC 100 The Psychology Major: Curriculum and Careers  1c-0l-1cr
**Prerequisites:** PSYC majors
Acclimates students to the culture and opportunities associated with the study of psychology at IUP. Emphasizes career options and pathways to success in a as a psychology major and the benefits of the discipline to individuals and society.

PSYC 101 General Psychology  3c-0l-3cr
An introduction to the scientific study of behavior and mental processes.

PSYC 250 Introduction to Applied Psychology  3c-0l-3cr
**Prerequisites:** PSYC 101
Surveys the various settings and professions that require the use and application of psychology and psychological principles to solve human problems. Explores the types of skills required in the applied professions and the clientele served, as well as the theoretical bases for applied work in different contexts.

PSYC 280 Psychological Inquiry  3c-0l-3cr
**Prerequisites:** PSYC 101, psychology minors
Introduces students minorinng in psychology to issues central to carrying out and interpreting empirical research in the field. Students become more sophisticated consumers of empirical research findings. May not be taken for credit after successful completion of PSYC 290.

PSYC 290 Research Design and Analysis I  3c-2l-4cr
**Prerequisites:** MATH 217, PSYC 101
A laboratory course devoted to designing, conducting, and evaluating results of psychological experiments.

PSYC 291 Research Design and Analysis II  3c-2l-4cr
**Prerequisites:** PSYC 101, grade of "C" or better in PSYC 290
A continuation of Research Design and Analysis I.

PSYC 310 Developmental Psychology  3c-0l-3cr
**Prerequisite:** PSYC 101
A comprehensive study of all factors that contribute to human development from conception through death, particularly as they relate to psychological development of the individual. May receive credit toward the psychology major or minor for only one of PSYC 310, 311, or 315.

PSYC 311 Child Psychology  3c-0l-3cr
**Prerequisite:** PSYC 101
The study of factors that influence total development and behavior of child. Current theories and research are considered, with focus on optimum development of individual. May receive credit toward the psychology major or minor for only one of PSYC 310, 311, or 315.

PSYC 312 Adult Development and Aging  3c-0l-3cr
**Prerequisite:** PSYC 101
A survey of physiological, cognitive, emotional, and social issues affecting the young adult, the middle-aged, and the elderly. Includes an examination of significant adult life crises.

PSYC 313 Non-normative Development in Adulthood (CAAST)  3c-0l-3cr
**Prerequisite:** PSYC 101
A survey of non-normative transitions for younger, middle-aged, and older adults. Emphasis on how various losses, neurocognitive disorders, abuse, and neglect affect adult development. A component of the interdisciplinary Child and Adult Advocacy Studies (CAAST) minor and certificate programs. May not get credit for both PSYC 312 and 313.

PSYC 314 Child and Adolescent Psychopathology (CAAST)  3c-0l-3cr
**Prerequisite:** PSYC 101
An in-depth examination of theories and research related to risk factors and protective factors in the development of children and adolescents. Highlights how physical, cognitive, and social development can be impacted by violence. A component of the interdisciplinary Child and Adult Advocacy Studies (CAAST) minor and certificate programs. May not get credit for both PSYC 311 and 314.

PSYC 315 Experimental Development Psychology  3c-2l-4cr
**Prerequisite:** PSYC 280 or 290
Studies human development from conception to death with emphasis on the physical, cognitive, and emotional domains. Students are involved in observation and data collection. May receive credit toward the psychology major or minor for only one of PSYC 310, 311, or 315.

PSYC 320 Personality  3c-0l-3cr
**Prerequisite:** PSYC 101
Provides comparative analysis of major representative traditional and contemporary theories of personality.

PSYC 321 Abnormal Psychology  3c-0l-3cr
**Prerequisite:** PSYC 101
The description, causes, and treatment of behaviors labeled abnormal in our society are studied from experimental and clinical points of view.

PSYC 322 Violence Across the Life Span  3c-0l-3cr
**Prerequisites:** PSYC 101, department permission
A multidisciplinary and contextual approach to understanding interpersonal violence across the lifespan. Emphasizes skills building in mandated reporting, forensic interviewing, documentation of violent incidents, working as a member of a multidisciplinary team, and being an advocate for violence prevention. May be taken for major or minor credit. Includes simulations of forensic interviews that take place outside of class time and that are required aspects. Simulation experiences provide practice carrying out a multidisciplinary approach to forensic investigations.

PSYC 325 Psychological Testing and Measurement  3c-2l-4cr
**Prerequisites:** MATH 217, PSYC 101, sophomore standing
Presents a series of focused discussions on principles, methods, and issues of psychological measurement. Also describes the major psychological tests currently in use and illustrates the administration and scoring of these tests.
The laboratory activities are intended to provide hands-on experiences in computerized analysis and evaluation of psychological tests, to demonstrate test administration and scoring in practical settings, and to enhance the understanding of psychological testing through class projects.

**PSYC 330 Social Psychology** 3c-0l-3cr
**Prerequisite:** PSYC 101
The study of the effects of the social environment on human behavior. Topics include perception of persons, attitude formation and change, and small-group interaction.

**PSYC 331 Environmental Psychology** 3c-0l-3cr
**Prerequisite:** PSYC 101
The study of the relationship between human behavior and its environmental context. Emphasizes the physical environment, both natural and built.

**PSYC 332 Community Psychology and Prevention Science (CAAST)** 3c-0l-3cr
**Prerequisite:** PSYC 101 or instructor permission
An introduction to the guiding principles of community psychology with an emphasis on prevention. Employs teamwork and service activities to apply students' new knowledge in addressing social and/or health issues impacting their communities. A component of the Child and Adult Advocacy Studies (CAAST) curriculum.

**PSYC 341 Conditioning and Learning** 3c-2l-4cr
**Prerequisites:** PSYC 101, 290
An examination of the basic principles of learning and related phenomena; discussion of classical conditioning, discrimination learning, and aversive control of behavior.

**PSYC 342 Human Cognition: Memory and Thinking** 3c-2l-4cr
**Prerequisites:** PSYC 101, 290
A study of methods and findings in areas of human memory and human information processing. May not receive credit toward the psychology major or minor for both PSYC 342 and 345.

**PSYC 345 Introduction to Human Cognition** 3c-0l-3cr
**Prerequisite:** PSYC 101
An overview of cognitive psychology. The Information Processing Model is contrasted with its predecessor, Behaviorism, and its contemporary challenger, Connectionism. May not receive credit toward the psychology major or minor for both PSYC 342 and 345.

**PSYC 350 Physiological Psychology** 3c-2l-4cr
**Prerequisites:** PSYC 101, 290
A study of the relationship between behavior and the anatomy and physiology of the nervous system. May not receive credit toward the psychology major or minor for both PSYC 350 and 356.

**PSYC 356 Biopsychology** 3c-0l-3cr
**Prerequisite:** PSYC 101
A study of the relationship between behavior and the anatomy and physiology of the nervous system. May not receive credit toward the psychology major or minor for both PSYC 350 and 356.

**PSYC 359 Sensation and Perception** 3c-2l-4cr
**Prerequisite:** PSYC 290
Introduces the biological and psychological processes that determine our perceptions and their relationships to physical properties of the environment. Laboratory work provides the opportunity to explore lecture and textbook topics firsthand and to collect and analyze psychophysical data.

**PSYC 360 Sensory Perception** 3c-0l-3cr
**Prerequisite:** PSYC 101
Introduces the biological and psychological processes that determine our perceptions and their relationships to physical properties of the environment. May receive credit toward the psychology major or minor for only one of PSYC 360 or 359.

**PSYC 371 Human Motivation** 3c-0l-3cr
**Prerequisite:** PSYC 101
A systematic study of how behavior is initiated, sustained, directed, and terminated. Current theories in this area are critically reviewed.

**PSYC 372 Drugs and Behavior** 3c-0l-3cr
**Prerequisites:** PSYC 101, junior standing or permission
A survey of the current knowledge concerning the actions of drugs. Includes legal and social issues surrounding drug use, hazard potential of commonly used drugs, review of current theories and issues regarding the use of drugs in psychotherapy, and consideration of treatment approaches for addiction.

**PSYC 374 Stress and Coping** 3c-0l-3cr
**Prerequisite:** PSYC 101
Fundamental concepts and findings in stress and stress-related disorders. Relationships of stress to disease and methods for coping with stress are presented.

**PSYC 378 Psychology of Death and Dying** 3c-0l-3cr
**Prerequisite:** PSYC 101
Theories and research which delineate the psychological factors affecting the dying person as well as those persons close to the one who is dying are discussed.

**PSYC 379 Psychology of Human Sexuality** 3c-0l-3cr
**Prerequisite:** PSYC 101
An overview of the psychological issues and research relevant to sexuality with an emphasis on gender roles. Social, psychological, and gender perspectives are used to examine a number of topics, including contemporary sexual attitudes, sexual response, sexual relationships, sexual dysfunction, sexual variations, sexual preference, and sexual violence. Research pertaining to each topic is presented. Students are encouraged to critically evaluate research and theory and to make connections between the material and their personal experience.

**PSYC 380 Gender and Violence** 3c-0l-3cr
**Prerequisite:** PSYC 101
A multidisciplinary approach to understanding interpersonal violence (across the life span) as impacted by gender. Analyzes interpersonal violence from a psychological, gendered, and social construction perspectives. Includes definitions and descriptions of forms of violence. Addresses the inter-connections and co-occurrence of violent incidents. Explores the relation of gender to the experience, reaction, and recovery from violence. An analysis of how gender roles contribute to interpersonal violence. Examines approaches to intervention and prevention of violence. Course is a component of the Child and Adult Advocacy Studies (CAAST) curriculum.

**PSYC 388 Forensic Psychology** 3c-0l-3cr
**Prerequisite:** PSYC 101
An examination of current topics at the interface between psychology and the legal system.

**PSYC 389 Psychology of Music** 3c-0l-3cr
**Prerequisite:** PSYC 101
An overview of theory and research on the psychological foundations of music, including music cognition, music perception, and the social psychology of music.

**PSYC 390 Industrial-Organizational Psychology** 3c-0l-3cr
**Prerequisites:** MATH 214 or 217, PSYC 101
The study of psychological principles in work organizations; application of psychological theory to the understanding and explanation of individual behavior and experience in work organizations. May not be taken for credit after successful completion of PSYC 425.

**PSYC 410 Historical Trends in Psychology** 3c-0l-3cr
**Prerequisites:** PSYC 101, junior or senior standing or permission
A comprehensive overview of historical antecedents of contemporary psychology with an emphasis on their implications for future developments in the field.

**PSYC 411 Psychology of Women** 3c-0l-3cr
**Prerequisites:** PSYC 101, junior or senior standing or instructor permission
A critical examination of the assumptions about women that are held by the discipline of psychology, considering both current research and individual
experience. The psychological effects of socialization on sex role identity, achievement, interpersonal power, mental health, and critical incidents in female development are discussed in the context of relevant concepts from developmental and social psychology.

**PSYC 450 Counseling Skills**  
3c-0l-3cr  
**Prerequisites:** PSYC 101, 290, 321, instructor permission  
Introduces students to the skills necessary to be effective in a mental health service delivery field, as well as the foundational helping skills required to form a therapeutic alliance with a client and evidence-based methods of evaluation and treatment.

**PSYC 460 Senior Seminar in Psychology**  
3c-0l-3cr  
**Prerequisite:** A Psychology Major, Senior level standing (90 or more credits), PSYC 290, or special permission  
Culminates students' Psychology major experience with the examination of a topic or problem through the synthesis of content from varied psychological perspectives. Critical thinking and application to big picture questions or real-world issues will be emphasized, as will the development of professional skills including writing, dissection, and presentations.

**PSYC 480 Honors Seminar in Psychology**  
3c-0l-3cr  
A seminar in the graduate tradition with a specialized topic. May be taken more than once to a maximum of 6cr.

**PSYC 481 Special Topics in Psychology**  
var-1-3cr  
**Prerequisite:** As appropriate to course content  
Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 481 are offered primarily for upper-level undergraduate students. May be taken more than once to a maximum of 6cr.

**PSYC 482 Independent Study in Psychology**  
var-1-3cr  
**Prerequisite:** Prior approval through advisor, faculty member, department chair, dean, and the Office of the Provost  
Individual students pursue their particular interests in psychology in consultation with a member of the staff. May be taken more than once to a maximum of 6cr. Approval is based on academic appropriateness and availability of resources.

**PSYC 483 Honors Thesis**  
var-1-6cr  
**Prerequisites:** Admission to departmental honors program; prior approval through advisor, faculty member, department chair, dean, and Office of the Provost  
An intensive, focused study involving independent research culminating in a written thesis approved by a thesis director and two faculty readers/committee members. May be taken more than once to a maximum of 6cr. Approval is based on academic appropriateness and availability of resources.

**PSYC 493 Psychological Practicum**  
var-1-12cr  
**Prerequisites:** PSYC 101, department permission  
Under supervision of Psychology Department, selected students receive experience in application of psychological techniques. May be taken more than once to a maximum of 12cr.

**PUBH: Public Health**  
**Colleges of Health and Human Services, Humanities and Social Sciences, and Natural Sciences and Mathematics**

**PUBH 122 Foundations of Public Health**  
3c-0l-3cr  
Defines public health and its origins and foundations as a field of inquiry. Explains the context of modern public health systems, major approaches to analyzing and understanding human health patterns, and the structure of public health systems in the United States.

**PUBH 306 Research Design and Analysis in Public Health**  
3c-0l-3cr  
**Prerequisites:** BIOL 301; MATH 216 or 217; PUBH 122  
Introduces methodological and ethical research principles in public health. Includes study designs, data collection, human subjects protection, quantitative and qualitative approaches, program evaluation, and community-based participatory research applications. Applies relevant case studies to emphasize research methods used, such as hypothesis generation and testing, study design, data collection and analysis, searching and critically evaluating research literature, identifying strengths and weaknesses of research studies, and drawing conclusions from research evidence.

**PUBH 493 Internship in Public Health**  
var-3-6cr  
**Prerequisites:** PUBH 122, 306; BIOL 301; SOC 442; ECON 360; GEOG/RGPL 316; NURS/ELR 314; NURS 410, 455; senior status  
A capstone opportunity for students to analyze and apply public health theories/models and research into their specific concentrations and experience the role of the public health professional. Consists of weekly one-hour seminar and weekly mentorship experience with public health professional 120-240 hours.

**QBUS: Quantitative/Business**  
**Department of Information Systems and Decision Sciences**  
**Eberly College of Business and Information Technology**

**Note:** Except for nonbusiness majors who have met the required prerequisites, students scheduling 300 and 400 courses are expected to have achieved junior standing as described in the Eberly College of Business and Information Technology Academic Policies.

**QBUS 215 Business Statistics**  
3c-0l-3cr  
**Prerequisite:** MATH 214  
Expands on the probabilistic concepts developed in MATH 214 to orient the student toward managerial decision making using quantitative methodologies. Topics include classical regression analysis, forecasting, Bayesian decision theory, linear programming, and simulation.

