# University Catalog <br> 2023-2024 



## University of Pittsburgh Bradford

## Academic Calendar



## University of Pittsburgh

## ACADEMIC CALENDAR • 2023-24

Dates highlighted in yellow apply to all schools on all University campuses. Those in blue apply only to the Pittsburgh campus.

Official dates for degrees awarded apply to all schools on all University campuses. Specific dates affecting the professional programs in the Schools of Dental Medicine, Law, Medicine, Pharmacy, Health and Rehabilitation Sciences, and the Joseph M. Katz Graduate School of Business may be obtained from the appropriate Dean's Office.

* Employees covered by the collective bargaining agreements will be governed by the terms of those agreements.

NOTE: THE UNIVERSITY RESERVES THE RIGHT TO MAKE SUCH CALENDAR CHANGES AS IT DEEMS NECESSARY

| $\checkmark$ All Campu | Dates | ( Pittsburgh Campus Only | Mix-in: All, None |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| August 2023 |  |  |  |  |  |
| Begins |  |  | Ends |  | Campus |
| 8/14/2023 | Monday | Office of International Services (OIS) Graduate and Professional Student Orientation | 8/14/2023 | Monday | Pittsburgh Campus |
| 8/16/2023 | Wednesday | International Undergraduate Student Orientation | 8/21/2023 | Monday | Pittsburgh Campus |
| 8/16/2023 | Wednesday | Summer Term grades must be approved by instructors by $11: 59$ p.m. | 8/16/2023 | Wednesday | Pittsburgh Campus |
| 8/16/2023 | Wednesday | Staff Council | 8/16/2023 | Wednesday | Pittsburgh Campus |
| 8/20/2023 | Sunday | Welcome Week | 8/27/2023 | Sunday | Pittsburgh Campus |
| 8/20/2023 | Sunday | Residence Halls Open | 8/20/2023 | Sunday | Pittsburgh |


|  |  |  |  |  | Campus |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $\mathbf{8 / 2 2 / 2 0 2 3}$ | Tuesday | New Graduate and Professional Student Orientation | $8 / 22 / 2023$ | Tuesday | Pittsburgh |
| Campus |  |  |  |  |  |

## October 2023

| Begins |  | Ends |  | Campus |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $\mathbf{1 0 / 4 / 2 0 2 3}$ | Wednesday | Faculty Assembly | $10 / 4 / 2023$ | Wednesday |  |


|  |  |  |  | Campus |
| :---: | :---: | :---: | :---: | :---: |
| 11/19/2023 Sunday | Thanksgiving Recess for Students (No Classes), All Schools | 11/26/2023 | Sunday | All Campuses |
| 11/23/2023 Thursday | Thanksgiving Recess for Faculty and Staff (University Closed) | 11/24/2023 | Friday | All Campuses |
| 11/27/2023 Monday | Classes Resume (All Schools) | 11/27/2023 | Monday | All Campuses |
| 11/29/2023 Wednesday | Faculty Assembly | 11/29/2023 | Wednesday | Pittsburgh Campus |

December 2023

| Begins |  | Ends |  | Campus |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $\mathbf{1 2 / 7 / 2 0 2 3}$ | Thursday | Senate Council | $12 / 7 / 2023$ | Thursday | Pittsburgh |
| Campus |  |  |  |  |  |

necessary.

## January 2024

| Begins |  |  | Ends |  | Campus |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 12/17/2023 | Sunday | Winter Recess for Students (No Classes), All Schools | 1/7/2024 | Sunday | All Campuses |
| 12/22/2023 | Friday | Winter Recess for Faculty, Staff, \& Designated Offices. Responsibility centers \& research projects staffed as necessary. | 1/1/2024 | Monday | All Campuses |
| 1/2/2024 | Tuesday | All University Offices and Buildings Reopen | 1/2/2024 | Tuesday | All Campuses |
| 1/6/2024 | Saturday | Residence Halls Reopen | 1/6/2024 | Saturday | Pittsburgh Campus |
| 1/8/2024 | Monday | Spring Term Enrollment Period Ends for All Students | 1/8/2024 | Monday | All Campuses |
| 1/8/2024 | Monday | Spring Term Classes Begin | 1/8/2024 | Monday | All Campuses |
| 1/10/2024 | Wednesday | Faculty Assembly | 1/10/2024 | Wednesday | Pittsburgh Campus |
| 1/15/2024 | Monday | Dr. Martin Luther King's Birthday Observance (University Closed) | 1/15/2024 | Monday | All Campuses |
| 1/17/2024 | Wednesday | Staff Council | 1/17/2024 | Wednesday | Pittsburgh Campus |
| 1/18/2024 | Thursday | Senate Council | 1/18/2024 | Thursday | Pittsburgh Campus |
| 1/19/2024 | Friday | Spring Term Add/Drop Period Ends | 1/19/2024 | Friday | All Campuses |
| 1/20/2024 | Saturday | Spring Term Extended Drop Period Begins (Undergraduate Students Only) | 1/20/2024 | Saturday | All Campuses (Guidelines) |
| 1/26/2024 | Friday | Spring Term Extended Drop Period Ends (Undergraduate Students Only) | 1/26/2024 | Friday | All Campuses |

February 2024

| Begins |  | Ends |  | Campus |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $\mathbf{2 / 7 / 2 0 2 4}$ | Wednesday | Faculty Assembly | $2 / 7 / 2024$ | Wednesday | Pittsburgh <br> Campus |
| $\mathbf{2 / 9 / 2 0 2 4}$ | Friday | Summer Term Open Enrollment Begins (Veteran <br> Students) | $2 / 9 / 2024$ | Friday | All Campuses |
| $\mathbf{2 / 1 2 / 2 0 2 4}$ | Monday | Summer Term Open Enrollment Begins (Non-Veteran | $2 / 12 / 2024$ | Monday |  |


|  | Students) |  | All Campuses |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $\mathbf{2 / 1 5 / 2 0 2 4}$ | Thursday | Senate Council | $2 / 15 / 2024$ | Thursday | Pittsburgh |
| Campus |  |  |  |  |  |

## April 2024

| Begins |  |  | Ends |  | Campus |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 4/2/2024 | Tuesday | Graduate Honors Convocation | 4/2/2024 | Tuesday | Pittsburgh Campus |
| 4/3/2024 | Wednesday | Faculty Assembly | 4/3/2024 | Wednesday | Pittsburgh Campus |
| 4/4/2024 | Thursday | Faculty Honors Convocation | 4/4/2024 | Thursday | Pittsburgh Campus |