**QBUS 380 Introduction to Management Science**  
3c-0l-3cr  
**Prerequisite:** QBUS 215  
Discussion and application of mathematical models used in managerial decision making. Linear programming, Markov processes, queuing theory, EOQ models, and simulation techniques are among the topics covered.

**QBUS 450 Data Science for Business**  
3c-0l-3cr  
**Prerequisite:** QBUS 215  
An introduction to the practice of data science with a broad set of data analytic skills based on building real analytic applications on a variety of real data, including big data, unstructured data, and textual data. Skills include accessing and transferring data, applying various analytical frameworks, applying methods from machine learning and data mining, conducting large-scale rigorous evaluations with business goals in mind, and visualizing data analytic results.

**QBUS 482 Independent Study**  
var-1-3cr  
**Prerequisite:** Prior approval through advisor, faculty member, department chair, dean, and Office of the Provost  
Students with interest in independent study of a topic not offered in the curriculum may propose a plan of study in conjunction with a faculty member. Approval is based on academic appropriateness and availability of resources.

**REAL: Real Estate**  
**Department of Finance and Legal Studies**  
**Eberly College of Business and Information Technology**

**REAL 382 Real Estate Fundamentals**  
3c-0l-3cr  
**Prerequisite:** REAL 382  
One of the two courses required by the Pennsylvania Real Estate Commission to take the Pennsylvania Real Estate Sales Licensing Exam. Topics include real estate brokerage, the real estate market, listing contracts, the Pennsylvania Real Estate Licensing and Registration Act and its rules and regulations, appraisal, property management, fair housing laws, ethical...
RESP: Respiratory Care
Department of Nursing and Allied Health Professions
College of Health and Human Services

RESP 101 The Profession of Respiratory Care 1c-0l-1cr
Introduces the health care environment and specifically the respiratory care profession. Students visit a hospital respiratory care department and observe basic respiratory patient care procedures.

RESP 326 Respiratory Care Clinical Practice I 0c-9l-3cr
Prerequisites: Respiratory Care majors; Grades of “C” or better in BIOL 150 and 240 Corequisites: RESP 328 and 329 and 335
Introduces patient care in the clinical setting on the general floors and in the intensive care unit. Emphasizes the practice of basic respiratory care treatment modalities. Performs patient assessments and evaluates therapy outcomes. Includes sessions of simulated patient clinical training and evaluations as preparation for the hospital experience.

RESP 372 Pharmacology 3c-0l-3cr
Prerequisites: Respiratory Care majors; Grade of “C” or better in RESP 335, or by Program Director permission
Introduces pharmacology and therapeutics. Emphasizes the medications used in respiratory care. Discusses medication classification, action, usage, dosage, side effects and availability.

RESP 328 Applied Concepts in Respiratory Care 3c-0l-3cr
Prerequisite: Respiratory Care majors
Corequisites: RESP 326 and 329 and 335 or by Program Director permission
Investigates in fine detail the cardiopulmonary anatomy, physiology, cellular structure and function, and neuro-physiology. Reviews medical terminology pertaining to respiratory care. Introduces the physiologic assessment of gas exchange via arterial blood gas.

RESP 329 Respiratory Care Equipment 4c-0l-4cr
Prerequisites: Respiratory Care majors, or by Program Director permission
Corequisites: RESP 326, 328, 335
Introduces respiratory therapy equipment and related procedures. Focuses on the study of medical gas properties, safety systems and pressure-flow relationships. Emphasizes oxygen delivery systems and the rationale for their use. Introduces the principles, techniques and theory of mechanical ventilation. Provides theory of hyperinflation therapies and medication delivery systems. Explores gas laws and mathematics for respiratory care related to the therapeutic delivery of various medical gases and oxygen. Provides problem-solving for equipment difficulties through clinical scenarios.

RESP 333 Respiratory Care Clinical Practice II 0c-9l-3cr
Prerequisites: RESP 326 and 329; Respiratory Care majors
Corequisites: RESP 327 and 334 and 336
Continues application of treatment procedures introduced in Clinical I, providing greater independence and competence. Broadening the exposure to respiratory care and critical care procedures through specialty rotations. Focuses on mechanical ventilation, pathology, patient safety, and diagnostics.

RESP 334 Respiratory Care Instrumentation and Application 4c-0l-4cr
Prerequisites: Respiratory Care majors, C or better in RESP 326 and 329, or by Program Director permission
Corequisites: RESP 333 and 336
Provides a comprehensive knowledge of mechanical ventilation. Discusses the care of critically ill and physiologic consequences of mechanical ventilation.

RESP 335 Patient Care and Emergency Skills 4c-0l-4cr
Prerequisites: Respiratory Care majors or by Program Director permission
Corequisites: RESP 326 and 328 and 329
Introduces the history of respiratory care, the health care team and a variety of procedures. Explores the use of respiratory related medicines. Special emphasis is directed toward medical record extraction, documentation, interpretation and analysis. Techniques of equipment processing, infection prevention and control will be discussed. Analyzes patient vital signs, hemodynamic assessments, ventilator preparation, respiratory care emergency management, artificial airways and airway adjuncts. Examines ethical comportment, advanced directives, and organ recovery.

RESP 336 Cardiopulmonary Evaluation and Clinical Correlation 4c-0l-4cr
Prerequisites: Respiratory care majors, Grade of “C” or better in RESP 328 or by Program Director permission
Corequisites: RESP 333 and 334
Investigates disease states of the pulmonary and related systems in progression from etiology through treatment and prognosis. Explores bedside patient assessment, ABG diagnostics, and interventions.

RESP 425 Clinical Case Studies 3c-0l-3cr
Prerequisites: Respiratory Care majors; grade of “C” or better in RESP 333, 336 or by Program Director permission
Corequisite: RESP 426
Increases the working knowledge of disease states commonly experienced by patients in the critical care setting. Emphasizes recognition and treatment of various disease states. Explores methods for evaluation and treatment of clinical oxygenation disturbances and acid-base disorders. Clinical simulations, case studies, and patient management problems reviewed and discussed. Emphasizes appropriate information-gathering and decision-making techniques.

RESP 426 Respiratory Care Clinical Practice III 0c-12l-4cr
Prerequisites: Respiratory Care majors; RESP 327, and 333 and 334 and 336 or by Program Director permission
Corequisites: RESP 425 and 434
Continues respiratory care procedures with an emphasis on improving proficiency and refining skills in adult general and critical care areas. Provides experience in neonatal, pediatrics and non-acute health care settings is included with specialty rotations. Focuses on advanced skills related to mechanical ventilation.

RESP 429 Respiratory Care Leadership 3c-0l-3cr
Prerequisites: Respiratory Care majors; grade of “C” of better in RESP 333, or by Program Director permission
EXAMINES basic leadership and management principles as they apply to the healthcare setting and respiratory care in particular. Emphasizes leadership, professional communications, interactions and resource management in respiratory care and the healthcare environment. Focuses on professional opportunities, professional standards and conduct, leadership opportunities, and the transition from student to practitioner/leader. Includes United States healthcare system construct, regulatory bodies, and regulations for respiratory care. Provides insight into issues impacting respiratory care such as safety, quality, patient satisfaction, human resources and financial management.

RESP 430 Cardiopulmonary Diagnostics 3c-0l-3cr
Prerequisites: Respiratory Care majors; Grade of C or better in RESP 329 and 336
Focuses on lung volumes, capacities and measurement. Discusses diagnostic studies, including electrocardiography, equipment and procedures necessary for determining the presence and extent of pulmonary diseases. Examines the causes, recognition and treatment of ECG arrhythmias with interventions and supportive devices. Addresses additional diagnostic methods such as polysonography and bronchoscopy and rehabilitative evaluation methods.

RESP 432 Neonatal and Pediatric Respiratory Care 3c-0l-3cr
Prerequisites: Respiratory Care majors, a grade of “C” or better in RESP 334 and 336, or by Program Director permission
Corequisite: RESP 426
Discusses the normal anatomy and physiology, as well as the cardiopulmonary pathologies of neonatal and pediatric patients. Addresses unique differences between the respiratory care of infants and children versus the adult. Focuses on the application of respiratory therapies to neonatal and pediatric populations in the acute care, intensive care and home care venues.
RESP 433 Respiratory Care Clinical Practice IV 0c-12l-4cr
Prerequisites: Respiratory Care majors; grade of “C” or better in RESP 426 and 425 and 432 Corequisites: RESP 435 and 439, or by Program Director permission
Continues respiratory care procedures, with emphasis on greater independence, improving proficiency and refinement of skills in adult general and critical care areas. Includes continued clinical experiences in pediatric, neonatal care, and non-acute health care settings. Provides specialty clinical rotations and opportunities to develop leadership skills.

RESP 493 Respiratory Care Internship 1c-0l-1cr
Prerequisites: RESP 326 and 328, and 329, and 335, or by Program Director permission
Provides experience in a supervised practice setting that extends and complements course work in respiratory care. Participants must meet university and sponsoring site requirements. May be repeated for a maximum of 5 credits. A minimum of 40 hours is required for each credit.

RESP 435 Respiratory Care Across the Continuum 3c-0l-3cr
Prerequisites: Respiratory Care majors; Grade of “C” or better in RESP 425 and 426 or by Program Director permission
Corequisite: RESP 433
Discusses critical care diagnostic and therapeutic modalities pertinent to respiratory care. Addresses techniques and principles associated with patients in each stage of the continuum of care. Includes management of special populations of patients in acute care, long term care and home care.

RESP 441 Respiratory Care Professional I 2c-0l-2cr
Prerequisites: Respiratory Care majors; Grade of “C” or better in RESP 333 and 334, or by Program Director permission
Introduces the role of the respiratory therapist as educator and researcher in healthcare and higher education. Focuses on the requirements, roles and responsibilities of the respiratory care therapist. Presents a broad overview and immersion into the research process related to respiratory health.

RESP 451 Respiratory Care Professional II 2c-0l-2cr
Prerequisites: Respiratory Care majors; grade of “C” or better in RESP 441, or by Program Director permission
Explores advanced aspects of respiratory care education, building on concepts discussed in RESP 441. Focuses on evaluation methods and refining individual professional presentation skills. Emphasizes conducting respiratory care based research focusing on data gathering and analysis, formulating results, discussion and summarizing a group research project. Culminating in a capstone research project.

RGPL: Regional Planning
Department of Geography and Regional Planning
College of Humanities and Social Sciences

RGPL 103 Global Cities: Issues in Planning and Development 3c-0l-3cr
An introduction to the developmental and regional planning issues facing contemporary Western and non-Western cities. A theoretical framework sets up detailed case studies of developmental issues that are affecting urban populations in Africa, Asia, and Central and South America. Issues include such traditional topics as migration, population, poverty, and indigenous and colonial legacies, but environmental and infrastructure problems such as water supply, food security, energy, solid waste, disaster planning, and critical care areas. Includes continued clinical experiences in pediatric, neonatal care, and non-acute health care settings. Provides specialty clinical rotations and opportunities to develop leadership skills.

RGPL 213 Cartography and Map Design 3c-0l-3cr
Introduces principles of thematic map construction. Emphasizes techniques of choropleth mapping and the production of scientific graphs and charts. (Also offered as GEOG 213; may not be taken for duplicate credit.)

RGPL 232 Urban Landscapes 3c-0l-3cr
Introduces basic concepts of urban morphology and landscapes including site, situation, function, urban land use, urban structure, and urban hierarchy. Explores relationships between urban structure and urban planning. (Also offered as GEOG 232; may not be taken for duplicate credit.)

RGPL 313 Cartography II 3c-0l-3cr
Prerequisite: RGPL 213
Gives an understanding of the compilation and use of maps and quantitative data. Develops skills essential to the construction of various types of maps. (Also offered as GEOG 313; may not be taken for duplicate credit.)

RGPL 314 Map and Photograph Interpretation 3c-0l-3cr
Maps and air photographs, along with remote sensing materials, permit inventory and analysis of geologic, land use, urban development, and other landscape phenomena. The understanding of these materials and of associated tools for their use is presented. (Also offered as GEOG 314; may not be taken for duplicate credit.)

RGPL 316 Introduction to Geographic Information Systems 3c-0l-3cr
Presents automated methods for creating, maintaining, and analyzing spatial data. Includes (1) specialized GIS hardware and software, (2) vector vs. raster vs. object-oriented spatial data structures, (3) creation and manipulation of geographic data files, (4) database design and management concepts, (5) spatial analysis, and (6) cartographic design. (Also offered as GEOG 316; may not be taken for duplicate credit.)

RGPL 333 Trade and Transportation 3c-0l-3cr
Deals with the spatial aspects of transportation systems and their use. Discusses circulation, accessibility, time and distance concepts, and trade patterns. (Also offered as GEOG 333; may not be taken for duplicate credit.)

RGPL 341 Climatology 3c-0l-3cr
Examines the elements of weather and climate on earth. The location and causes of global climatic regions are examined in relation to moving pressure and wind systems. Also considers the climatic history of the planet and recent human modifications of the atmospheric environment. (Also offered as GEOG 341; may not be taken for duplicate credit.)

RGPL 342 Physiography 3c-0l-3cr
Focuses on landform types and their spatial distribution. Emphasizes the tectonic forces that build landforms and the weathering and erosional processes that erode and shape surface features. The relationship between human activities and landforms is also considered. (Also offered as GEOG 342; may not be taken for duplicate credit.)

RGPL 343 Fresh Water Resources 3c-0l-3cr
Focuses on surface and groundwater as a resource with unique properties. Fresh water is defined physically by storage in the hydrologic cycle and the values assigned by different cultures. Problems featured relate to consumptive and withdrawal water uses, the problems of water supply and scarcity, water law and its inconsistencies, flooding and floodplain management, sources of contamination and pollution, wetlands, and case studies of selected river basins. (Also offered as GEOG 343; may not be taken for duplicate credit.)

RGPL 345 Biogeography for Environmental Managers 3c-0l-3cr
Prerequisite: One course from GEOG 341, 342, BIOL 103, 115
Examines the distribution of plants and animals across the earth’s surface, as influenced by natural and human processes. Emphasizes landscape and regional habitat dynamics as they relate to environmental planning and management. Field trips supplement lectures and readings. (Also offered as GEOG 345; may not be taken for duplicate credit.)
RGPL 350 Introduction to Community Planning 3c-0l-3cr
An introduction to the profession and activity of contemporary American urban and regional planning. Emphasizes land use control, design, growth management, and development regulation. The legal and institutional bases of planning practice are covered as well.

RGPL 352 Planning Methods 3c-0l-3cr
Research, analytical design, and plan-making techniques in urban and regional planning. Examines basic items necessary to prepare urban and regional comprehensive plans.

RGPL 358 Planning History and Theory 3c-0l-3cr
Prerequisite: RGPL 350
Provides an overview of the historical development of cities, explores the thinking about urban areas and their evolution over time, and reflects on how both continue to inform the profession of urban planning. Focuses on the social, economic, political, cultural, and technological forces that continually reshape urban form, urban life and urban planning. Examines the evolution of planning theory; major contributors who have influenced the field, current normative, conceptual, methodological issues, and the various roles planners play in practice, and the ethical dilemmas they face.