| 4/5/2024 | Friday | Last Day for Fall Term Enrollment Appointments | 4/5/2024 | Friday | All Campuses |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 4/6/2024 | Saturday | Fall Term Open Enrollment Period Begins | 4/6/2024 | Saturday | All Campuses |
| 4/11/2024 | Thursday | Senate Council | 4/11/2024 | Thursday | Pittsburgh Campus |
| 4/17/2024 | Wednesday | Staff Council | 4/17/2024 | Wednesday | Pittsburgh Campus |
| 4/19/2024 | Friday | Spring Term: Last Day for Undergraduate Day Classes | 4/19/2024 | Friday | All Campuses |
| 4/20/2024 | Saturday | Reading Day | 4/20/2024 | Saturday | All Campuses |
| 4/20/2024 | Saturday | CGS, Saturday Only, Graduate, and Evening Classes Meet During This Period; final exams held during last scheduled class | 4/27/2024 | Saturday | Pittsburgh Campus |
| 4/22/2024 | Monday | Final Examination Period for Undergraduate Day Classes | 4/26/2024 | Friday | Pittsburgh Campus |
| 4/26/2024 | Friday | Senior Honors Convocation | 4/26/2024 | Friday | Pittsburgh Campus |
| 4/27/2024 | Saturday | Spring Term Ends: Official Date for Degrees Awarded in Spring Term | 4/27/2024 | Saturday | All Campuses |
| 4/28/2024 | Sunday | Residence Halls Close (except for graduating seniors) | 4/28/2024 | Sunday | Pittsburgh Campus |
| 4/28/2024 | Sunday | Annual Undergraduate Commencement Convocation | 4/28/2024 | Sunday | Pittsburgh Campus |
| May 2024 |  |  |  |  |  |
| Begins |  |  | Ends |  | Campus |
| 5/1/2024 | Wednesday | Spring Term Grades Must Be Approved by Instructors by 11:59 p.m. | 5/1/2024 | Wednesday | Pittsburgh Campus |
| 5/1/2024 | Wednesday | Faculty Assembly | 5/1/2024 | Wednesday | Pittsburgh Campus |
| 5/5/2024 | Sunday | Summer Term Residence Halls Open | 5/5/2024 | Sunday | Pittsburgh Campus |
| 5/6/2024 | Monday | Summer Term Enrollment Period Ends and Classes Begin | 5/6/2024 | Monday | All Campuses |


| 5/9/2024 | Thursday | Senate Council | 5/9/2024 | Thursday | Pittsburgh Campus |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 5/13/2024 | Monday | Summer 12-WEEK, 6-WEEK-1, 4-WEEK-1 Sessions Enrollment Period Ends and Classes Begin | 5/13/2024 | Monday | All Campuses |
| 5/15/2024 | Wednesday | Summer 4-WEEK-1 and 6-WEEK-1 Sessions Add/Drop Period Ends | 5/15/2024 | Wednesday | All Campuses |
| 5/15/2024 | Wednesday | Staff Council | 5/15/2024 | Wednesday | Pittsburgh Campus |
| 5/17/2024 | Friday | Summer Term Add/Drop Period Ends | 5/17/2024 | Friday | All Campuses |
| 5/20/2024 | Monday | Summer 12-WEEK Session Add/Drop Period Ends | 5/20/2024 | Monday | All Campuses |
| 5/25/2024 | Saturday | Official Date for Degrees Awarded in the School of Law and School of Dental Medicine | 5/25/2024 | Saturday | Pittsburgh Campus |
| 5/27/2024 | Monday | Memorial Day (University Closed) | 5/27/2024 | Monday | All Campuses |
| 5/29/2024 | Wednesday | Summer 4-WEEK-1 Session Deadline for Students to Submit Monitored Withdrawal Forms to Dean's Office | 5/29/2024 | Wednesday | All Campuses |
| 5/31/2024 | Friday | Summer 6-WEEK-1 Session Deadline for Students to Submit Monitored Withdrawal Forms to Dean's Office | 5/31/2024 | Friday | All Campuses |

## June 2024

$\left.\begin{array}{lllllll}\hline \text { Begins } & & \text { Ends } & & \text { Campus } \\ \hline \mathbf{6 / 5 / 2 0 2 4} & \text { Wednesday Faculty Assembly } & 6 / 5 / 2024 & \text { Wednesday } & \text { Pittsburgh } \\ \text { Campus }\end{array}\right]$

| 6/22/2024 | Saturday | Summer 6-WEEK-1 Session Ends: Final Examinations Scheduled During Last Class Meeting | 6/22/2024 | Saturday | All Campuses |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 6/22/2024 | Saturday | Official Date for Awarding of Degrees | 6/22/2024 | Saturday | All Campuses |
| 6/24/2024 | Monday | Summer 6-WEEK-2 Session Enrollment Period Ends and Classes Begin | 6/24/2024 | Monday | All Campuses |
| 6/26/2024 | Wednesday | Summer 6-WEEK-2 Session Add/Drop Period Ends | 6/26/2024 | Wednesday | All Campuses |
| 6/26/2024 | Wednesday | Summer 6-WEEK-1 Session Grades Must Be Approved by Instructors by 11:59 p.m. | 6/26/2024 | Wednesday | Pittsburgh Campus |
| 6/26/2024 | Wednesday | Summer 4-WEEK-2 Session Deadline for Students to Submit Monitored Withdrawal Forms to Dean's Office | 6/26/2024 | Wednesday | All Campuses |
| July 2024 |  |  |  |  |  |
| Begins |  |  | Ends |  | Campus |
| 7/4/2024 | Thursday | Independence Day (University Closed) | 7/4/2024 | Thursday | All Campuses |
| 7/5/2024 | Friday | Summer Term and 12-WEEK Session Deadline for Students to Submit Monitored Withdrawal Forms to Dean's Office | 7/5/2024 | Friday | All Campuses |
| 7/6/2024 | Saturday | Summer 4-WEEK-2 Session Ends: Final Examinations Scheduled During Last Class Meeting | 7/6/2024 | Saturday | All Campuses |
| 7/8/2024 | Monday | Summer 4-WEEK-3 Session Enrollment Period Ends and Classes Begin | 7/8/2024 | Monday | All Campuses |
| 7/10/2024 | Wednesday | Summer 4-WEEK-3 Session Add/Drop Period Ends | 7/10/2024 | Wednesday | All Campuses |
| 7/10/2024 | Wednesday | Summer 4-WEEK-2 Session Grades Must Be Approved by Instructors by 11:59 p.m. | 7/10/2024 | Wednesday | Pittsburgh Campus |
| 7/17/2024 | Wednesday | Staff Council | 7/17/2024 | Wednesday | Pittsburgh Campus |
| 7/19/2024 | Friday | Summer 6-WEEK-2 Session Deadline for Students to Submit Monitored Withdrawal Forms to Dean's Office | 7/19/2024 | Friday | All Campuses |
| 7/24/2024 | Wednesday | Summer 4-WEEK-3 Session Deadline for Students to Submit Monitored Withdrawal Forms to Dean's Office | 7/24/2024 | Wednesday | All Campuses |
| August 2024 |  |  |  |  |  |
| Begins |  |  | Ends |  | Campus |
| 8/3/2024 | Saturday | Summer 12-WEEK, 6-WEEK-2, 4-WEEK-3 Sessions End: Final Examinations Scheduled During Last Class Meeting | 8/3/2024 | Saturday | All Campuses |
| 8/7/2024 | Wednesday | Summer 12-WEEK, 6-WEEK-2, 4-WEEK-3 Sessions Grades Must Be Approved By Instructors by 11:59 p.m. | 8/7/2024 | Wednesday | Pittsburgh Campus |


| 8/10/2024 | Saturday | Official Date for Awarding Degrees | 8/10/2024 | Saturday | All Campuses |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 8/10/2024 | Saturday | Summer Term Ends: Final Examinations Scheduled During Last Class Meeting | 8/10/2024 | Saturday | All Campuses |
| 8/11/2024 | Sunday | Residence Halls Close | 8/11/2024 | Sunday | Pittsburgh Campus |
| 8/14/2024 | Wednesday | Summer Term Grades Must Be Approved by Instructors by $11: 59$ p.m. | 8/14/2024 | Wednesday | Pittsburgh Campus |
| 8/21/2024 | Wednesday | Staff Council | 8/21/2024 | Wednesday | Pittsburgh Campus |

Events calendar powered by 25Live
Printed: Thursday, June 22, 2023 at 5:57 AM PDT Calendar events displayed in Eastern Daylight Time
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## Catalog Home

## Search Programs, Courses \& Policies

Whether you are interested in attending the University of Pittsburgh, or are already enrolled, you can search the Catalog to obtain campus information, academic programs, policies, and courses. For any questions, Contact us!

## University of Pittsburgh Nondiscrimination Policy Statement

The University of Pittsburgh, as an educational institution and as an employer, values equality of opportunity, human dignity, and racial/ethnic and cultural diversity. Accordingly, the University prohibits and will not engage in discrimination or harassment on the basis of race, color, religion, national origin, ancestry, sex, age, marital status, familial status, sexual orientation, gender identity and expression, genetic information, disability, or status as a veteran. The University also prohibits and will not engage in retaliation against any person who makes a claim of discrimination or harassment or who provides information in such an investigation. Further, the University will continue to take affirmative steps to support and advance these values consistent with the University's mission.

For information on University equal opportunity and affirmative action programs, please contact: University of Pittsburgh, Office of Diversity and Inclusion, Cheryl Ruffin, Institutional Equity Manager, 4415 Fifth Avenue, 2nd Floor Webster Hall, Pittsburgh, PA 15260 (412) 648-7860.

For complete details on the University's Nondiscrimination Policy, please refer to CS 07 Nondiscrimination, Equal Opportunity, and Affirmative Action Policy. For information on how to file a complaint under this policy, please refer to CS 07 Nondiscrimination and Anti-Harassment Procedure.

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## Printer-Friendly

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## Catalog Help

At the top of every page you may click this icon to get more specific information on how to use the Catalog.

## About the University of Pittsburgh at Bradford

The University of Pittsburgh at Bradford (Pitt-Bradford) is a comprehensive four-year undergraduate college of the University of Pittsburgh. Founded in 1963, Pitt-Bradford traces its roots back to 1787, the founding year of the University of Pittsburgh. Pitt-Bradford awards the Bachelor of Arts, Bachelor of Science, and Bachelor of Science in Nursing degrees in 25 major areas of study, the Associate of Science degree in two major areas of study, and the Associate of Arts degree in one area of study. In addition, the college provides certification programs in elementary and secondary education, preprofessional programs in a variety of health-related and other areas, and minor concentrations in more than 40 areas of study.

Pitt-Bradford is located in northwestern Pennsylvania near the New York state border on north-south U.S. Route 219, just 10 miles south of Interstate 86. Nearby are the major population centers of Pittsburgh ( 165 miles), Buffalo ( 80 miles), and Toronto, Canada ( 165 miles). The modern 170-acre Pitt-Bradford campus, which was first constructed in 1970, completed a major capital expansion program in 2003. This resulted in the renovation and expansion of a comprehensive sport and fitness center and a student center, and the construction of a fine arts building and theater. Combined with other existing buildings and a mountain setting that is unparalleled for its beauty, Pitt-Bradford has become one of the most physically attractive campuses in the northeastern United States.

Because of Pitt-Bradford's location near the Allegheny National Forest, opportunities for outdoor recreation are plentiful. This includes cross-country and downhill skiing in the winter (the slopes of Holiday Valley are just minutes away) and boating, swimming, fishing, hiking, and camping in the warmer months both in and around the Allegheny Reservoir.

The city of Bradford and its environs, population 20,000, has a rich historic heritage. It was founded during the Pennsylvania oil boom, and some of the world's finest crude oil is still pumped from Bradford wells. Shopping and banking facilities, a well-staffed regional medical center, and all the other amenities of an established small city are available to Pitt-Bradford students.

## Accreditation

The University of Pittsburgh is accredited by the Middle States Commission on Higher Education, 3624 Market Street, Philadelphia, PA 19104, (267) 284 - 5000. Schools, programs, and departments may furthermore be accredited by discipline-specific accrediting bodies.

# Campus Buildings, Centers, and Facilities 

## Blaisdell Hall

Blaisdell Hall is the new building that houses the Division of Communication and the Arts and all programs in the fine arts, which include drama, music, and studio arts. Opened in the summer of 2003, the academic wing houses classrooms, art studios, music practice rooms, a state-of-the art broadcast studio, a rehearsal facility, and faculty offices and meeting rooms. In spring 2004, the Bromeley Family Theater, housed within Blaisdell Hall, opened. Included are a 500 -seat theater with a full-stage house, and facilities for designing and building sets for a variety of productions.

## Fisher Hall

Fisher Hall contains classrooms, laboratories, and faculty offices for the Departments of Biology, Chemistry, Geology and Environmental Science, Engineering, Psychology, and Physics. Fisher Hall also houses the College's Computing, Telecommunications, and Media Services Center. Students have 24 -hour access to one of the two computer-aided learning centers (CALCs). Fisher Hall also houses the 100 -seat Rice Auditorium.

## Frame-Westerberg Commons

The Frame-Westerberg Commons (the student union), newly expanded and remodeled in 2003, is the "living room" of the campus. The Commons contains on its first floor the college dining rooms; the snack bar/coffee shop; the Panther Shop, formerly known as the Book Center; the campus post office; a game room, meeting and conference rooms; student lounges; and WDRQ, the campus radio station. The Office of Conference Services is also there. On the second floor are the Offices of Student Affairs and Career Services, Student Health and Counseling Services, Residential Life and Housing, and Student Activities, as well as the student offices for the Student Government Association, Student Activities Council, and student publications.

# George B. Duke Engineering and Technologies Building 

Opening in early 2023, the George B. Duke Engineering and Technologies Building will house engineering technology majors as well as computer information systems and technology, energy science and technology, and information systems. The building is equipped with state-of-the-art engineering and computer labs and will meet Leadership in Energy and Environment Design-LEED- standards. The new facility will feature a solar array on its roof, which is expected to produce about $113,000 \mathrm{kWh} /$ year and include a building dashboard that will aid in community education and engagement.

# T. Edward and Tullah Hanley Library/Administration Building 

Dedicated and named in October of 1989, the T. Edward and Tullah Hanley Library holds 84,000 volumes and more than 400 periodical titles. PITTCAT, the online computerized catalog, includes the Hanley Library's holdings as well as 3.9 million additional volumes from other University of Pittsburgh libraries. Hanley Library contains a number of small-group study areas, an AV listening/viewing room, an art gallery, and the Academic Success Center. The Hanley Library also houses the Offices of the President, Admissions, Admissions, and TRiO Student Support Services.