RGPL 404 Transportation Planning 3c-0l-3cr
Prerequisite: GEOG/RGPL 333 or RGPL 350, or one course from the economic geographer concentration
Introduces the major themes and methods of transportation planning, particularly in an urban context. It is project oriented and supported by readings from the scholarly literature covering themes such as modes of transit, land use implications, and commercial development. Reading assignments are organized topically and coordinated with two workshop projects that develop applied skills. Topics include theory, empirical description, and methodological practice. (Also offered as GEOG 404; may not be taken for duplicate credit.)

RGPL 410 Community Participation and Civic Engagement Seminar 3c-0l-3cr
Prerequisite: RGPL 350
Introduces recent participatory planning and civic renewal initiatives within “communities of place” in the United States. Particular attention is directed toward understanding how planners, citizens, community-based organizations, and local institutions engage in the public work of civic creativity, asset mobilization, and community development. Participatory planning techniques and community facilitation tools are discussed and demonstrated. Civic associations in Indiana County and southwest Pennsylvania are highlighted as cases.

RGPL 415 Introduction to Remote Sensing 3c-0l-3cr
Introduces concepts, principles, methods, and theories applied in and through remote sensing of the earth’s physical and cultural features. Includes understanding the physical principles of the electromagnetic spectrum, the technological underpinnings of a variety of sensors, and applications of these technologies. Applies industry standard software packages in the geospatial sciences to illustrate course concepts and build software recognition and application skills. (Also, offered as GEOG 415; may not be taken for duplicate credit.)

RGPL 424 Technical Issues in Geographic Information Systems 3c-0l-3cr
Prerequisite: RGPL 316 or 419
Uses project-based approach to develop and maintain a geographic information system (GIS). Designs and implements functional systems through cooperative learning. Covers methods for designing GIS to user specification, data collection, data input, project management, and system documentation. (Also offered as GEOG 424; may not be taken for duplicate credit.)

RGPL 426 Environmental Land Use Planning 3c-0l-3cr
Prerequisite: RGPL 350 recommended
Reviews and instructs principles, techniques, and applications for the environmental land use planning process. Focuses on surface water and deals with topics such as land use, stream monitoring, stream conservation and restoration, and watershed management. Students who complete the course are exposed to environmental planning legislation and policy, best management practices, and applied techniques.

RGPL 427 GeoDesign Prerequisite: GEOG/RGPL 424
Provides an introduction and application of the theory and techniques of the geodesign framework. Involves data-driven decision making for collaborative community development and land-use planning and is an emerging conceptual framework for place-based decisions and designs. Integrates knowledge of community planning, decision making, landscape design, and geospatial techniques to produce a professional quality project. (Also offered as GEOG 427; may not be taken for duplicate credit.)

RGPL 440 Conservation: Environmental Analysis 3c-0l-3cr
Prerequisite: RGPL 350, 353 or instructor permission
Expands beyond basic principles of remote sensing to understand and apply complex methods of data collection, normalization, and analysis. May cover radiometric normalization, spectral transformations, change detection, object oriented classification, spatial analysis and filtering, accuracy assessment, and application of learned techniques. A research intensive experience with a project and paper demonstrating acquired knowledge and application of techniques to a variety of physical and human processes. (Also offered as GEOG 455; may not be taken for duplicate credit.)

RGPL 453 Planning Design Studio I 3c-0l-3cr
Introduces professional graphic communications. Emphasizes the use of 2-D computer-aided design (CAD) applications, plan graphics, and professional standards to represent and solve basic physical planning problems.

RGPL 454 Planning Design Studio II 3c-0l-3cr
Prerequisites: RGPL 350, 353 or instructor permission
Introduces the activity of design, design programming, design decision making, and design communications. Focuses specifically on the development of site planning, site analysis, and design skills as well as the translation of design program elements into physical form.

RGPL 455 Advanced Remote Sensing 3c-0l-3cr
Prerequisite: GEOG/RGPL 415
Introduces principles of land use law. Focus is on federal constitutional principles and key Supreme Court cases, especially as they relate to actions of local units of government and municipal planning practice. Deals with the present state of land use law and with current trends and issues.

RGPL 462 Planning Policy, Implementation, and Administration 3c-0l-3cr
Prerequisite: RGPL 458
Focuses on the planning and implementation of policies to manage the location, timing, type, and intensity of land development. Explores the multi-step process from community plan to project completion. Exposes students to the public environment in which community plans are developed and implemented and walks them through the real-world problems of identifying projects, building agency and interagency consensus, finding funding, putting together a project plan, project management, personnel, and budget to project completion. (Also offered as GEOG 462; may not be taken for duplicate credit.)

RGPL 468 Planning Theory 3c-0l-3cr
Prerequisite: RGPL 412
A seminar on contemporary debates concerning planning traditions, principles, and practices. The activity of planning is investigated from several theoretical frames and analytic positions.

RGPL 470 Housing and Community Development Policy 3c-0l-3cr
Examines a range of issues relating to U.S. housing and community devel-
opment policy, including the role housing plays in building and strengthening neighborhoods and communities. Covers the structure of housing and related financial markets as well as the economic and social bases for government to intervene in these markets.

**RGPL 493 Internship**  
*var-1-12cr*
A professional learning experience with emphasis on application of academic background. Open to majors and minors in regional planning with a total of 60cr and 15cr in the major. See internship supervisor for additional information.

**RGPL 498 Community Planning Practicum**  
*3c-0l-3cr*
**Prerequisite:** RGPL 352
This senior seminar and workshop constitute a capstone course that focuses on recent research in the major field. Students carry out an applied research project on a topic of local or regional importance. (Also offered as GEOG 498; may not be taken for duplicate credit.)

**RLST: Religious Studies**  
**Department of Religious Studies**  
**College of Humanities and Social Sciences**

**RLST 100 Introduction to Religion**  
*3c-0l-3cr*
An introduction to the academic study of religion through an examination of various dimensions of religious expression and traditions. Will cover such areas as problems about definition of religion; approaches to the study of religion; the goals, language, and rituals of religion; cases of religious experience; faith, disbelief, and alternatives to religion; religion and the sociocultural context.

**RLST 110 World Religions**  
*3c-0l-3cr*
A comparative study of the history, teaching, and rituals of the major religions of the world and their influence on contemporary society. This non-sectarian approach to religions emphasizes comparisons/contrasts between Western and non-Western religious traditions as well as the contemporary global nature of Western traditions.

**RLST 114 Biblical Hebrew I**  
*3c-0l-3cr*
Enables students to read the prose of Biblical Hebrew or Classical Hebrew—that is, the major language in which the Hebrew Bible/Old Testament was written during the first millennium B.C.E. By learning the fundamentals of Biblical Hebrew grammar and vocabulary, students thus acquire the tools and skill to do translation of this important ancient text for themselves. (Also offered as CRLG 114; may not be taken for duplicate credit.)

**RLST 164 Biblical Hebrew II**  
*3c-0l-3cr*
**Prerequisite:** RLST/CRLG 114
A continuation of Biblical Hebrew I with the same objective: to enable students to read the prose of Biblical Hebrew or Classical Hebrew. By learning the fundamentals of Biblical Hebrew grammar and vocabulary, students thus acquire the tools and skill to do translation of this important ancient text for themselves. (Also offered as CRLG 164; may not be taken for duplicate credit.)

**RLST 245 Women and Religion**  
*3c-0l-3cr*
**Prerequisite:** RLST 110 or instructor permission
Examines women’s roles and experiences within some of the world’s major religious traditions, both past and present. In exploring patterns and instances of the empowerment and oppression of women, the course pays careful attention to feminist critiques.

**RLST 300 Methodologies of Religious Studies**  
*3c-0l-3cr*
**Prerequisites:** Religious Studies major or minor
Introduces students to the theories and methods of the study of religion, including phenomenological, historical, sociological, anthropological, psychological, ecological, feminist, and postmodern approaches. Restricted to majors and minors in Religious Studies.

**RLST 311 Eastern Philosophy**  
*3c-0l-3cr*
An examination of texts from East Asia and South Asia that address such philosophical areas as the nature of human knowledge, the nature of reality, and ethics. May include readings from such traditions as Buddhism, Confucianism, Daoism, and/or Hinduism.

**RLST 329 Philosophy of Religion**  
*3c-0l-3cr*
Critically examines temporally and culturally diverse understandings of the human religious impulse. Considers theories regarding the sacred and the existence of divinity, the meaning of being human, the interactions of culture and religious interpretations of human experience, good and evil, authority, knowledge, and ethical responsibility.

**RLST 345 Women in the Bible**  
*3c-0l-3cr*
**Prerequisite:** One religious studies course or women and gender studies course or instructor permission
Surveys and examines the stories and issues concerning women in the Bible and introduces the questions and methods of research that the contemporary world and feminist biblical scholars bring to them.

**RLST 360 African Religions**  
*3c-0l-3cr*
**Prerequisite:** One religious studies or womens and gender studies course or instructor permission
An examination of the nature of African traditional religion and how traditional religion, Islam, and Christianity coexist and influence one another.

**RLST 365 Native North American Religions**  
*3c-0l-3cr*
**Prerequisite:** One religious studies or womens and gender studies course or instructor permission
An introduction to the indigenous religions of North America and to the peoples who practice these rich and varied approaches to the sacred. Not only examines major religious themes and dimensions (myth, ritual, ethics, etc.), but includes a historical perspective on Native North American lifeways. This perspective involves discussion of the clash with Euro-American values and contemporary Native religious responses to social crisis and change. (Also offered as ANTH 365; may not be taken for duplicate credit.)

**RLST 370 Religions: China and Japan**  
*3c-0l-3cr*
A study of Daoism, Buddhism, Shinto, and other religious traditions that have played an important role in the history of China and/or Japan. Considers the various traditions’ histories, doctrines, forms of practice, and contemporary expressions.

**RLST 374 Buddhism**  
*3c-0l-3cr*
Explores the history, teachings, and practices of the main schools of Buddhism. Considers the tradition both as it has developed in Asia as well as its modifications as it has been introduced into Western societies. (Titled Buddhist Thought and Practices before 2013-2014.)

**RLST 375 Religions of India**  
*3c-0l-3cr*
A study of Islam including historical and theological foundations, developments of thought, contemporary expressions, and encounters with the modern world.

**RLST 376 Hinduism**  
*3c-0l-3cr*
Provides a broad understanding of key developments, concepts, and practices in Hinduism. Includes religious texts, various sects, myths, and rituals. Addresses Hindu politics as tied to diasporic and global communities.

**RLST 380 Islam**  
*3c-0l-3cr*
An introduction to and basic survey of the history, beliefs, traditions, institutions, and practices of Islam, with attention to its development and participation in contemporary societies globally.

**RLST 385 Christianity**  
*3c-0l-3cr*
A study of the beliefs, practices, significant people, history, and cultural impact of Christianity.

**RLST 388 Interpreting the Bible**  
*3c-0l-3cr*
Introduces the sacred writings known as the Bible. Examines the basic contents and major themes of the books of the Bible (Hebrew Bible/Old Testament and New Testament), as well as the goals and methods of the most recent scholarship in biblical studies.

**RLST 401 Topics in Abrahamic Traditions**  
*3c-0l-3cr*
**Prerequisites:** Religious Studies major or minor, or permission of the instructor
Examines a variable topic within the study of Judaism, Christianity and Islam. Themes vary according to the expertise of the Religious Studies faculty member offering the course. May be repeated.
RLST 402 Topics in Asian Religions  3c-0l-3cr
Prerequisites: Religious Studies major or minor, or permission of the instructor
Offers advanced study of rotating topics in Asian religions. The particular tradition or theme covered varies according to the expertise of the faculty member teaching the course.

RLST 403 Topics in Indigenous Religions  3c-0l-3cr
Prerequisites: RLST major or minor permission of the instructor
Offers rotating topics in prehistorical, historical and contemporary indigenous religions by alternating professors in the Department of Religious Studies. Topics may include “Anishnaabeg (Ojibwe) Religion,” “Viking Myth and Religion,” and “Haitian Vodou.”

RLST 480 Seminar in Religious Studies  3c-0l-3cr
Prerequisite: Religious studies students or instructor permission
An advanced forum for detailed exploration of a single topic or single author, subject to instructor’s choice. Enrollment limited to religious studies majors and other students by invitation or permission.

RLST 481 Special Topics  var-1-3cr
Prerequisite: As appropriate to course content
Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 481 are offered primarily for upper-level undergraduate students.

RLST 482 Independent Study  var-1-6cr
Prerequisite: Prior approval through advisor, faculty member, department chair, dean, and Office of the Provost
Individual students wishing to pursue religious studies interests not covered in the department’s regular offering may do so by approval. Upon approval, students are guaranteed at least five hours of faculty time per credit. All programs of study must be accepted by the department as a whole. May be taken more than once to maximum of 6cr. (This option is available to both religious studies majors and nonmajors.)

RLST 482 Independent Study: Honors  3c-0l-3cr
Prerequisites: 3.00 GPA, 15cr in RLST, 3.20 GPA in departmental courses
Majors in religious studies are invited to take 3cr of independent-study-designated Honors Project. Upon satisfactory completion, graduation with departmental honors is possible.

RLST 483 Honors Thesis  var-1-6cr
Prerequisites: Admission to departmental honors program; prior approval through advisor, faculty member, department chair, dean, and Office of the Provost
An intensive, focused study involving independent research culminating in a written thesis approved by a thesis director and two faculty readers/committee members. May be taken more than once to a maximum of 6cr.

RLST 485 Selected Topics in Feminist Studies of Religion  3c-0l-3cr
Prerequisite: One religious studies or womens and gender studies course or instructor permission
Offers rotating topics in feminist studies in religion by alternating professors in the Department of Religious Studies. Such topics may include “Contemporary Feminist Spirituality Movements,” “Godesses in the Ancient Near East,” “Feminist Biblical Scholars and Theologians,” and “Women in Buddhism.”

RLST 493 Internship in Religious Studies  var-3-12cr
Prerequisites: Junior or senior; religious studies major or double major; 2.5 GPA in major; department approval A supervised experience in a public or private organization that extends and complements course work in religious studies.

SAFE 101 Introduction to Occupational Safety and Health  3c-0l-3cr
Introduces the evolution of the safety profession through study of historical events and the changes that resulted. Students gain an understanding of the key components of the profession, such as OSHA and workers’ compensation, accident investigation, occupational health hazards, emergency response, product liability, ergonomics, fleet safety, ethics, and measuring safety program success. Case studies and small group activities prepare students for further in-depth study of these topics and to fulfill their roles as professionals.

SAFE 104 Introduction to Safety in the Natural Gas Industry  3c-0l-3cr
An introduction to safety and health issues in the natural gas industry through the study of historical events and the changes that resulted. Students gain an understanding of key safety and health programs for the natural gas industry, such as OSHA compliance and workers’ compensation, accident investigation, occupational health hazards, emergency response, ergonomics, fleet safety, ethics, and safety program success measurement. Case studies and small group activities prepare students for further in-depth study of these topics and their roles as safety and health professionals.

SAFE 204 Principles of Safety in the Natural Gas Industry  3c-0l-3cr
Prerequisite: SAFE 104
Examines safety, health, fire, and environmental issues in the natural gas procurement process by showcasing the complexity of hazard control. Uses applicable OSHA–promulgated standards, American Petroleum Institute standards, and various consensus standards as a basis for understanding hazards and their control requirements, such as the use of personal protective equipment. Emphasis is given to well site construction, layout and equipment, and hazards associated with gas procurement construction and operations, such as fall potential, confined spaces, fire and explosion, trenching and excavation, and health hazards. Safety program implementation and interaction with enforcement agencies is also highlighted.

SAFE 211 Principles of Safety II—Construction Industry  2c-3l-3cr
Prerequisites: SAFE 101; Safety, Health, and Environmental Applied Sciences majors/minors only or instructor permission
Develops an understanding of hazard recognition, evaluation, prioritization, and control of critical workplace hazards associated with construction. Students are exposed to the complexity of three-dimensional work that exists in the fast-paced construction industry by thoroughly examining elements of safety and health enumerated in the OSHA standards and in various consensus standards. An emphasis is placed on personal protective equipment, electrical safety, scaffolds, fall protection, trenches, and confined space entry including rescue. Practical application of associated hazards and their control strategies is accomplished in laboratory sessions.

SAFE 212 Hazard Prevention Management I  3c-0l-3cr
Prerequisites: SAFE 101; Safety, Health, and Environmental Applied Sciences majors/minors only or instructor permission
Teaches the fundamental concepts involved in the management of safety

SAFE: Safety, Health, and Environmental Applied Sciences
Department of Safety Sciences
College of Health and Human Services

SAFE 100 The Science of Living Safely  3c-0l-3cr
programs. Basic safety management terminology, safety professional code of ethics, fleet safety, and product safety are discussed. Also discusses risk management and workers' compensation, as well as workplace violence.

**SAFE 215 Safety, Health, and Environmental Communications** 3c-0l-3cr
**Prerequisites:** Sophomore standing; Safety, Health, and Environmental Applied Sciences majors/minors only or instructor permission
Provides students with the ability to apply the theories of learning and communication to aid them in becoming effective oral and written safety, health, and environmental communicators and trainers. Students design and deliver training programs using modern technology and charismatic engagement tools. Students learn, both in writing and orally, how to use communication skills to convince management and employees to embrace and implement safety initiatives and to communicate with regulators and the public regarding safety, environmental, and health issues. Students develop a range of written documents, such as safety, health, and environmental policies, procedures and/or programs, inspection and audit reports, and program and risk assessment and exposure reports, and then communicate summaries of these documents orally. (writing-intensive course)

**SAFE 220 Hazardous Materials and Emergency Management** 3c-0l-3cr
**Prerequisites:** CHEM 101, SAFE 101, Safety, Health, and Environmental Applied Sciences majors/minors only or instructor permission
Provides a basic understanding of the storage, transportation, and use of hazardous materials in business. Includes a discussion on hazardous materials, specifically their definitions, categories, properties, regulations, and evaluation. Critical principles of emergency management, including both private and public sector elements, are included.

**SAFE 310 Environmental Safety and Health Regulations and Sustainability** 3c-0l-3cr
**Prerequisite:** CHEM 101, MATH 105 or instructor permission
Provides a working knowledge of federal environmental legislation and its practical application in the work environment. Environmental laws covered include the Clean Water Act; the Clean Air Act; the Resource Conservation and Recovery Act; the Comprehensive Environmental Response, Compensation, and Liability Act; and other related environmental laws. Provides an understanding of the application of sustainability concepts in the work environment.

**SAFE 311 Fire Protection** 3c-0l-3cr
**Prerequisite:** CHEM 101, MATH 105, or instructor permission
Teaches the fundamental concepts involved in the protection of people and property from fire and explosion. Basic fire safety terminology, fire chemistry and extinguishment, fire safety references and standards, and fire program management are discussed. Also discusses control measures for common fire and explosion hazard and the design of buildings in terms of life safety and fire suppression systems.

**SAFE 330 Recognition, Evaluation, and Control of Occupational Health Hazards I** 3c-3l-4cr
**Prerequisites:** CHEM 101, Safety, Health, and Environmental Applied Sciences majors only, PUBH-ENOC majors, or instructor permission
**Prerequisite or Corequisite:** BIOL 104 or 155
Provides an understanding of chemical stressors in the workplace that may present occupational health hazards to workers. Students learn to anticipate, identify, evaluate, and control chemical stressors including dusts, mists, metal fumes, airborne fibers, inorganic and organic gases and vapors, and oxygen-deficient atmospheres. Hazard classification systems, adverse health effects from excessive exposures, workplace standards, sampling and analytical methods, and control options are emphasized.

**SAFE 331 Fundamentals of Industrial Hygiene** 3c-0l-3cr
**Prerequisites:** Restricted to MS Safety Sciences students only; or by instructor permission only.
Provides an understanding of selected chemical, physical, and biological stressors in the workplace that may present occupational health hazards for workers. Focuses on anticipating, identifying, evaluating, and controlling chemical, physical and biological stressors in the workplace. Emphasizes adverse health effects from excessive exposures, workplace standards, sampling and analytical methods, and control options.

**SAFE 335 Industrial and Environmental Stressors** 2c-0l-2cr
**Prerequisites:** BIOL 104 or 155, CHEM 101
Focuses on understanding and applying safety, regulatory, toxicological, environmental, and epidemiological information, data, and models to determine occupational risk from exposure to common industrial and environmental stressors. Also covers product safety risk from consumer exposure to manufactured products. Case studies act as important means for presenting and discussing information.

**SAFE 345 Process and Systems Safety** 3c-0l-3cr
**Prerequisites:** MATH 105 and SAFE 111 or instructor permission
Focuses on the evaluation of system designs using detailed system analysis techniques. Topics include system definition, economics of systems safety, quantitative and qualitative systems safety methodology, and systems safety/process safety program administration. Skills gained include the ability to perform hardware and human factors systems analysis. Techniques include failure mode and effect analysis, hazard and operability studies, what-if and scenario building, and operating and support hazard analysis. Practical analysis work is accomplished through in-class discussion, demonstration sessions, and homework assignments.

**SAFE 346 Fundamentals of Ergonomics** 3c-0l-3cr
**Prerequisites:** Restricted to MS Safety Sciences students only or by instructor permission
Explores the fundamental principles of human performance and its effect upon the safety and reliability of systems. Examines risk factors in workplace design associated with force, repetition, and posture using anthropometrics, biomechanics of motion, work physiology and human performance. Teaches ergonomic methods that analyze these risk factors.

**SAFE 347 Applied Ergonomics** 2c-3l-3cr
**Prerequisite:** Safety, Health, and Environmental Applied Sciences majors only or instructor permission
**Prerequisite or Corequisite:** BIOL 104 or 155
Explores the principles that control human performance and its effect on the safety and reliability of systems. Engineering anthropometrics, human perception, biomechanics of motion and work posture, work physiology, and human performance measurement are taught in the context of their application in workplace design. Instructs in methodologies for analysis of tasks and human performance requirements. Important human limitations and ergonomic hazard evaluations, such as lifting and repetitive motion tasks, are studied in laboratory sessions.

**SAFE 361 Air and Water Pollution** 2c-0l-2cr
**Prerequisite:** SAFE 220, or PUBH-ENOC majors, or instructor permission
Focuses on major aspects of industrial air and water pollution management. Includes sources and analysis of industrial air and water pollution, evaluation and control of air and water pollutants, and atmospheric and water chemistry. Particular emphasis is placed on information that is practical for the safety management, industrial health, or environmental health professional.

**SAFE 412 Hazard Prevention Management II** 2c-3l-3cr
**Prerequisite:** SAFE 212
Teaches a systems-based approach to managing safety programs, hazards, and risk. An emphasis is placed on understanding proactive approaches to conducting pre-hazard and life-cycle safety analyses of activities/operations and developing safety system documentation (e.g., policies, objectives, goals, performance measures, plans, committee charters, safety procedures, work procedures, audit plans, and accident investigation reports).

**SAFE 430 Recognition, Evaluation, and Control of Occupational Health Hazards II** 3c-3l-4cr
**Prerequisites:** BIOL 104 or 155, PHYS 111 or CHEM 101 (for PUBH-ENOC majors), Safety, Health, Environmental Applied Sciences majors, PUBH-ENOC majors only, or instructor permission
Provides an understanding of selected physical and biological stressors in the workplace that may present occupational health hazards to workers.
Students learn to anticipate, identify, evaluate, and control physical and biological stressors in the workplace. Emphasizes adverse health effects from excessive exposures, workplace standards, sampling and analytical methods, and control options. Concludes with discussions that focus on the effective development and implementation of a comprehensive safety and health program.

SAFE 435 Ethics and Professionalism 1c-0l-1cr
Prerequisite: Senior standing
Provides a basic understanding of ethics and professionalism related to the occupational safety, health, and environmental profession. Specific topics include the ASSE Code of Ethics, ethical dilemmas that may be experienced in the workplace, expectations regarding professional behavior on internship, and professional growth. Students also learn about safety, health, and environmental professional organizations and certification bodies.

SAFE 480 Senior Capstone Project 3c-0l-3cr
Prerequisites: At least 90 credits and SAFE 310, 311, 330, 335, 345, 347, 361
Applies hazard assessment and safety management practices as they relate to the recognition, evaluation and control of hazards. Involves faculty supervised activities that include case studies conducted on-site or at off-site workplace locations.

SAFE 488 Internship 12cr
Prerequisites: Senior standing, all required safety sciences courses. Student conducts a practicum at an approved occupational setting. Student is required to complete four major projects that will be developed in collaboration between the faculty supervisor and the internship supervisor. Student is accountable to an on-site supervisor and required to remain in close contact with a Safety Sciences faculty coordinator.

SAFE 493 Internship 6cr
Prerequisites: Senior standing, all SAFE courses completed. Applies hazard assessment and management practices to actual workplace safety issues. A two-hour weekly debriefing session involves the students in developing their written and oral communication skills.

SCI: Science
Kopchick College of Natural Sciences and Mathematics

SCI 101 Fundamentals of Physics 2c-2l-2.5cr
Prerequisite: Early Childhood Education or Early Childhood Education or Early childhood education/special education major or instructor permission
A conceptual course in physics for the non-science major. High school physics is not a prerequisite. Class and lab presentations concentrate upon dispelling naive concepts and developing a better understanding and appreciation of the physical world. The topics of motion, heat, light, sound, electricity, magnetism, and the atom are presented in context with our everyday experiences. Does not fulfill the Liberal Studies requirement except for majors for early childhood education or early childhood education/special education major.

SCI 102 Fundamentals of Chemistry 2c-2l-2.5cr
Prerequisite: Early Childhood Education or Early Childhood Education/ Special Education major or instructor permission
Surveys chemical principles and concepts for pre-service early childhood/ special education majors. A variety of chemical concepts is presented, as well as their applications to technology and society. A series of laboratory exercises and projects will allow student to develop inquiry-based activities for the communication of scientific and chemical concepts with the goal of developing scientific literacy.

SCI 103 Fundamentals of Earth and Space Science 2c-2l-2.5cr
Prerequisite: Early Childhood Education/Special Education major
Earth science course for early childhood education/special education (ECSAP) majors. Introduces concepts and applications of astronomy, geology, oceanography, and meteorology. Includes both lecture and laboratory components with an emphasis on how the earth sciences impact the natural environment. Does not fulfill the Liberal Studies requirement except for majors in early childhood education/special education major.

SCI 104 Fundamentals of Environmental Biology 2c-2l-2.5cr
Prerequisite: Early Childhood Education/Special Education major or instructor permission
Introduces the major concepts and principles of ecology and their application to modern living. Includes lecture and laboratory components with an emphasis on the content and processes of science. Laboratory exercises reinforce lecture topics as well as the use of laboratory equipment, measuring procedures, experimental design, and the organization, visual representation, and analysis of data.

SCI 105 Physical Science I 3c-2l-4cr
A descriptive and conceptual course in physics for the non-science major. High school physics is not a prerequisite. Content is designed to develop an understanding and appreciation of the physical world around us, to produce changes in attitude and background essential for our modern society, and to clarify the following topics: motion, heat, sound, light, electricity, magnetism, and the structure of matter.

SCI 106 Physical Science II 3c-2l-4cr
A basic course in environmental and consumer chemistry for the non-science major. High school chemistry is not a prerequisite. Major topics include humankind's use and abuse of soil, water, air, and energy resources, global food production and hunger, the nuclear industry, and the threat of nuclear war. Consumer topics include vitamins and nutrition, food additives, pesticides, and drugs.

SCI 107 Chemistry for Everyone 3c-0l-3cr
A basic course in chemistry for the non-science major. High school chemistry is not a prerequisite. The students develop an understanding and appreciation of the process of science and of the significance of chemistry in everyday life. In addition to basic chemical principles, consumer topics, such as batteries, nuclear chemistry, chemistry of living systems, air, water, energy, and food additives, are covered.

SCI 113 Physics in Science Fiction 3c-0l-3cr
Explores the use and abuse of physics in science fiction. Discusses staples of science fiction including time travel, faster-than-light speed travel, quantum mechanics and artificial gravity. Examines the agreement between phenomena presented in fiction and our current model of the universe. Reviews popular, current science fiction franchises as well as classical science fiction.

SCI 117 Chemistry for Everyone Laboratory 0c-2l-1cr
Prerequisite: Must be taken after or concurrent with SCI 107
A basic laboratory course in chemistry for the non-science major. Laboratory exercises are for the students to develop an understanding and appreciation of the process of science and of the significance of chemistry in everyday life. These laboratory exercises will demonstrate basic chemical principles and will include consumer topics, such as acids and bases, nuclear chemistry, water hardness, and food additives.

SOC: Sociology
Department of Sociology
College of Humanities and Social Sciences

SOC 151 Principles of Sociology 3c-0l-3cr
A scientific study of the structure of human societies and the behavior of individual people and groups in society. Examines the relationship between individuals and societal institutions, processes, and interactions. Provides an overview of the discipline including key concepts, main theoretical perspectives, the methods and research findings of sociologists, and social inequalities. Meets Social Science requirement for Liberal Studies. SOC 151 and 161 may be substituted interchangeably as prerequisites only. SOC 151 and 161 cannot be substituted interchangeably for D/F repeats and may not be used for duplicate credit.

SOC 161 Foundations of Sociology: Social Relations in Groups and Organizations 3c-0l-3cr
Studies the structure of human societies and the behavior of individual people, groups, and teams in society. Examines the relationship between individual and societal institutions, processes, and interactions with emphasis on the ways power/status are reflected. Explores the relationship between
individual identity and team dynamics as it pertains to race, gender, class, sexuality, ability, and age while relating to the methods and research findings of sociologists. Applies decision making and problem solving as members of small teams work to achieve a shared objective within a larger organizational context. For those seeking a minor in Professional Teamwork and Leadership. SOC 161 is required for the Effective Teamwork and Communication minor. Meets Social Science and Global and Multicultural Awareness requirements for Liberal Studies. SOC 151 and 161 may be substituted interchangeably as prerequisites only. SOC 151 and 161 cannot be substituted interchangeably for D/F repeats and may not be used for duplicate credit.