## Sport and Fitness Center


#### Abstract

The Sport and Fitness Center, opened in fall of 2002, provides a magnificent addition to the campus. Included in this complex is a 1,200 -seat performance arena that is designed for basketball, volleyball, and general recreation; a fully equipped Fitness Center with the latest in physical conditioning equipment; and an Exercise Arts Studio to support dance, martial arts, and aerobics instruction. In addition, the Tom L. McDowell Fieldhouse is a full-sized auxiliary gymnasium used primarily for recreation and intramurals, physical education classes, and other events. Also included is a six-lane National Collegiate Athletic Association (NCAA) regulation-length swimming pool, which supports swim instruction, recreation, and intercollegiate swim teams. The building also houses offices and facilities for the Department of Athletics and Recreational Sports, as well as offices and classrooms for Sport and Exercise Science and Athletic Training majors. The latter includes a computer lab, physiology lab, and a National Athletic Training Association (NATA) standard athletic training room. Outdoor recreational facilities include a lighted softball field, a baseball field, tennis courts, two handball courts, several outdoor basketball courts, football/softball fields, a sand volleyball court, and the Richard E. McDowell Community Trail.


## Swarts Hall

Swarts Hall contains classrooms and faculty offices for the Departments of Anthropology, Business Management, Criminal Justice, Economics, Education, English, Environmental Studies, French, Gender, Sexuality, and Women's Studies, History, International Affairs, Mathematics, Philosophy, Political Science, Psychology, Nursing, Sociology, Spanish, and Writing. The Office of the Vice President and Dean of Academic Affairs is on the second floor of Swarts. Two state-of-the-art computer labs are also available for student use. One of them also serves as an interactive television (ITV) and multimedia classroom.

## Computer Facilities

All Pitt-Bradford students have access to six computer areas (four computer-aided learning centers (CALCs), an Apple computing lab and an open lab area), giving students access to more than 130 high-powered Windows based computers and several Apple machines. Each computer area has access to a black and white laser printer. The 113 Fisher Hall CALC currently contains a variety of hardware, including a number of Windows-based computers, full-page scanner and a high quality color laser printer. The 220 Duke Hall (EITB) CALC is used for instructional purposes during the day. It contains Windows-based computers and an instructor's computer connected to an overhead projection system. It is our largest lab with 30 student computers. The CALC in 106 Swarts Hall is a 24 hour-a-day instructional lab that comes equipped with Windows-based computers and an instructor's computer connected to an overhead projection system. The CALC in 158 Sport and Fitness Center is an instructional lab that comes equipped with Windows-based computers and an instructor's computer connected to an overhead projection system. This lab has 28 student machines. The Hanley Library open lab area is an unsupervised computing area containing Windows-based systems. All computers are neworked and fully enabled for internet access. Likewise, all residence halls have wi-fi for internent access.

## Conference Services

The University provides full service conference and catering for conferences, summer camps/events, meetings, banquets, workshops and seminars. Overnight accommodations are available during the summer months (May-mid August).

## Sponsored Programs

Pitt-Bradford pursues an intentional strategy to compete for Federal and State grant monies, as well as to seek funding from corporations and private foundations. These efforts focus on the development and enhancement of academic programs and student services, and enable Pitt-Bradford to participate in regional community and economic development projects.


#### Abstract

Athletics

The University of Pittsburgh at Bradford is a Division III member of the National Collegiate Athletic Association (NCAA) and the Allegheny Mountain Collegiate Conference (AMCC). A diversified program of six intercollegiate sports for men and six intercollegiate sports for women is maintained. Men's sports are basketball, soccer, swimming, cross-country, golf, wrestling and baseball. Women's sports include basketball, bowling, soccer, swimming, volleyball, cross-country, and softball. In 2024-2025, men's lacrosse will be added and in 2025-2026, women's lacrosse will be added.

A professional medical staff, including a team physician and two certified athletic trainers, support the student athletes at Pitt-Bradford. Intercollegiate and recreational sports are an integral part of campus life at the University of Pittsburgh at Bradford. The intercollegiate athletic program is consistent with the established University mission dedicated to the education of undergraduate students prepared to deal effectively with and contribute to a changing society. A balance between academic achievement and athletic accomplishment is emphasized. The University of Pittsburgh at Bradford believes in athletics as a valuable part of a well-rounded education.


## Career Services

We're excited to support you on your path to personal and professional transformation! Whether you're sure of what you want to do or are just beginning to think about what lies ahead, there's something for you at Pitt-Bradford Career Services. We offer person-centered career coaching to explore possibilities, develop a professional identity and get connected with opportunities. Seek us out early, ask questions, attend our workshops, and get the information you need to make thoughtful choices about your future. We strive for equity in the delivery of our career-readiness support offering a full suite of resources to empower students to turn possibility into purpose and purpose into a profession.

## Other Student Services

TRiO Student Support Services (SSS) program provides opportunities for academic development, assists students with basic college requirements and serves to motivate students toward the successful completion of the college education. The goal of TRiO-SSS is to increase the college retention and graduation rates of its participants and facilitate the process of transition from one level of higher education to the next. Services provided include but are not limited to: basic study skill instruction; and academic, personal, career, or financial counseling.

## Division of Student Affairs

The Division of Student Affairs is concerned with creating an atmosphere on campus that is complementary to and supportive of the academic environment. This division includes the Offices of the Vice President and Dean of Student Affairs, , Counseling Services, Disability Resources, Health Services, Residence Life and Housing, Student Care and Conduct, Student Engagement. Each of these offices provides important support services for students, as well as cocurricular programs that enhance the college experience for all. Offices for the Division of Student Affairs are located on the second floor of the Frame-Westerberg Commons.

## Counseling Services

Counseling services are available to students who have personal concerns or problems. The director of Counseling services and the counseling services therapist are licensed mental health professionals, providing individual and group counseling and crisis intervention, as well as programs to assist students in identifying and resolving problems that may interfere with their adjustment. Referrals for counseling or psychiatric services are also sometimes made to The Guidance Center, a community counseling facility located near campus. Additional community services and counseling services through the main campus in Oakland can be utilized. Confidentiality is maintained in all contacts.

## Disability Resources and Services

Disability Resources and Services (DRS) is the designated department to determine reasonable accommodations and services for students. DRS provides equal opportunities in higher education to academically qualified students with disabilities. Students with a documented learning, psychiatric, or medical disability, are eligible for services. Students with disabilities are integrated as completely as possible into the University experience. Through an interactive process, the coordinator works individually with each student to provide access to University classes, housing, programs, and activities.

## Health Services

At Health Services, registered nurses provide health services and programs for Pitt-Bradford students. Primary assessment and treatment of health problems and injuries, health counseling, and referrals are included in the scope of service. A campus physician provides verbal consultation daily and a monthly medical clinic on campus.

The Student Health Center also includes a Self-Care Cabinet with free over-the-counter medications and supplies for colds, cuts, and upset stomachs.

## Immunization Requirements

Vaccines greatly reduce the risk of becoming seriously ill from - or spreading - common diseases. They're the best way to protect yourself and your community from certain preventable diseases. We require all students to provide documentation of immunization against measles, mumps, and rubella (MMR); chicken pox (Varicella); and COVID-19. For students living on campus, we also require vaccination for Meningitis ACYW (meningococcal conjugate vaccine).

Effective December 6, 2021, the University of Pittsburgh requires all Pitt affiliates on all campuses to be vaccinated against COVID-19 or have an approved exemption. As of the summer of 2023, this requirement is still in effect and proof of vaccination or exemption approvals is necessary for all faculty, staff and students. For the most up-to-date information, to upload your proof of immunization or to request an exemption, please visit Vaccine Requirement | Power of Pitt | University of Pittsburgh.