**SOC 231 Contemporary Social Problems** 3c-0l-3cr

Using a sociological perspective, this course will examine pressing social problems as they relate to race, class, and gender in contemporary American society. Such problems may include various issues such as poverty, delinquency, substance abuse, crime, divorce, and others. These issues are considered through multiple lenses, including historical, economic, and social, with connections to current social policy.

**SOC 251 Sociology of Human Sexuality** 3c-0l-3cr

An in-depth analysis of a formerly taboo topic, human sexuality. Current information from biological, psychological, and sociological research on human relationships is presented to provide a foundation for self-understanding and societal values.

**SOC 269 Sociology of Deviance** 3c-0l-3cr

Prerequisite: SOC 151 or 161 or instructor permission

An overview of the sociological study of deviance. Begins with examining the nature and meaning of deviance or how society creates deviance as social and legal constructions and identifies specific human behaviors as types or forms of deviance. Also examines the major theories or multi-causal explanations of why such deviance occurs. Further describes how society, especially its social institutions and agents, attempts to control or suppress such deviance. Social policy implications of such societal reactions are also considered.

**SOC 281 Special Topics** var-1-3cr

Prerequisite: As appropriate to course content

Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 281 are offered primarily for lower-level undergraduate students.

**SOC 300 Skills for Using Sociology in Your Career and Community** 3c-0l-3cr

Prerequisite: SOC 151 or 231

Develops a variety of skills that sociologists bring to the workplace, including research literacy, application of theory and research, and professional writing. Explores the wide range of careers and other endeavors to which these skills may be applied. Utilizes concrete activities and practical use of knowledge and skills that will aid in future coursework, and in making valuable contributions to organizations in the public, private, and nonprofit sectors.

**SOC 314 Sociology of Native Americans** 3c-0l-3cr

An introduction to the history, “traditional” cultures, and changes brought by European settlement and American conquest and the growth of social issues faced by contemporary Native Americans on and off reservations. A special emphasis is placed on the efforts of indigenous Indian societies to maintain and regain access to land and other resources. Activist responses are considered along with the social consequences of past and present initiatives and policies.

**SOC 320 Sociological Theory** 3c-0l-3cr

Prerequisites: SOC 151 or 161; second-semester sophomore standing

A detailed survey of the historical development of sociological theory from the mid-19th century to the present. Treats the classical theorists Marx, Durkheim, and Weber and such contemporary theoretical schools as functionalism, Marxist, and Weberian conflict theory, cultural materialism, social evolutionism, rational choice theory, symbolic interaction, ethnomethodology, sociobiology, structuralism, and postmodernism. Students are encouraged to take this course in the second semester of their sophomore year or during their junior year.

**SOC 333 Delinquency and Youth** 3c-0l-3cr

Prerequisite: SOC 151 or 161

A study of social and cultural factors involved in various youth lifestyles, including delinquency. Cross-cultural and historical approach used in a review of social norms, social control, and socialization institutions and community-based programs for rehabilitation.

**SOC 335 Alcohol and Drug Abuse** 3c-0l-3cr

Prerequisite: SOC 151

Examines the social issues and problems of alcohol and drug misuse in American society. Legal and illegal substances are considered, and the causes of substance abuse as well as alternatives are examined.

**SOC 336 Sociology of the Family** 3c-0l-3cr

Prerequisite: SOC 151 or 161

A study of family dynamics and patterns using sociological research methods and theories. Examines social, cultural, and historical changes that have altered the nature of family life and created challenges for public policy. Addresses contemporary problems and issues encountered by families and approaches to dealing with these problems.

**SOC 337 Society, Globalization, and Risk** 3c-0l-3cr

Prerequisite: One of the following: ANTH 110, ECON 101, 121, GEOG 230, HIST 202, PLSC 101, 282, SOC 151, 161

Examines the factors driving globalization, and the risks associated with globalisation, on both a local and international level. Foundations for thinking in global terms are provided through an overview of historical developments and major international actors that have shaped current global society. Focuses on major challenges and risks facing global society. Throughout, students are encouraged to connect their own personal life experiences to the broader global context. (Titled World Societies and World Systems before 2014-15.)

**SOC 341 Sociology of Education** 3c-0l-3cr

Prerequisite: SOC 151 or 161

Examines the place of education in society. Special attention is given to the development of education in America and its relation to political and economic phenomena. Some attention is given to education in other industrial and agrarian societies.

**SOC 345 Sociological Social Psychology** 3c-0l-3cr

Prerequisite: SOC 151 or 161

Explores how individuals are shaped through our interpersonal, group, organizational, and structural ties to other people as well as how we shape and recreate society through those same ties. Focuses on sociological perspectives, debates and studies of individuals and social life germane to subject area of sociological social psychology including symbolic interaction, group processes, and social structure and personality perspectives.

**SOC 348 Sociology of Work** 3c-0l-3cr

Prerequisite: SOC 151 or 161

Focuses upon the sociological examination of the various forms of labor, employment, and unemployment present in industrial societies. Examines the nature of work and unemployment in the modern era and how these forms are being transformed in the present period.

**SOC 352 Sociology of Religion** 3c-0l-3cr

Prerequisite: SOC 151 or 161

Nature, role, and function of religious phenomena in human societies are explored with special attention to certain critical issues as they relate to religion and politics and religion and economics. Examines some fundamental modes of religious life, including ritual forms and mythic expressions. Includes other themes such as revitalization movements and processes of secularization in modern societies.

**SOC 357 Sociology of Aging and the Life-course** 3c-0l-3cr

Prerequisite: SOC 151 or 161
An introduction to the various problems faced in the process of growing older including ageism, social support, elder abuse, financial exploitation, etc. Attitudes of society toward the elderly and the social and cultural impact of an aging US population are examined.

**SOC 361 Social Stratification**  
*Prerequisite: SOC 151 or 161*  
Examines leading perspectives in the major sociological subfield of social stratification. Attention drawn to different ways of ranking people in human societies, issues concerning the distribution of income and wealth, the role of political power in determining who gets what, and the causes and consequences of social inequality for specific groups.

**SOC 362 Racial and Ethnic Minorities**  
*Prerequisite: SOC 151 or 161*  
Examines from a historical and comparative perspective the experiences of minority groups, with special emphasis on economic and political domination, stereotyping, prejudice, and discrimination. Techniques of majority group domination and the responses of minority groups are discussed. Various reasons for the different rates and patterns of assimilation are explored.

**SOC 363 Sociology of Gender**  
*Prerequisite: SOC 151 or 161*  
Explores current perspectives on the situations faced by women and men primarily in the United States. Examines issues such as the impact of sex and gender on socialization, the construction of knowledge, intimate relationships, paid work, family relationships, health, and issues of change.

**SOC 367 Social and Cultural Change**  
*Prerequisite: SOC 151 or 161*  
An exploration of current theoretical perspectives on social and cultural change. Special attention given to planned change at the local or regional level.

**SOC 391 Foundations of Sociological Practice**  
*Prerequisite: SOC 151 or 161*  
Develops an understanding of how to use micro and macro sociological theory to analyze, assess, and diagnose human problems. Employing case studies, prepares students to do casework and to help solve interpersonal, group, and organizational problems. Also seeks to acquaint students with the broader professional activity of human services. Recommended prerequisite/corequisite SOC 320.

**SOC 392 Clinical Sociological Practice**  
*Prerequisite: SOC 391*  
Prepares the student to effect constructive change within individuals, groups, families, and communities. Draws its analysis, diagnosis, and methods from the foundations of sociological theory at the level of intervention with clients. It is strongly recommended that students have at least 6 SOC credits in their specialized area before taking SOC 392 other than SOC 151, 320, 460, and 461.

**SOC 410 Men and Masculinities**  
*Prerequisite: SOC 151 or 161 or instructor permission*  
Explores constructs of masculinity within the context of US culture using a sociological lens. Examines the notion that there are multiple masculinities that intersect with a range of areas including race, ethnicity, class, sexuality, and gender identity. Evaluates the influence of social contexts and roles on behavioral expectations for men and boys. Analyzes implications for society and individual men.

**SOC 417 Global Service Learning**  
*Prerequisites: SOC 151 or 161 or instructor permission*  
A forum for critical reflection on community-driven service, cross-cultural experiences, and global citizenship. Progresses through a framework, which explicitly links personal experience and readings with regular writing assignments in a journal and class discussion. Reflects on both the purposes of their service work as well as on its limits as a response to specific needs within the community, and more general problems of social justice. Through the experience of interaction and reflection, students learn to apply knowledge and skills in the real world, exercise critical thinking, develop self-learning and helping skills, develop societal knowledge and sensitivity, and enhance personal development. Explores issues of social responsibility and citizenship in relation to the social problems with which they become acquainted through their community work.

**SOC 421 Sociology of Mass Media**  
*Prerequisite: SOC 151 or 161*  
Examines the development of mass media as dominant cultural forms within advanced industrial societies in the 21st century. Emphasizes critical understanding of the sociohistorical development, the underlying assumptions, and the social implications of the advance of mass media.

**SOC 427 Social Perspectives on Intimate Partner Violence**  
*Prerequisite: SOC 151 or 161*  
Considers the range of theoretical explanations from a social perspective for the pervasive violence between intimate partners. Particularly examines the research on intimate partner violence and the implications of this research for programs and policies assisting both the victim and the abuser.

**SOC 428 Child Abuse**  
*Prerequisite: SOC 151 or 161*  
Examines the prevalence, causes, and social implications of physical, sexual, emotional, and neglect forms of child abuse in society. Child abuse is studied from the individual, family, and societal-level perspectives. Potential intervention strategies will also be considered.

**SOC 442 Medical Sociology**  
*Prerequisite: SOC 151 or 161*  
A review of medical sociology. Focuses on the sociological examination of health, illness, and healing; health inequalities; medicalization; medicine as a profession; healing occupations; interactions within medical settings; the social organization of health services; and bioethics. Examines current, major issues in public policy and healing. (Offered as SOC 342 prior to 2015-16.)

**SOC 448 Social Welfare Policy**  
*Prerequisite: SOC 151 or 161*  
Focuses on the formation of social welfare programs in the United States, current social policy issues, and debates between conservative, liberal, and social democratic policy analysts. Special attention drawn to various social problems and a range of social policies designed to ameliorate the economic disadvantages of single individuals, single parents, and two-parent families. Also devoted to understanding the relationship between social policy, research, and implementation.

**SOC 450 Health Disparities**  
*Prerequisite: SOC 151 or ANTH 211 or instructor permission*  
Explores health status and healthcare disparities across groups based on race/ethnicity, gender, socioeconomic status/social class, nativity, refugee and citizen status, and other cultural and demographic characteristics. Uses a social determinants of health perspective to consider how social, cultural, environmental, political, and economic conditions produce unequal and inequitable health outcomes, with special focus on disadvantaged populations. Addresses agency and empowerment of populations seeking and accessing health and healthcare. Includes different levels of public health interventions that can improve health outcomes, better calibrate access to healthcare, and improve health equity within populations. (Also offered as ANTH 450; may not be taken for duplicate credit.)

**SOC 452 Disability and Society**  
*Prerequisite: SOC 151 or 161*  
Analyzes disability from a sociological perspective. Includes consideration of historical and current views of disability and a review of related concepts from the fields of medical sociology and the sociology of deviance. Also includes an analysis of the effects of disabilities on individuals and families through the life course and a consideration of related ethical, economic, political, and social policy issues. Emphasizes disability as a social construction.

**SOC 454 Dimensions of Rural Public Health**  
*Prerequisite: SOC 151 or 161*  
Explores historical and current views of disability and a review of related concepts from the fields of medical sociology and the sociology of deviance. Also includes an analysis of the effects of disabilities on individuals and families through the life course and a consideration of related ethical, economic, political, and social policy issues. Emphasizes disability as a social construction.
Prerequisite: SOC 151 or 161
Studies health disparities in rural areas and public health interventions to address those disparities. Includes social, economic, political, and cultural influences that impact the health of individuals and families in rural settings, as well as the strategies for improving health status through culturally appropriate and effective interventions and services. Considers the impact of race, gender, and sexual orientation on health status and access to services in rural regions.

**SOC 456 Field Research Methods** 3c-0l-3cr
**Prerequisite:** SOC 460 or permission
An examination of methods and practice of sociology and anthropology in the areas of qualitative and field methods. Concentrates upon the development of field notes, interviewing techniques, participant observation, etc. Qualitative methods of sampling and analysis includes theoretical sampling and analytic induction. Brief background research into community, organizational, and group structure will also be emphasized.

**SOC 458 Political Sociology** 3c-0l-3cr
**Prerequisite:** SOC 151 or 161
An examination of the social context of power and politics, with special reference to such topics as who controls the state and state policy; the role of the state in stabilizing capitalism and protecting the power of the upper class; political activities of the middle and upper classes; and labor, civil rights, and welfare rights social movements in America. Especially considers the problems of conducting and implementing social policy research for social change. Cross-listed as PLSC 346.

**SOC 460 Social Research Methods I** 3c-0l-3cr
**Prerequisites:** SOC 320, junior standing
First in a two-course methods sequence. Examines diverse research designs used in the social sciences, i.e., survey, field study, experiment, documentary, and existing statistical data. Focuses both on logic and practice of social research. Student develops a research design to be implemented in the second course in the research sequence.

**SOC 461 Social Research Methods II** 3c-0l-3cr
**Prerequisites:** SOC 460, junior standing
Second in a two-course methods sequence. Student implements the research project developed during the first course in this sequence. Primarily applied research, and students use the semester to collect and analyze their data and to prepare a final research report on their findings.

**SOC 481 Special Topics** var-1-3cr
**Prerequisite:** As appropriate to course content
Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic only no more than three times. Special topics numbered 481 are offered primarily for upper-level undergraduate students.

**SOC 482 Independent Study** var-1-3cr
**Prerequisites:** Prior approval through advisor, faculty member, department chair, dean, and Office of the Provost
An opportunity to engage in an in-depth analysis of some topic through consultation with a faculty member. A semester project ordinarily expected. Approval is based on academic appropriateness and availability of resources.

**SOC 483 Honors Thesis** var-1-6cr
**Prerequisites:** Admission to departmental honors program; prior approval through advisor, faculty member, department chair, dean, and Office of the Provost
An intensive, focused study involving independent research culminating in a written thesis approved by a thesis director and two faculty readers/committee members. May be taken more than once to a maximum of 6 credits.