ENTER AND UPLOAD YOUR IMMUNIZATION RECORD FOR MMR, VARICELLA, MENINGITIS AND COVID19
If you need assistance with understanding the COVID-19 exemption process, completing forms or uploading documents, you may email exemptions@pitt.edu.

Students may be granted an exemption from any required immunization, if needed. If you need assistance with the Varicella, MMR or Meningitis ACYW vaccine exemption process, completing the forms or uploading the documents, please contact UPB Health Services at 814-362-5272 or upb.healthservices@pitt.edu.

## Community Engagement

Student Affairs works with individual students and student organizations to connect them with community service projects and civic engagement opportunities that are compatible with their interests and goals. Students have the opportunity to get involved in a variety of community service projects in the Bradford area and beyond. Student Affairs hosts Leadership Development opportunites and at the end of the year, students are recognized at the Leadership and Service Awards Ceremony for their contributions to the university and the community.

## Residential Life and Housing

Pitt-Bradford has established a distinctive approach to campus living that includes a wide variety of living options. Forty- eight townhouse apartments, thirty-nine garden apartments, and 120 suite-style apartments provide accommodations for two to six students each and are complete with kitchenettes and living rooms. Livingston Alexander, our newest residence hall, has 92 traditional- style living spaces with up to two students per bedroom, and includes communal bathrooms, lounges, and work out areas. Thirty-one, specially trained, resident advisors (RAs) staff all of our residence halls.

Freshmen and sophomores whose permanent homes are not within commutable distance (as defined by the University) are required to live on campus unless they are residing in the local area with members of their family. Juniors, seniors, and students 21 years of age or older may live off campus. Pitt-Bradford Offers a 260 -meal plan, a 225 -meal plan, and a 195 -meal plan that are available to all students. Upperclassman, may also select the 145 meal option. All of our meal plans come with the option of Flex Dollars. Flex Dollars is are money that can be used to buy food from the vending machines, Bookstore, Commons Café, Hanley Library Café, or the Marilyn Horne Café.

Resident students must submit a housing application and a housing reservation fee before being assigned to a room. Students may indicate their choice of roommates; however, the University reserves the right to make all room assignments.

Rules, regulations, and policies regarding on-campus living are published in the Pitt-Bradford Student Handbook and the residential student Handbook, which are distributed to all students at the beginning of the term.

## Student Activities

More than 40 campus clubs and organizations exist to serve the cocurricular needs of students. In addition, the Student Activities Council provides students with a variety of programs, which includes but is not limited to lectures, comedy, dances, concerts, trips, and special events (such as Alumni and Family Weekend, Best Week Ever). The director of student engagement serves as advisor to the Student Activities Council and is available to work with students on planning campus events. Most programs in student activities take place in the Frame-Westerberg Commons (student union facility), which provides a variety of facilities to help meet the cocurricular needs of the campus community.

## Student Care \& Conduct

Student Care \& Conduct assists students with identifying resources to support them in regard to a wide variety of issues and concerns, and aids students in making connections to those resources. Additionally, Student Care \& Conduct works to educate students on engaging responsibly with the campus community, and to hold them accountable via the University conduct process when violations of the Student Code of Conduct occur. The Director of Student Care \& Conduct coordinates and advises the Student Judicial Board, which is authorized to hear cases of student policy violations and make recommendations to the vice president and dean of student affairs regarding what sanctions, if any, should be issued.

## Recreational Intramurals and Club Sports

The primary goal of the intramural and recreational sports program is to provide individuals of various ability levels with opportunities for fun and leisure through recreational competition. The intramural and recreational sports program provides a year-round schedule for seasonal sports with voluntary participation in regularly organized and supervised activities. Under the direction of the director of recreation and intramurals, students organize and implement most activities.

The intramural and recreational sports program includes opportunities for both men and women in team, individual, coed, and leisure-time sports such as basketball, flag football, tennis, softball, volleyball, indoor soccer, downhill and cross-country skiing, fishing, hiking, camping, canoeing, and bicycling. Opportunities to compete in club sports programs are also available. Outdoor recreation facilities include a lighted softball field, outdoor basketball courts, tennis courts, soccer/football fields, and a sand volleyball court.

## Campus Ministries

The Board of Campus Ministries is composed of local Bradford clergy representing various faiths. This ecumenical board provides programs for the campus community throughout the year and encourages interested students to become involved in one of the local churches or synagogue. During the fall and spring terms, Bible studies and retreats are made available and are generally coordinated by representatives of campus ministries and faculty advisors. Worship services are offered to students on the weekends and the chapel is open daily for prayer, meditation and reflection.

## First Year Experiences (FYX) and New Student Orientation (NSO)

FYX and NSO provide meaningful programs and opportunities to support the transition and engagement of new students and their supporters, and to establish a sense of belonging and mattering in our campus community. The programs are intentionally designed to lay the foundation for students to thrive academically, flourish socially, and transform personally during and beyond their time at Pitt-Bradford. Through the FYX/NSO programs, new Panthers participate in a mix of engaging and educational activities that serve to connect with Pitt-Bradford's community through open dialogue, ongoing mentorship, and an inclusive environment reflective of our university mission and goals.

## Campus Government and Judicial Organizations

## Student Government Association

The Student Government Association (SGA) is elected by the student body and is authorized by the University to represent students on all matters related to college life. SGA is headed by an executive board of seven students: president, vice president, secretary, treasurer, Student Activities Council president, parliamentarian, and the Diversity, Equity \& Inclusion Coordinator. The purpose of SGA is to provide students with opportunities to participate in the decision-making processes of the University, to consider and make recommendations on all phases of student life, and to serve as a principal forum for discussion and dialogue regarding student concerns. The SGA also allocates all revenues to clubs and organizations that are generated through the Student Activities Fee.

## Student Judicial Board

The Student Judicial Board is authorized to hear cases of student policy violations and make recommendations to the vice president and dean of student affairs regarding what sanctions, if any, should be imposed.

## Greek Council

The Greek Council is the governing body that oversees the affairs and concerns of the six social fraternities and sororities. Headed by an Executive Board comprised of representatives from each Greek Letter organization. The Greek Council meets weekly to establish standards and coordinate activities for fraternity and sorority life. In addition, it reviews and recommends dates for fall and spring term new member programs. Greek Council also serves as the judicial body for Greek letter organizations that have violated Greek Council and/or University policies.

## Student Campus Media

The college literary magazine, Baily's Beads, publishes students' prose, poetry, and art once a year at the end of the spring term. WDRQ is the Pitt-Bradford college radio station, which broadcasts to the campus at 1620 on the AM dial. Membership on the radio staff is open to all students.

## Clubs and Organizations

The majority of student clubs and organizations are approved and funded by the Student Government Association. Any group of students desiring to form a new club or organization may visit the Office of Student Engagement for more information.

## Registered and Recognized Clubs and Organizations (Funded by SGA)

African Student Association
Art Club
Black Box Improvers Improv Team
Black Student Union
Christ in Action
Colleges for a Cure
Creative Engineering Club
Criminal Justice Club
Crochet Club
Diamond Steppers
Dungeon Divers
Education Club
Environmental Club
Garden Club
Greek Council
Habitat for Humanity
Hospitality Organization of Students at Pitt (HOSP)
International Student Association
Latino and Caribbean American Student Association of Bradford (LACASA)
National Society of Leadership and Success (NSLS)
Pre-Med Club
Pride Alliance
Psychology Club
Rotaract Club
Sport Business and Science Club
Student Activities Council (SAC)
Student Investment Club
Student Nurses Organization (SNO)
Yoga and Meditation Club

## Academic Clubs

Art Club
Baily's Beads literary magazine
Criminal Justice Club
Education Club
Environmental Studies Club
History/Political Science Club
Hospitality Organization of Students at Pitt
Student Nurse Organization

## Registered and Recognized Clubs and Organizations (Not Funded by SGA)

Blue \& Gold Society
Student Alumni Association
Cheerleading
E-Sports
Hockey Club
Outdoor Club
Intramurals
Student Athlete Advisory Committee (SAAC)

# Registered Social Organizations (Not Recognized, Not Funded by SGA) 

Gamma Psi Omega
Lambda XI
Phi Beta Chi
Phi Kappa Epsilon
Theta Sigma Delta
Zeta Alpha Chi

## Honor Societies

*Alpha Lambda Delta freshman honor society -- membership in this national organization is open to any full-time student pursuing a baccalaureate degree who attains a grade point average of 3.5 or higher during the first term of study. A student whose cumulative GPA is 3.5 or higher after two terms of full-time study is also eligible for membership. The purpose of this organization is to recognize and encourage academic excellence during the freshman year and beyond.

* Alpha Sigma Lambda honor society for non-traditional/adult students -- membership in this organization is open to nontraditional students, usually 25 years of age or older, who have distinguished themselves academically. To be eligible, a student must have earned at least 30 credits at PittBradford and carry a minimum cumulative grade point average of 3.5.
* Beta Beta Beta biological honor society -- membership in this national organization is open to seniors, juniors, and second semester sophomores who have excelled in the field of biology. New members are inducted in the Spring Term.
* Chi Alpha Sigma national college athlete honor society -- membership in this national society is open to student athletes who have earned an athletic letter in their sport(s). Chi Alpha Sigma requires a minimum of junior status in academic standing and must have earned 3.4or higher. New members are inducted at the athletic banquet in April.
* Phi Epsilon Kappa honorary fraternity - membership in this national fraternity is open to men and women pursuing academic majors in the sport and exercise science department. This organization is open to eligible upper-class students who have a minimum cumulative grade point average of 3.0 , as well as a 3.0 in the academic major.
* Pi Gamma Mu social science honor society - membership in this international organization is open to seniors and juniors who are in the upper 35\% of their class, have completed at least 20 credit hours in the social sciences, and have a GPA of 3.0 or higher. New members are inducted during the Spring Term.
* Psi Chi psychology honor society - membership in this national organization is open to students enrolled as a Psychology major or minor who have completed at least 3 terms or equivalent of full-time college coursework, have completed at least 9 credit hours of psychology courses, have a minimum cumulative GPA of 3.0 , and a minimum 3.0 GPA for psychology courses.
* Sigma Tau Delta English honor society -- membership in this international honor society is open to students who are studying English language and literature, have earned at least a 3.0 quality point average overall and in all ENG, WRITNG and CLP courses beyond ENG 102, and must have completed three semesters of university work.


## Administrative Officers, Schools, and Campuses

## Advisory Board Members

## Elected Members

Timothy J. Asinger
Gregory P. Bauer
Gregory W. Booth
John W. Bryner III
Jack Campbell, Jr. '67-'69
R. Michael Carlson

William W. Chapman '86
John M. Cleland, Past Chair
Carlyle C. Conn '73-'75
Joseph C. DeMott, Jr*
Martin J. Digel
George B. Duke
Robert C. Esch
Susan I. Evans
Frederick W. Fesenmyer
Howard L. Fesenmyer*
John R. Foerstner '79
Donald J. Fredeen
Pamela B. Fredeen
Stephen P. Grillo
James D. Guelfi
Craig A. Hartburg '73-'75,
Immediate Past Chair
David G. Higie '74-'76
William F. Higie*
Mary M. Huber
Richard S. Johnson '88-'90
Kenneth C. Kane
Ann O. Kessel*
William J. Krieg '64-'66*
Douglas E. Kuntz '88
William J. Leven, Jr.
Christopher L. Luke '94
Sandra Macfarlane '80-'82
John M. Marasco
Julie A. Marasco
Raymond W. McMahon
Madeline B. Miles
Christopher D. Napoleon '87-'88
Elaine F. Northrup '68-'69
Ron Orris
Jill M. Owens '93
Mark Paup
George Repchick '82
JoAnne Ryan '99
John H. Satterwhite '65-'67
Robert L. Saunders, Secretary
Jeannine Schoenecker, Chair
Richard B. Seager

## Emeritus Members (*Deceased)

Thomas R. Bromeley
Robert B. Bromeley *
Bert Fisher *
Robert D. Galey *
Harvey L. Golubock*
Kenneth M. Jadlowiec
Dennis W. Lowery '63-'65 *
William Mackowski *
Edwin J. Medden *
Virginia L. Miles *
J. Michael Mitchell

James E. O'Mara '96 *
John R. Osborne, Jr.
D. Harvey Phillips *

Henry P. Pruch *
Lester Rice *
Mary Gruber Swarts *
Robert H. Wick *
Hilton L. Woodruff*

## Ex Officio Members

Richard Esch -President/UPB
Shane Oschman - OECD
Jim Chorney- North Central PA Regional Planning \& Development Commission
Gary Buchsen - Superintendent/Port Allegany
Martin T. Causer - State Representative'96
Danielle Munksgard Pearson - PBAA Chair
Dennis Crotzer - Superintendent/Johnsonburg
Linda Devlin - ANF
Heidi Scrivo Passmore- Bradford Chamber
Anna Kearney- Acting Superintendent/Kane
Brice Benson - Superintendent/Smethport
Heather McMahon Vargas - Superintendent/Ridgway
Katharine Pude - Superintendent/Bradford
Kathy L. Rapp - State Representative
Chris Dush - State Senator
Matthew D. Splain - Superintendent/Otto-Eldred
G. Brian Toth - Superintendent/St. Marys

## Honorary Members (*Deceased)

Livingston Alexander
Edwin Clemens *
Sarah B. Dorn *

Fr. Leo Gallina
Harry R. Halloran, Jr.
Marilyn Horne
Richard L. Kessel
Robert B. Laing, Jr.*
Richard E. McDowell
John E. Peterson
R. Dauer Stackpole'65-66 '68
D. Blaise Wick

Harriett B. Wick

## Full -time Faculty

$\mathrm{A}|\mathrm{B}| \mathrm{C}|\mathrm{D}| \mathrm{E}|\mathrm{F}| \mathrm{G}|\mathrm{H}| \mathrm{I}|\mathrm{J}| \mathrm{K}|\mathrm{L}| \mathrm{M}|\mathrm{N}| \mathrm{O}|\mathrm{P}| \mathrm{Q}|\mathrm{R}| \mathrm{S}|\mathrm{T}| \mathrm{U}|\mathrm{V}| \mathrm{W}|\mathrm{X}| \mathrm{Y} \mid \mathrm{Z}$

Pouria Ahmadi, Assistant Professor of Engineering, Ph.D., Ontario Tech University