**SOC 493 Internship in Sociology** var-3-12cr
**Prerequisites:** Prerequisites vary by track. Permission of internship coordinator required. GPA within SOC of 2.5 or better.
**Human Services Track Prerequisites:** Grade of “C” or better in SOC 151 or 161, 320, 391, 392, and 6 cr within substantive area

**General Sociology Track Prerequisites:** Grade of “C” or better in SOC 151 or 161, 320, 361 or 362 or 363, and 9 cr within substantive area.
Students who wish to intern in a human services agency must take SOC 391 and 392.

**Applied Social Research Track Prerequisites:** Grade of “C” or better in SOC 151 or 161, 320, 460, 461, and 6 cr within substantive area

**Sociology of Disability Services Track Prerequisites:** Grade of “C” or better in SOC 151 or 161, 320, 391, 392, 452, EDEX 111
A supervised experience in a public or private organization that extends and complements course work at the university.

**SOWK: Social Work**
Department of Sociology
College of Humanities and Social Sciences

**SOWK 238 Introduction to Social Work** 3c-0l-3cr
**Prerequisite:** ANTH 110 or SOC 151 or 161
An introduction to the dynamics of helping relationships.

**SPAN: Spanish**
Department of Foreign Languages
College of Humanities and Social Sciences

**SPAN 101 Elementary Spanish I** 4c-0l-4cr
For beginning students. The primary emphasis is on aural/oral skills. Students learn to converse and ask questions in simple present time and become acquainted with location of Hispanic populations and elements of their daily lives. Attendance is required. May not register for or take a D/F repeat in SPAN 101 when credit has already been received for a higher-numbered Spanish course.

**SPAN 102 Elementary Spanish II** 4c-0l-4cr
**Prerequisite:** SPAN 101, or the equivalent as established by departmental placement examination
A continuation of SPAN 101. Students learn to express past and future time and continue to learn about Hispanic countries and their cultures. Liberal Studies credit is given. Attendance is required. May not register for or take a D/F repeat in SPAN 102 when credit has already been received for a higher-numbered course.

**SPAN 201 Intermediate Spanish** 4c-0l-4cr
**Prerequisite:** SPAN 102, or the equivalent as established by departmental placement examination
A continuation of previous work on listening, speaking, reading, and writing skills. Students learn to function in everyday situations, expressing opinions and doubts, and narrating and describing in present, past, and future time. Exposure to cultural concepts through literary readings. Liberal Studies credit is given. Attendance is required. No student is allowed to register for or take a D/F repeat in SPAN 201 when credit has already been received for a higher-numbered Spanish course.

**SPAN 220 Intermediate Spanish Conversation** 3c-0l-3cr
**Prerequisite:** SPAN 201 or equivalent
Intensive work or oral communication skills with emphasis on spontaneous interpersonal speaking, discourse strategies, vocabulary building, and pronunciation. Liberal Studies credit is given. Required for all majors and minors. No student is allowed to register for or take a D/F repeat in SPAN 201 when credit has already been received for a higher-numbered Spanish course.

**SPAN 230 Intermediate Spanish Composition and Grammar** 3c-0l-3cr
**Prerequisite:** SPAN 202 or equivalent; may be taken concurrently

**SPAN 244 Modern Mexico** 3c-0l-3cr
**Prerequisites:** SPAN 201 or equivalent and participation in the Mexico Summer Study Abroad Program
Taught in Mexico as part of the IUP Mexico study abroad program; intro-
duces the contemporary culture of Mexico. Provides a cultural perspective within which to understand current phenomena. Exposes students to readings on cultural and historical topics, current events, and folkloric narratives. Complements firsthand experience gained through field trips and through living with a Mexican family. Course is taught in Spanish on-site in Mexico and online.

**SPAN 260 Introduction to Hispanic Literature** 3c-0l-3cr
**Prerequisite:** SPAN 230 or equivalent
A prerequisite for any 300- or 400-level course in Hispanic literatures. Provides the tools necessary for developing literary competence and combines a study of literary genres and analysis with an introduction to the literatures of Spain and Spanish America. Taught in Spanish.

**SPAN 281 Special Topics** var-1-3cr
**Prerequisite:** As appropriate to course content
Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 281 are offered primarily for lower-level undergraduate students.

**SPAN 330 Advanced Spanish Composition and Grammar** 3c-0l-3cr
**Prerequisite:** SPAN 230 or equivalent
Extensive work on the development of written expression and communication at the "advanced level" of proficiency in Spanish, as defined by the American Council on the Teaching of Foreign Languages, together with the study of advanced-level structures. Taught in Spanish.

**SPAN 340 Hispanic Cultures into the 19th Century** 3c-0l-3cr
**Prerequisite:** SPAN 230 or equivalent
An introduction to the significant aspects of the cultures of both Spain and Spanish America. Elements for explanation and discussion are drawn from artistic, literary, religious, geographic, social, and political manifestations of Hispanic cultures as they have revealed themselves through the early 19th century. Taught in Spanish. (Titled Spanish Civilization through the 19th Century before 2016-17.)

**SPAN 342 Spanish Cultures from the 19th Century to the Present** 3c-0l-3cr
**Prerequisite:** SPAN 230 or equivalent
Analyzes the major cultural trends in 19th-, 20th-, and 21st-century Spain as they relate to its current problems, aspirations, and values. Draws elements for explanation and discussion from artistic, literary, religious, geographic, social, and political manifestations. Taught in Spanish; offered alternate years. (May not duplicate credit for SPAN 382 taken in Valladolid.) (Titled 20th-Century Spanish Civilization and Culture before 2016-17.)

**SPAN 344 Spanish-American Cultures from the 19th Century to the Present** 3c-0l-3cr
**Prerequisite:** SPAN 230 or equivalent
Explores the major cultural trends in Spanish America as they relate to their position in the world, starting with the independence movements of the early 19th-century, through the 20th-century to the present. Explains and discusses social, political, artistic, literary, religious, geographic, and cultural manifestations, including indigenous and African cultural influences. Taught in Spanish; offered alternate years.

**SPAN 350 Advanced Spanish Conversation** 3c-0l-3cr
**Prerequisite:** SPAN 230 or equivalent. May earn credit for SPAN 350 before taking SPAN 230 only by completion of a minimum six-week study abroad program and successful prior completion of SPAN 220 (or the equivalent).
Extensive practice in oral communication skills. Emphasizes development of fluency in speaking over a wide range of topic areas. Required for all majors and minors.

**SPAN 354 Commercial Spanish** 3c-0l-3cr
**Prerequisite:** SPAN 230 or equivalent
Has three focuses: teaches how to do business communications in Spanish; teaches the vocabulary necessary for dealing with all aspects of trade and commerce; and introduces the special concerns and practices of business in the Spanish-speaking world. Taught in Spanish.

**SPAN 362 Survey of Peninsular Literature** 3c-0l-3cr
**Prerequisite:** SPAN 260 or permission
Introduces a careful and critical reading of literary texts from Spain, read either in their entirety or in select passages. Taught in Spanish; offered alternate years.

**SPAN 364 Survey of Spanish-American Literature** 3c-0l-3cr
**Prerequisite:** SPAN 260 or permission
Introduces a careful and critical reading of Spanish-American literary texts, read either in their entirety or in select passages. Taught in Spanish; offered alternate years.

**SPAN 382-389 Pennsylvania-Valladolid Program** 18cr
**Prerequisites:** SPAN 230 and 260 or permission
Contact chair, Department of Foreign Languages. Courses taken in Valladolid include SPAN 382-389 and SPAN 482 (3cr). Descriptions follow.

**SPAN 382 Contemporary Spain** 3c-0l-3cr
**Prerequisites:** SPAN 230 and 260 or permission
Gives a general view of Spain today in the areas of society, economy, and political institutions. (See SPAN 342)

**SPAN 383 Geography and History of Spain** 3c-0l-3cr
**Prerequisites:** SPAN 230 and 260 or permission
Introduces a panorama of Spanish physical, social, and economic geography, including the recent autonomic division of the country and the communication among the autonomies. Also reviews the history of Spain from the 15th century to the present with special emphasis on today’s Spanish institutions.

**SPAN 384 History of Spanish Art** 3c-0l-3cr
**Prerequisites:** SPAN 230 and 260 or permission
Exposure to the richness of art in the Iberian Peninsula and in particular in the area of Madrid and Castilla-Leon. Studies the evolution of Spanish art in history, giving more emphasis to contemporary tendencies.

**SPAN 385 Survey of Spanish Literature** 3c-0l-3cr
**Prerequisites:** SPAN 230 and 260 or permission
Introduces a general study of Spanish literature from its origin to the present time; students learn to appreciate and analyze the different literary genres. An emphasis on 20th-century literature.

**SPAN 389 Theory and Practice of Spanish Language** 3c-0l-3cr
**Prerequisites:** SPAN 230 and 260 or permission
Introduces Spanish syntax, morphology, and the Spanish language lexicon, as well as familiar and formal conversation and idiomatic expressions used in everyday situations.

**SPAN 390 Teaching of Elementary Content through the Spanish Language** 3c-0l-3cr
**Prerequisites:** Passage of a language proficiency examination and instructor permission
Studies current theories of language acquisition processes in children and develops foreign language instructional objectives and activities that integrate language and cultural learning with the content areas of the elementary school curriculum. Through hands-on practice, students develop techniques for teaching functional language, planning lessons, testing language skills, setting curricular objectives, and selecting/designing materials appropriate to the needs and interests of elementary school foreign language learners.

**SPAN 402 Translation and Interpretation** 3c-0l-3cr
**Prerequisites:** SPAN 230, 350
Fundamental translation skills for use in business and industry as well as in academic and popular fields.

**SPAN 410 Medieval Literature** 3c-0l-3cr
**Prerequisite:** SPAN 260 or permission
Reading and discussion of various medieval genres: brief prose narrative,
epic, lyric, and didactic poetry, prose, and medieval drama. Taught in Span-

SPAN 411 Golden Age Spanish 3c-0l-3cr
Prerequisite: SPAN 260 or permission
An analysis of themes, motifs, and stylistic devices of Spanish poetry, novel, and theatre of the Renaissance and Baroque. Taught in Spanish.

SPAN 412 The Spanish Novel of the 19th and 20th Centuries 3c-0l-3cr
Prerequisite: SPAN 260 or permission
An analysis of selected novels from three major periods: the 19th century, the Generation of 1898, and the post-Civil War. Taught in Spanish.

SPAN 413 Spanish Poetry of the 19th and 20th Centuries 3c-0l-3cr
Prerequisite: SPAN 260 or permission
The study and analysis of lyric poetry in Spain from 19th-century poetry through modernism and its evolution to the present. Taught in Spanish.

SPAN 420 Modern Hispanic Theatre 3c-0l-3cr
Prerequisite: SPAN 260 or permission
The study and analysis of modern dramatic works from Spain and Spanish America. Particular emphasis is given to the representational aspect of the works. Taught in Spanish.

SPAN 421 Modern Hispanic Short Story 3c-0l-3cr
Prerequisite: SPAN 260 or permission
The critical analysis of short stories by Spanish and Spanish-American authors. Taught in Spanish; offered in four-year rotation.

SPAN 430 20th-Century Spanish-American Prose 3c-0l-3cr
Prerequisite: SPAN 260 or permission
Traces literary expressions from the turn of the century to the present in the major prose expressions of the essay, the short story, and the novel. Taught in Spanish; offered in four-year rotation.

SPAN 431 Spanish-American Poetry 3c-0l-3cr
Prerequisite: SPAN 260 or permission
A study of Spanish-American poetry from its early manifestations through modernism, post-modernism, and avant-garde. Taught in Spanish.

SPAN 450 Conversation Forum 3c-0l-3cr
Prerequisite: SPAN 350 or equivalent
Extensive work on the development of speaking skills at the “Advanced” level of oral proficiency, as defined in the Speaking Guidelines developed by the American Council on the Teaching of Foreign Languages. Focuses on paragraph-length discourse and narration and description in present, past, and future time frames within a variety of topics and contexts.

SPAN 453 Spanish Phonetics and Phonemics 3c-0l-3cr
Prerequisite: SPAN 230
An introduction to the study of the phonological system of Spanish and emphasis on improving pronunciation. Includes a theoretical basis for understanding the Spanish sound system, pronunciation practice and recordings, study of Spanish dialects, and linguistic analyses. Taught in Spanish. Required for Spanish education K-12 majors; highly suggested for Spanish majors.

SPAN 481 Special Topics var-1-3cr
Prerequisite: As appropriate to course content
Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 481 are primarily for upper-level undergraduate students.

SPAN 482 Independent Study var-1-6cr
Prerequisite: Prior approval through advisor, faculty member, department chair, dean, and Office of the Provost
An opportunity to engage in an in-depth analysis of some topic dealing with the Spanish language and culture through consultation with a faculty member. Approval is based on academic appropriateness and availability of resources.

SPAN 483 Honors Thesis var-1-6cr
Prerequisites: Admission to departmental honors program; prior approval through advisor, faculty member, department chair, dean, and Office of the Provost
An intensive, focused study involving independent research culminating in a written thesis approved by a thesis director and two faculty readers-committee members. May be taken more than once to a maximum of 6cr.

SPAN 493 Internship var-3-12cr
Prerequisite: One semester of study in a Spanish-speaking country
A supervised field experience in any Spanish-speaking area of the world with approved public agencies and institutions or private firms, no longer than one semester and no less than one month. Positions are matched as closely as possible with the intern’s personal interests and professional goals. For more information contact the Foreign Languages Department. Maximum of 6cr can be applied toward a major.

SPLP: Speech Pathology and Audiology
Department of Communication Disorders, Special Education, and Disability Services
College of Education and Communications

SPLP 111 Introduction to Communication Disorders 3c-0l-3cr
Prerequisite: Major in speech-language pathology and audiology or minor in audiology
An introduction to study of physiological, acoustical, and scientific processes involved in production and reception of speech. The genetic development of speech sounds and factors that hinder or facilitate speech and language acquisition.

SPLP 122 Clinical Phonology 3c-0l-3cr
Prerequisite: Speech-language pathology and audiology major
Detailed study of the classification of American-English phonemes using the physical and acoustical perspectives. Development of proficiency in use of International Phonetic Alphabet for allophonic transcriptions of normal and disordered speech.

SPLP 222 Introduction to Audiology 3c-0l-3cr
Prerequisite: Speech-language pathology and audiology major or audiology minor
The study of auditory function, anatomy, and physiology of the auditory mechanism, psychophysics of sound, types and causes of hearing loss, measurement of hearing, and educational considerations for children with hearing loss.

SPLP 242 Speech Science 3c-0l-3cr
Prerequisite: Speech-language pathology and audiology major
Corequisite: SPLP 251
An introduction to the theoretic properties, biological characteristics, and physical analysis of human speech production, speech perception, and swallowing. Content is integrated into applications of clinical instrumentation and measurement.

SPLP 251 Anatomy and Physiology of Speech and Swallowing 3c-0l-3cr
Prerequisite: Speech-language pathology and audiology major
Corequisite: SPLP 242
Examines the structure and function of the body systems involved in speech production (i.e., respiration, phonation, articulation) and swallowing and an introduction to the nervous system. Normal variances based on age, gender, and race are included. Comparisons between normal and disordered clinical presentations are introduced.