Philip Atteberry, Associate Professor of Composition, Ph.D., Washington University
Kimberly M. Bailey, Reference/Instruction Librarian, M.L.I.S., University of Pittsburgh
Catherine A. Baldwin, Visiting Librarian 1, M.A., Manhattanville College

Benjamin Bickford, Assistant Professor of Nursing, M.S.N., Drexel University

Mary K. Boser, Assistant Professor of Nursing, M.S.N., University of Phoenix

Marius G. Buliga, Professor of Mathematics, Ph.D., University of Pittsburgh
Jodi A. Burns, Assistant Professor of Sport and Recreation Management, Ed.D., United States Sports Academy
Lynette M. Campogiani, Visiting Assistant Professor of Hospitality Management, MPPM, University of Pittsburgh
Yong-Zhuo Chen, Professor of Mathematics, Ph.D., University of Pittsburgh

Ching Hsiao Chiang, Assistant Professor of Marketing, Ph.D., University of Toronto
Jonathan Chitiyo, Associate Professor of Education, Ph.D., Southern Illinois University

Charles C. Choo, Assistant Professor, Ph.D., University of Notre Dame
Robin E. Choo, Assistant Professor of Forensic Science, Ph.D., University of Maryland
William Clark, Assistant Professor of Secondary Education, D.Ed. from Pennsylvania State University
John J. Crawford, Assistant Professor of Accounting, M.B.A., Saint Bonaventure University

Mary Jane Daugherty, Instructor of Nursing, M.S.N., Carlow University
Amanda Davis, Visiting Assistant Professor of Health and Physical Education M.S. Edinboro University

Helma G E de Vries-Jordan, Associate Professor of Political Science, Ph.D., University of Maryland, College Park
Martha M. Dibble, Assistant Professor of Nursing, D.N.P., American Sentinel University
Mary A. Dinger, Assistant Professor of Nursing, M.S.N., University of Pittsburgh
Mihaela-Christina Drignei, Associate Professor of Mathematics, Ph.D., Iowa State University

Kevin A. Ewert, Professor of Theater, Ph.D., University of Birmingham
Obinna Ezeihuoma, Assistant Professor of Criminal Justice, Ph.D., Texas Southern University
Warren Fass, Associate Professor of Psychology, Ph.D., Ohio University
Drew E. Flanagan, Assistant Professor of History, Ph.D.,Brandeis University
Elizabeth A. Flickner, Assistant Professor of Nursing, M.S.N., Robert Morris University
Ovidiu D. Frantescu, Associate Professor of Environmental Science, Ph.D., Kent State University
Shailendra N. Gajanan, Associate Professor of Economics, Ph.D., University of Pittsburgh
Tony Gaskew, Professor of Criminal Justice, Ph.D., Nova Southeastern University
Douglas J. Graham, Visiting Instructor of Emergency Medical Services and Health Sciences, M.S., Canisius College
Amy R. Gresock, Assistant Professor of Business Management, Ph.D., University of Central Florida
Jeffrey C. Guterman, Associate Professor of Communications, M.A., Oregon State University
Tracee L. Howell, Associate Professor of Composition, Ph.D., University of Buffalo
Orin A. James, Assistant Professor of Biology, MS, Binghamton University
Max F. Jensen, Assistant Professor of Spanish and Comparative Literature, Ph.D., Pennsylvania State University
Mark F. Kelley, Assistant Professor of Exercise Science, Ph.D., Capella University
Michael Klausner, Associate Professor of Sociology, Ph.D., University of Illinois
Hallie L. Kleiner, Director of the Mathematics Learning Center \& Instructor of Mathematics, M.S., Rochester Institute of Technology
Matthew M. Kropf, Associate Professor of Engineering Technology and Energy Programs, Ph.D., Pennsylvania State University
Catherine A. Kula, Assistant Professor of Composition, M.A., Saint Bonaventure University
Patricia Lanzon, Assistant Professor of Early Level Education, Ph.D., Wayne State University
Keri Last, Assistant Professor of Nursing, M.S.N. Clarion/Slippery Rock Universities
Kira M. Leck, Associate Professor of Psychology, Ph.D., Texas A\&M University
Sunyoung Lee, Assistant Professor of Art, M.S. University of California, Berkeley
Andrew Leslie, Assistant Professor of Nursing, D.N.P. Gannon University
Gang Liu, Assistant Professor of Mechanical Engineering, Ph.D., Utah State University and Zhejiang University
Allen Maxson, Visiting Assistant Professor of Business Management, M.B.A., St. Bonaventure University
Nancy G. McCabe, Professor of Writing, Ph.D., University of Nebraska
Rebecca A. McHugh, Assistant Professor of Psychology, Ph.D., University of Pittsburgh
David K. Merwine, Associate Professor of Biology, Ph.D., University of Alabama at Birmingham
Matthew Moonan, Visiting Assistant Professor of Accounting, M.B.A., St. Bonaventure University
Olanrewaju B. Morenikeji, Assistant Professor of Biology, Ph.D., Federal University of Technology
Julia Morgan, Assistant Professor of Philosophy, Ph.D., University of Hawaii at Manoa

Mary N. Mulcahy, Associate Professor of Biology, Ph.D., University of Missouri
Richard Mulcahy, Professor of History and Political Science, Ph. D., West Virginia University
Ryan Myers, Assistant Professor of Chemistry, Ph.D., Pennsylvania State University
'Biodun J. Ogundayo, Associate Professor of French and Comparative Literature, PhD, State University of New York At Buffalo
Femi Oloye, Assistant Professor of Chemistry, Ph.D., University of Aberdeen
Gregory L. Page, Associate Professor of Psychology, Ph.D., University of Nebraska
Denise A. Piechnik, Associate Professor of Biology, Ph.D., University of California at Davis
Cassandra J. Preston, Assistant Professor of Exercise Science, M.S. East Stroudsburg University
Kristen Reynolds, Visiting Assistant Professor of Biology, M.A.T. Miami University
Behnaz Beth Rezaie, Assistant Professor of Mechanical Engineering, Ph.D., Ontario Tech University
Stephen F. Robar, Associate Professor of Political Science, Ph.D., Northern Arizona University
Josie Rush, Visiting Assistant Professor of Composition, Ph.D., Duquesne University
Daniel D. Sadowsky, Assistant Professor of Chemistry, Ph.D., University of Minnesota
Matthew P. Salvia, Visiting Instructor of Composition, ABD, Binghamton University
John Sebastiani, Visiting Assistant Professor of Biology, Ph.D., University of Miami
Salma Shailk, Assistant Professor of Computer Information Systems and Technology, Ph.D., University of Toledo
David S. Soriano, Associate Professor of Chemistry, Ph.D., University of Nebraska
Zachary K. Stark, Instructor of Exercise Science, M.S., California University of Pennsylvania
Gary Tessmer, Assistant Professor of English Composition, M.S., Clarion University of Pennsylvania
Erickosowo Tiku, Assistant Professor of Economics, Ph.D., Southern Illinois University
Nancy Tress, Associate Professor of Biology, Ph.D., University of Pittsburgh
Jean Truman, Associate Professor of Nursing, D.N.P., Case Western Reserve University
Donald I. Ulin, Associate Professor of English, PhD, Indiana University
Ye Wang, Associate Professor of Computer Science, PhD, Washington State University
Hallie L. Ware, Director of the Mathematics Learning Center \& Adjunct Instructor of Mathematics, M.S., Rochester Institute of Technology
Birney R. Young, Assistant Professor of Communications, M.A., University of Pittsburgh
Hashim A. Yousif, Professor of Physics, PhD, University of Arizona