SPLP 254 Classroom Management of Language Disorders 3c-0l-3cr
Prerequisite: Speech-language pathology and audiology major
A study of aspects of speech, language, and hearing problems pertaining to classroom situation. Types of speech and hearing disorders; conducting speech and language improvement lessons; classroom aids for teaching the child with language, speech, and hearing impairment; and school and community resources for these children. (Required for majors in special education and suggested for majors in elementary education.)
SPLP 275 Language Science 3c-0l-3cr
Prerequisites: Speech-language pathology and audiology major, SPLP 111
Addresses the structure of language and the cognitive processes underlying normal language behavior. Applications to various clinical populations are also addressed. Prerequisites include an introductory course in communication disorders.

SPLP 281 Special Topics var-1-3cr
Prerequisite: As appropriate to course content
Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identifier no more than three times. Special topics numbered 281 are offered primarily for lower-level undergraduate students.

SPLP 310 Observation in Communication Disorders I 1c-0l-1cr
Prerequisites: Speech-language pathology and audiology majors with junior standing
Provides a context for observation of individuals of all ages receiving speech-language pathology or audiology services. Principles of observation, as well as assessment, prevention, and intervention are discussed.

SPLP 311 Aural Rehabilitation 3c-0l-3cr
Prerequisites: Speech-language pathology and audiology major with junior standing, or audiology minor
An examination of the effects of hearing loss at different stages of development and the technology and rehabilitative procedures used with hard-of-hearing and deaf children and adults.

SPLP 312 Advanced Audiology and Hearing Disorders 3c-0l-3cr
Prerequisite: SPLP 222
Contains advanced audiological topics concerning auditory function; types and causes of hearing disorders; advanced evaluation procedures and techniques for hearing; and social, emotional, and educational impacts of various auditory disorders on adults and children.

SPLP 334 Language Development 3c-0l-3cr
Prerequisites: Speech-language pathology and audiology major
The study of development of an interpersonal communication system; language as a system of symbols for communication; the structure of the English language, including phonology, syntax, semantics. Highlighting of neurological, social, and psychological bases of language development.

SPLP 342 Neuroscience for Communication Disorders 3c-0l-3cr
Prerequisites: Speech-language pathology and audiology major, junior standing
An overview of the basic anatomy of the central nervous system and its control of human swallowing and communication. Includes the biological science principles of speech and language processing and neurogenic communication and swallowing disorders in children and adults. (Titled Speech Science II Neuroscience before 2016-17.)

SPLP 401 Communication and Social Competence for Children with Autism 3c-0l-3cr
Prerequisites: Speech-language pathology and audiology major with junior standing, or instructor permission
Examines the interplay among cognition, language, and communication in children and adolescents with autism spectrum disorders (ASD). A team approach is emphasized outlining the roles of parents, speech-language pathologists, special education teachers, classroom teachers, school psychologists, and school administration. Methods for assessment of and intervention for language and social communication skills are introduced. Clinical methods that can facilitate social skills, play, and friendships with peers are emphasized.

SPLP 406 Clinical Management of Articulation and Language 3c-0l-3cr
Prerequisites: Speech-language pathology and audiology major, junior standing, SPLP 334
An introduction to the principles and practices for assessment and intervention of articulation/phonology and language disorders using a variety of experiences that allow students to practice applying their clinical skills to practical situations. An overview of diagnostic tools, assessment principles and techniques, and intervention principles and techniques as related to a variety of articulation/phonology and language disorders.

SPLP 408 Organic Disorders 3c-0l-3cr
Prerequisites: Speech-language pathology and audiology major, junior standing
Introduces the theoretic foundations, clinical characteristics, diagnostic procedures, and treatment options for three subspecialties in speech-language pathology: stuttering, voice disorders, and dysphagia.

SPLP 410 Observation in Communication Disorders II 1c-0l-1cr
Prerequisite: SPLP 310
A focused observation of patients receiving speech-language pathology or audiology services. Discusses professional codes of ethics, principles of observation, assessment, prevention, and intervention. Provides supervised services to one patient in the IUP Speech, Language, and Hearing Clinic.

SPLP 412 Organization and Administration of Speech, Language, and Hearing Programs 3c-0l-3cr
Prerequisites: Junior status (60 or more credits), 3.25 GPA
Establishment and maintenance of speech and hearing programs within various administrative organizations, particularly in the public schools and health care settings. Techniques of client identification, scheduling, record-keeping, appropriate referral, material and equipment selection, counseling, and the development of coordinated professional and interdisciplinary procedures are covered. Emphasis is given to issues of ethical practice and cultural diversity.

SPLP 420 Undergraduate Clinic var-1-3cr
Prerequisites: SPLP 310, 410, GPA of 3.0 or better, all major courses, program director’s permission
An experience in working with individuals or groups of persons who exhibit speech, language, or hearing problems. Treatment planning, documentation, and service delivery.

SPLP 422 Central Auditory Processing Disorders in the Educational Setting 3c-0l-3cr
Prerequisite: SPLP 222
Includes three sections: (1) introductory information about central auditory processing disorders (CAPD), (2) screening instruments and test batteries used by audiologists and speech-language pathologists, and (3) management and remediation options used by professionals, parents, and children with the diagnosis. The introductory information covers the characteristics, causes, comorbid conditions, influences on, and prevalence of CAPD. The various models and profiles of auditory processing disorders are presented. The personnel responsible for a multidisciplinary approach to assessing and treating CAPD are discussed. Terminology used by audiologists and SLPs is presented, as well as anatomical and physiological aspects of central auditory processing. Covers samplings of test materials commonly used in clinics, and (if time allows) students get hands-on practice administering screenings and diagnostic tests. The final third of the class focuses on environmental modifications, remediation activities, and compensatory strategies used by therapists for CAPD diagnoses.

SPLP 481 Special Topics var-1-3cr
Prerequisite: As appropriate to course content
Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identifier no more than three times. Special topics numbered 481 are primarily for upper-level undergraduate students.

SUST: Sustainability Studies
Colleges of Humanities and Social Sciences and Natural Sciences and Mathematics

SUST 201 Introduction to Sustainability Studies 3c-0l-3cr
Keystone course for students pursuing a minor in Sustainability Studies. To live sustainably is to aspire for balance with the environment in a society that seeks equality, justice, and the well-being of all species. Consider...
definitions of sustainability and introduces the principles, histories and practices of sustainability through a critical combination of interdisciplinary, global, and multicultural perspectives. Enables grappling with major, interdependent social, economic, cultural, and environmental contexts and issues related to sustainability. Engages in a praxis-based problem-solving research project, which addresses a core set of current sustainability issues emerging in local, regional, national, and global contexts.

**SUST 281 Special Topics**  
Prerequisite: As appropriate to course content  
Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 281 are offered primarily for lower-level undergraduate students.

**THTR 101 Introduction to Theatre**  
3c-0l-3cr  
An exploration of the theatre arts, examining its major conceptual and aesthetic underpinnings, major periods of theatre history, selected works of dramatic literature, and the primary theatre arts of acting, directing, design, and technical theatre. Class experience includes the analysis of at least two major works of drama, attending two live productions, and viewing of selected televised plays and musicals. Meets Fine Arts requirement for Liberal Studies. THTR 101 and 161 may not be substituted interchangeably for D/F repeats. THTR 101 and 161 may not be used for duplicate credit. THTR 161 is required for the Effective Teamwork and Communication minor.

**THTR 111 Foundations of Theatre**  
3c-0l-3cr  
A primary course for those engaged in theatre and any other performance-related area so as to define the nature of theatre art, develop one’s own individual system of analysis, and finally acquire an understanding of process, dramatic structure, composition, genre, theatrical styles, and a theory of performance.

**THTR 116 Fundamentals of Theatrical Design**  
3c-0l-3cr  
Introduces the fundamentals of scene, costume, lighting, and sound design for theatre and dance. Focuses on creative processes used by designers to make choices. Topics include script analysis, director and designer communication, and the integration of the design elements into a unified production.

**THTR 120 Stagecraft**  
3c-0l-3cr  
An exploration of the material, methods, and procedures utilized in creating a scenic environment. Through instruction and practical applications, students learn the basis of scenic construction and develop competency with the basic materials and equipment used in a theatrical scenery shop.

**THTR 122 Costume Workshop**  
3c-0l-3cr  
Instruction and practical experience in the process of building costumes for the stage. Activities include fitting, cutting, sewing, dyeing, and painting. Also gives instruction in the maintenance of wardrobe, costume stock, materials, and properties.

**THTR 130 Stage Voice**  
3c-0l-3cr  
Prerequisite: Theatre majors only or instructor permission  
Instruction in basic development of the vocal instrument of the actor in stage performance. Emphasizes resonance, quality, pitch, and projection of the voice while improving the student’s ability to articulate.

**THTR 131 Stage Movement**  
3c-0l-3cr  
Instruction in basic stage movement and the physicalization of character. Includes work in character development through variety in movement, introductory work in juggling, stage combat, and mime, and the assessment, awareness, and correction of individual movement problems.

**THTR 132 Introduction to Acting**  
3c-0l-3cr  
Introduces the art and craft of the theatre from the actor’s point of view. Through practical application, students develop personal and professional skills that enhance oral communication, self-presentation, and self-confidence. Students also develop the ability to respond knowledgeably to theatrical productions as an audience member.

**THTR 140 Foundations of Performance**  
3c-0l-3cr  
An intensive, experimental workshop that introduces and explores fundamental components of theatrical performance (vocal, physical, ensemble, imaginative, analytic) in a holistic sequence of exercises and projects. Provides incoming theatre majors with a common set of foundational theatre skills and knowledge, a theatrical vocabulary, and collaborative ensemble interaction that enriches the freshman experience. As students progress, whether on a performance track or in other areas, this course gives them a shared context from which to grow as theatre artists.

**THTR 161 Introduction to Theatre: Interpersonal Practices**  
3c-0l-3cr  
Explores the theatre arts, examines its major conceptual and aesthetic underpinnings, major periods of theatre history, selected works of dramatic literature, and the primary theatre arts of acting, directing, design, and technical theatre. Class experience includes the analysis of at least two major works of drama, attending two live productions, and viewing of selected televised plays and musicals. Analyzes examples of interpersonal relations of teams using dramatic literature, and implement primary acting and directing tools in discovering solutions to challenges in interpersonal relations. Designed for those seeking a minor in Effective Teamwork and Communication. Meets Fine Arts for Liberal Studies. THTR 101 and 161 may be substituted interchangeably for D/F repeats, but THTR 161 is required for the Effective Teamwork and Communication minor. THTR 101 and THTR 161 may not be used for duplicate credit.

**THTR 211 History and Literature: Classical**  
3c-0l-3cr  
A lecture course that surveys Western theatre from its origins through the ancient Greeks to medieval times. Students examine styles and genres of the period through the work of playwrights, actors, and theorists. Includes the study of cultural, social, political, and economic contexts of Western theatre in this period; contextual comparisons to Eastern theatre of the same era; as well as the changes in performance practice, the architecture of performance space, theatre technology, and audience composition.

**THTR 212 History and Literature: Renaissance**  
3c-0l-3cr  
Surveys Western theatre from the Renaissance to the Industrial Revolution. Examines styles and genres of the period through the work of playwrights, directors, actors, designers, and theorists. Includes the study of cultural, social, political, and economic contexts of Western theatre in this period, as well as the changes in performance practice, the architecture of performance space, theatre technology, and audience composition.

**THTR 213 History and Literature: Modern and Contemporary**  
3c-0l-3cr  
Surveys Western theatre from the late 19th century to the present. Examines styles and genres of the period through the work of playwrights, directors, actors, designers, and theorists. Includes the study of cultural, social, political, and economic contexts of Western theatre in this period, as well as the changes in performance practice, the architecture of performance space, theatre technology, and audience composition.

**THTR 221 Basic Stage Lighting**  
3c-0l-3cr  
An introduction to lighting instruments, color media, control boards, physical laws of electricity and optics, graphics, and conventional techniques used in lighting theatrical productions.

**THTR 223 Makeup for the Stage**  
3c-0l-3cr  
Deals with practical application of straight and character makeup and may include instruction in creating beards, wigs, prosthetics, and masks.

**THTR 225 Theatre Graphics**  
1c-3l-3cr
A practical introduction to the discipline of costume design for the theatre with an emphasis on script analysis, figure drawing, character definition, and control of the design elements, supplemented by an overview of costume history.

**THTR 226 Stage Management** 3c-0l-3cr
**Prerequisite:** THTR 111 or instructor permission
A practical survey of stage management as it pertains to theatre, dance, and opera productions. Covers the role of the stage manager from pre-production to post-production as well as the techniques, communication methodology, practices, and standard theatre terminology.

**THTR 240 Acting I** 3c-0l-3cr
**Prerequisite:** THTR 140
The study of the primary elements of the Stanislavski system of character development. Includes text analysis and the development of physical action through a character’s subtext, as well as motivational and improvisational techniques.

**THTR 281 Special Topics** var-1-3cr
**Prerequisite:** As appropriate to course content
Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 281 are offered primarily for lower-level undergraduate students.

**THTR 310 Theatre Criticism** 3c-0l-3cr
**Prerequisite:** THTR 116 or permission
Gives students of theatre an opportunity to use what they have learned in the areas of theatre (acting, directing, design, and playwriting) toward the critical process of responding to theatre productions. Examines differences between theatre criticism and theatre reviews while learning to write critical responses to live performances both on and off campus.

**THTR 311 Dramaturgy** 3c-0l-3cr
An introduction to the study and profession of dramaturgy. A study of the historical significance of the dramaturg through the reading of early and modern practitioners. An examination of a number of critical theories that students will use to contextualize play scripts under study. Performance of such dramaturgical tasks as identifying script references, historicizing social conventions and customs, comparing translations of notable foreign plays, preparing information packets for actors, directors, and design teams, drafting program notes, and organizing talkbacks. An opportunity to provide services for a department production. (Cross-listed as ENGL 309.)

**THTR 313 American Theatre Between the Wars** 3c-0l-3cr
Surveys popular and significant American plays written and produced in the 1920s and 1930s. Examines theatrical styles, trends, and themes that reflect the era’s values and the challenges and threats to those values. Analyzes and compares the work of playwrights, directors, performers, and designers within the historical and social contexts of the past Great War and the impending Second World War, as well as formulates comparisons to the world of the 21st century.

**THTR 320 Scene Design** 3c-0l-3cr
**Prerequisite:** THTR 116 or permission
An introduction to scenic design that applies the fundamental principles of theatrical design. Topics include an overview of current scene design practice, design conceptualization, graphic communication methods, and a method of designing theatrical scenery. Practical applications are emphasized through a series of class exercises.

**THTR 321 Stage Lighting Design** 3c-0l-3cr
**Prerequisite:** THTR 116 or permission
An introduction to stage lighting that applies the fundamental principles of theatrical design. Stage lighting topics include an overview of current lighting methods and equipment, the controllable properties and functions of stage lighting, learning to see light, a creative approach to stage lighting, and design graphics. Practical applications are emphasized through a series of class exercises.

**THTR 322 Costume Design** 3c-0l-3cr
**Prerequisite:** THTR 116 or permission
An introduction to the discipline of costume design for the theatre with an

**THTR 323 Sound Design** 3c-0l-3cr
Covers the basic principles and theories of designing sound for the theatre. Through demonstration and practical application, covers the following principal areas: basic electronics, recording techniques and equipment, musical and effects integration, theatre acoustics, designing sound, and sound reinforcement.

**THTR 331 Improvisation and Creativity** 3c-0l-3cr
Introduces short- and long-form improvisation techniques and scene practice. Explores an overview of improvisatory styles and practitioners. Analyze show social mores, world events, and prevailing attitudes shaped and continue to shape the world of improvisational theatre throughout theatre history. Studies and practices culminate in final improvisation performance project.

**THTR 340 Acting II** 3c-0l-3cr
**Prerequisite:** THTR 240
A continuation of the study of Stanislavski system, focusing on his primary texts, toward a development of individual student techniques. Emphasizes scene study through applying techniques to scene rehearsal and role problems and exploring the relationships between psychological states, physical action, and truth in acting.

**THTR 341 Acting Styles** 3c-0l-3cr
**Prerequisites:** THTR 130/131, 240 or instructor permission
A study and practice of advanced acting skills, with specific emphasis on style and period. Possible areas of focus: Greek Classical, Commedia Dell’Arte (farce), French Neoclassical, Restoration Comedy, Melodrama, High Comedy (Wilde/Coward), or Theatre of the Absurd.

**THTR 342 Acting Shakespeare** 3c-0l-3cr
**Prerequisites:** THTR 240, 340 or instructor permission
An advanced acting studio that prepares students to perform in Shakespeare’s plays. A background overview of the Elizabethan period in addition to various methods toward approaching the movement, language, and verse forms from an actor’s point of view.

**THTR 347 Playwriting** 3c-0l-3cr
**Prerequisite:** THTR 111 or instructor permission
A practical exploration of the craft and process of playwriting. Focuses primarily on the practical, “hands-on” experiences approximating the “developmental process” currently in use in the American theatre. The student is guided from the initial concept through synopsis, outlines, working drafts, and completion of an original one-act play and a “staged reading” of this project. Note: Cross-listed as ENGL 347. Either of these courses may be substituted for each other and may be used interchangeably for D/F repeats but may not be counted for duplicate credit.

**THTR 350 Directing** 3c-0l-3cr
**Prerequisites:** Minimum of THTR 240 and instructor permission.
An introduction to basic directing skills: casting, floor plans, blocking, rehearsal procedures, and the applications of scene and character analysis. Prepare short scenes for class presentation.

**THTR 361 The Performance of Caring** 3c-0l-3cr
**Prerequisite:** Priority enrollment for Nursing and Allied Health majors, or by instructor permission
Using acting skills to engender healing relationships. A creative, empathetic, and practical approach to preparing future healthcare professionals with enhanced skills in the art of establishing and building patient and colleague relationships. Content is delivered, and student learning is facilitated, through the use of approaches common to the training of performing artists.

**THTR 371 Musical Theatre History** 3c-0l-3cr
Surveys the development of musical theatre as a performing art form in America. Examines the ways musicals both reflect and embody values, tastes, and trends from their respective historical eras. Explores musical
Theater from historical, political, social, and aesthetic perspectives. Focuses on the beginnings of musical theater to the present with emphasis on the cultural development and impact of the art form.

**THTR 372 Musical Theatre Auditioning** 3c-0l-3cr
Prerequisite: THTR 240 or instructor permission
Introduces the study of audition techniques for musical theatre, music, scene, and lyric analysis, and characterizations addressed. Enhances and improves audition and performance skills as well as the ability to find and choose appropriate audition material.

**THTR 373 Musical Theatre Scene Study** 3c-0l-3cr
Prerequisite: THTR 240 or instructor permission
An intensive text and score analysis in relation to the process of characterization for the actor, singer, dancer in musical theatre focused through musical scene work into song performance. In addition, basic insights and strategies for a professional career in theater are presented.

**THTR 471 Musical Theatre Performance** 3c-0l-3cr
Prerequisite: THTR 240 or instructor permission
For more advanced acting and musical theatre students interested in developing musical theatre skills in a rehearsal/production format. Using a contemporary American musical chosen by the instructor, students are taught to apply acting, singing, and dance techniques to bring characters to life on stage. Class culminates in a final performance but will focus more on the text, the music, and the fullness of the characterizations as opposed to the technical elements of the production.

**THTR 480 Theatre Seminar** 1c-0l-1cr
Prerequisites: THTR 111, 486, senior standing
Capstone course for majors. Students complete work on their senior thesis project and examine career options. Students develop résumés, portfolios, and other materials particular to their education as a theatre or dance artist and their aspirations for a career or postgraduate studies in a creative field. Offered fall semester only.

**THTR 481 Special Topics** var-1-6cr
Prerequisite: As appropriate to course content
Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 481 are primarily for upper-level undergraduate students.

**THTR 482 Independent Study** var-1-6cr
Prerequisite: Prior approval through advisor, faculty member, department chair, dean, and Office of the Provost
Independent study in theatre may be either purely academic or may be a practical production project, supported by a written document giving evidence of significant scholarly investigation or original, creative effort. May be repeated to a maximum of 6cr. Approval is based on academic appropriateness and availability of resources.

**THTR 484 Directing Studio** 3c-0l-3cr
Prerequisite: THTR 350 or instructor permission. Written application to the instructor is required.
An opportunity for students to direct scene work, one-act plays, or larger projects, according to individual levels of experience, preparation, and readiness, as well as program resources. The focus is on practical application of directing principles to specific issues. Student projects are performed in public, open-class recitals. May be repeated.

**THTR 486 Practicum in Production** var-0-3cr
Prerequisite: Theatre major standing or instructor permission
An opportunity with academic credit to make significant contributions to campus productions augmenting theatre course work in the areas of directing, acting, stage management, technical direction, design (sound, set, lights, costumes, makeup), properties, scenic construction and scenic art painting, costume technology, dance, and running crews. Repeatable course required of all theatre majors for a minimum of six semesters, one of which must be a final project for senior majors.

**THTR 487 Acting Studio** 3c-0l-3cr
Prerequisites: Minimum of THTR 240 or instructor permission. Written application to the instructor may be required when necessary.
An advanced studio course offering scene practice with faculty direction, coaching, and criticism. Specific focus of scene work varies from semester to semester, including improvisation techniques, stage dialects, audition techniques, stage combat, physical theatre, and acting for the camera as alternating semester options. May be repeated with a different focus each time.

**THTR 489 Design/Technology/Management Studio** 3c-0l-3cr
Open to all students desiring instruction in a variety of technical theatre areas not presently covered in other courses. Topics to include stage management, set props, media makeup, technical drawing, mixed media, costume technology, and scene painting. May be repeated with each different topic area.

**THTR 493 Internship** var-3-12cr
Prerequisite: Instructor permission
Opportunities for students to gain experience with professional performance organizations in areas related to theatre and dance.

**UVWD: University-wide Courses**

**UVWD 480 T.H.I.S. Seminar** 3c-0l-3cr
An academic seminar taken at the Pennsylvania State System of Higher Education University Center in Harrisburg in conjunction with the T.H.I.S. internship. Consists of public policy information, decision making, and budgeting and addresses question-and-answer sessions with leading state government policymakers. See description under Academic Affairs area. Restricted to the T.H.I.S. internship participant. See UVWD 493.

**UVWD 493 T.H.I.S. Internship** var-12cr
A practical experience at the policymaking level of the state government that also requires a research project. Must have a 3.0 GPA and submit a sample of writing skills with the application to the Academic Affairs office. Open to any IUP major. See description under Academic Affairs area. Concurrent seminar course required. See UVWD 480.

**VOED: Vocational Education**

**VOED 100 Preparation of the Vocational Professional I** var-1-15cr
Personalized, self-paced vocational teacher preparation. Develops, demonstrates, and documents competence in selected pedagogical competencies. Individualized instruction is supplemented with monthly seminars. Self-evaluation is encouraged in the program, utilizing videotaping and the feedback from a team of professional teacher educators.

**VOED 101 Introduction to Career and Technical Education** 1c-0l-1cr
Prerequisite: Recommendation by Western Region Career and Technical School director
Emphasizes basic elements of teaching in the diverse secondary career and technical classroom. A field-based course focusing on skill areas defined by the Pennsylvania Department of Education—Bureau of Career and Technical Education, such as classroom safety, accommodations for students with special needs, and classroom management.

**VOED 102 Instructional Planning in the Career and Technical (CTE) Classroom** 2c-0l-2cr
Prerequisite: VOED 101
Instructional planning for the CTE classroom and laboratory delivered through field-based instruction. Major emphasis is on planning for instruction, safety procedures, and CTE performance objectives. Instructional plans will include consideration of individual learning styles and accomodations for students with special needs.

**VOED 103 Strategies for Teaching Career and Technical Education** 3c-0l-3cr
VOED 201 Making Accommodations for Students with Special Needs in the Career and Technical Classroom 1c-0l-1cr
Prerequisites: VOED 101, 102, 103
A companion course to EDEX 301. Students apply instructional methods effective for educating students with disabilities and learning style differences in their career and technical classroom. A field-based course with classroom visitations by a university faculty member.

VOED 202 Industry Linkages for Career and Technical Programs 3c-0l-3cr
Prerequisite: VOED 201
Addresses the requirements for industry input and validation for all secondary career and technical programs and focuses on developing and maintaining an effective occupational advisory committee. Emphasis is on the teacher’s responsibility for providing appropriate information to the committee and taking action to follow up on the committee’s recommendations.

VOED 203 Incorporating Reading and Communications Strategies in the Career and Technical Classroom 3c-0l-3cr
Prerequisites: VOED 102, 103
Addresses methods and materials for assisting students as they read, study, and learn in the career and technical classroom. Emphasis is on approaches that facilitate learning of both content and process. Current research is explored, and classroom applications are emphasized for integrating academic standards. A field-based course with classroom visitations by a university faculty member.

VOED 301 Integrating Math and Science in Career and Technical Education 3c-0l-3cr
Prerequisite: Completion of course work for Vocational I certificate
Focuses on the integration of math- and science-related content in the career and technical classroom. Current Pennsylvania Department of Education mandates and strategies for meaningful integration and assessment are addressed. Facilitating the academic skill development of secondary career and technical students is emphasized. A field-based course with classroom visitations by a university faculty member.

VOED 302 Career Education in the Career and Technical Classroom 3c-0l-3cr
Prerequisite: Completion of course work for Vocational I certificate
Emphasizes current labor market statistics and resources for identifying labor market trends. The influence of interests, aptitudes, and work style preferences in making informed career decisions are explored. The role of career and technical student organizations, articulation agreements, and work-based learning to enhance career education in the career and technical classroom are discussed. The emphasis is on integrating career information relevant for the career and technical classroom and a review of the mandates for this integration.

VOED 395 Vocational Education Writing Experience 0c-0l-0cr
Writing assignments such as abstracts, logs of activities, philosophy papers, training plans, presentation plans, lesson plans, etc., are completed in conjunction with selected instructional modules from VOED 100 and 400.

VOED 400 Preparation of the Vocational Professional II var-1-15cr
Prerequisite: Successful completion of VOED 100
Personalized, self-paced vocational teacher preparation. Develops, demonstrates, and documents competence in selected teaching skills in the areas of program planning, program development, program evaluation, and managing and evaluating instruction in a vocational school setting. Self-evaluation is encouraged in the program, utilizing videotaping and the feedback from a team of professional teacher educators.

VOED 402 Special Topics in Vocational Pedagogical Preparation var-1-15cr
Prerequisite: Center permission
Opportunities to develop additional teaching skills under professional supervision. Topics are determined through identification of priority areas in vocational education using national and state surveys and students’ individual needs.

VOED 403 Assessment and Evaluation in Career and Technical Education 3c-0l-3cr
Prerequisite: Completion of course work for Vocational I certificate
The preparation, administration, and scoring of classroom assessments aligned with curriculum and instruction in the career and technical classroom is emphasized as well as analysis and interpretation of test results. Attention is given to the design of performance assessments and the definition of acceptable levels of performance. Checklists and rating scales and their application in the career and technical classroom are included along with formative and summative assessment.

VOED 404 Research in Career and Technical Education 3c-0l-3cr
Prerequisite: Completion of course work for Vocational I certificate
Introduces research in the career and technical classroom. An emphasis is placed on using a variety of research methods to solve problems in the educational environment. Research findings are implemented into the classroom environment and results are shared with peer career and technical teachers.

VOED 405 Professional Seminar in Career and Technical Education 3c-0l-3cr
Prerequisite: Completion of course work for Vocational I certificate
A history of career and technical education; the impact of the educational reform on career and technical education and workforce development and career and technical education’s importance within our society. Topics include leaders in vocational education; societal influences on vocational curriculum design; and professional responsibilities, legislative initiatives, social issues, and organizations involved in and affecting career and technical and workforce development education. A capstone course focusing on the professional growth of the career and technical teacher intern.

VOED 450 Technical Preparation of the Vocational Professional 24cr
Competency assessment of occupational experience through national standardized written and performance examinations.

WGS 200 Introduction to Women’s and Gender Studies 3c-0l-3cr
An interdisciplinary, cross-cultural survey of the ways in which gender interacts with race, class, ethnicity, nationality, and other dimensions of identities to shape human consciousness and determine the social, political, and cultural organizations of human institutions and societies.

WGS 301 Asian American and Asian Diasporic Women’s Literature 3c-0l-3cr
Introduces more than 100 years of the unique, diverse, and dynamic literary tradition of the 20th and 21st century Asian American and Asian diasporic women’s literature in a wide range of Asian cultural, historical, national, global, and American multiethnic contexts. Intersects and is enriched by gender, race, ethnicity, class, sexuality, language, immigration, global migrant labor, citizenship, decolonization, as well as Asian indigenous and ethnic women’s histories.

WGS 400 Feminist Theories 3c-0l-3cr
Introduces the vigorous, interdisciplinary, complex, and diverse intellectual history of feminist theories, methodologies, and politics. Includes classical feminist advocacy from early centuries to feminist theories in early 21st century, from Euro-American feminist philosophical traditions to the more
global, multicultural, intersectional, and continuously multidisciplinary feminist criticisms, with rich dialogues crossing periods and borders. Intersects and is enriched by multiple critical categories of gender, sexuality, class, race, ethnicity, nation, culture, knowledge, and power. Stimulates, engages with, and empowers students. Encourages students to actively apply feminist knowledge to their own cross-disciplinary learning, personal growth, empowerment, and activist social transformation.

**WGS 482 Independent Study**  
**Prerequisite:** Prior approval through advisor, faculty member, department chair, dean, and Office of the Provost.  
An opportunity to engage in an in-depth analysis of some topic through consultation with a faculty member. A semester project ordinarily expected. Approval is based on academic appropriateness and availability of resources.
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