## Part-time Faculty

Gary Anderson, Adjunct Instructor of Engineering, B.S., Carnegie Mellon University

Karen T. Bell, Adjunct Instructor of Writing, B.A. Pennsylvania State Univeristy
Ron Binder, Adjunct Instructor of Mathematics, Ph.D., University of Georgia
Margaret S. Brown, Adjunct Instructor of Broadcast Communications, M.S. Wilkes University
Jeremy Callinan, Adjunct Instructor of Computer Information Systems and Technology, B.S. University of Pittsburgh
Ellen P. Cecchetti, Adjunct Instructor of Nursing, M.S.N., University of Pittsburgh
Stephanie Eckstrom, Adjunct Instructor of Sociology, M.S.W., University of Maryland at Baltimore
Robert J. Ellison, Adjunct Instructor of Computer Information Systems and Technology, M.A.S., University of Denver
Steve Ellison, Adjunct Instructor of Computer Information Systems and Technology, B.S. University of Pittsburgh
Lisa M. Fiorentino, Adjunct Instructor of Nursing, Ph.D., University of Buffalo
Adina L. Frantescu, Adjunct Instructor of Environmental Science, Ph.D., Kent State University
Regina C. Gabriel, Adjunct Instructor of Music, M.M., Arizona State University
Rekha Gajanan, Adjunct Instructor of International Studies, M.A., University of Delhi
Matthew Hileman, Adjunct Instructor of Art, B.A., Edinboro University
Joshua Kramer, Adjunct Instructor of Computer Information Systems and Technology, M.S. Rochester Institute of Technology

William E. Kline, Adjunct Instructor of Computer Information Systems \& Technology, M.S., University of Pittsburgh
Wendy J. Krenzel, Adjunct Instructor of Chemistry, M.S., St. Bonaventure University

Scott McKibbin, Adjunct Instructor of Computer Information Systems and Technology, M.B.A., Kennesaw State University - University of Georgia
Richard J. Minard, Adjunct Instructor of Art, M.F.A., Rochester Institute of Technology
Anne Mormile, Adjunct Instructor of Art, M.A., Edinboro University
Melissa K. Odorisio, Adjunct Instructor of Chemistry, M.A., SUNY Fredonia
Martha Rogus, Adjunct Instructor of Composition, M.A., Gannon University
Janice C. Russell, Adjunct Instructor of Education, M.S., St. Bonaventure University
Ashley M. Shade, Adjunct Instructor of Business Law, Ph.D., Duquesne University
Richard L. Shires, Adjunct Instructor of Chemistry, M.S., State University of New York
Aaron Straus, Adjunct Instructor of Engineering, M.S. American College of Education
Amysue Strickland, Adjunct Instructor of Geography, M.S., University of Southern Mississippi
David Ware, Adjunct Instructor of Mathematics, B.S., University of Pittsburgh

## Division of Behavioral and Social Sciences

Helma G.E. de Vries-Jordan, Chair
Helma De Vries-Jordan, Associate Professor of Political Science

Warren Fass, Associate Professor of Psychology
Drew Flanagan, Assistant Professor of History
Tony Gaskew, Professor of Criminal Justice
Michael Klausner, Associate Professor of Sociology
Kira M. Leck, Associate Professor of Psychology
Rebecca McHugh, Assistant Professor of Psychology
Julia Morgan, Assistant Professor of Philosophy
Gregory L. Page, Associate Professor of Psychology
Stephen F. Robar, Associate Professor of Political Science

# Division of Biological and Health Sciences 

David Merwine, Chair
Benjamin Bickford, Assistant Professor of Nursing
Mary Boser, Assistant Professor of Nursing
Mary Jane Daugherty, Instructor of Nursing
Mary Dinger, Assistant Professor of Nursing
Elizabeth Flickner, Assistant Professor of Nursing
Douglas Graham, Visiting Instructor of EMS and Health Sciences
Orin James, Assistant Professor of Biology
Mark Kelley, Assistant Professor of Exercise Science
Andrew Leslie, Assistant Professor of Nursing
Keri Last, Assistant Professor of Nursing
David Merwine, Associate Professor of Biology
Olanrewaju Morenikeji, Assistant Professor of Biology
Mary Mulcahy, Associate Professor of Biology
Denise Piechnik, Associate Professor of Biology
Cassandra Preston, Assistant Professor of Exercise Science
Kristen Reynolds, Visiting Assistant Professor of Biology
John Sebastiani, Visiting Assistant Professor of Biology
Zachary Stark, Instructor of Exercise Science
Nancy Tress, Associate Professor of Biology
Jean Truman, Associate Professor of Nursing

## Division of Communication and the Arts

Jeffrey Guterman, Chair<br>Phillip Atteberry, Associate Professor of English<br>Kevin Ewert, Professor of Theater<br>Jeffrey Guterman, Associate Professor of Communications<br>Tracee Howell, Assistant Professor of Composition<br>Max F. Jensen, Assistant Professor of Spanish and Comparative Literature<br>Catherine Kula, Assistant Professor of Composition<br>Sunyoung Lee, Assistant Professor of Art<br>Nancy McCabe, Professor of Writing<br>'Biodun Ogundayo, Associate Professor of French and Comparative Literature<br>Matthew Salvia, Visiting Instructor of Composition<br>Gary Tessmer, Assistant Professor of Composition<br>Donald Ulin, Professor of English<br>Birney Young, Assistant Professor of Communications

## Division of Management and Education

Shailendra Gajanan, Chair
Jodi Burns, Assistant Professor of Sports and Recreational Management
Lynette Campogiani, Visiting Assistant Professor of Hospitality Management
Ching Hsiao Chiang, Associate Professor of Marketing
Jonathan Chitiyo, Associate Professor of Education
John Crawford, Assistant Professor of Accounting
Amanda Davis, Visiting Assistant Professor of Health and Physical Education
Shailendra Gajanan, Professor of Economics
Amy Gresock, Assistant Professor of Business Management
Patricia Lanzon, Assistant Professor of Early Education
Allen Maxon, Visiting Assistant Professor of Business Management
Matthew Moonan, Visiting Assistant Professor of Accounting
Salma Shaik, Assistant Professor of Computer Information Systems and Technology
Erickosowo Tiku, Assistant Professor of Economics
Ye Wang, Associate Professor of Computer Information Systems \& Technology

# Division of Physical and Computational Sciences 

Matthew Kropf, Chair
Marius Buliga, Professor of Mathematics
Charles Choo, Assistant Professor of Physics
Robin Choo, Assistant Professor of Forensic Science
Mihaela-Christina Drignei, Associate Professor of Mathematics
Ovidiu Frantescu, Assistant Professor of Environmental Science
Matthew Kropf, Associate Professor of Engineering Technology and Energy Programs
Gang Liu, Assistant Professor of Mechanical Engineering Technology
Ryan Myers, Assistant Professor of Chemistry
Femi Oloye, Assistant Professor of Chemistry
Behnaz (Beth) Rezaie, Assistant Professor of Mechanical Engineering Technology
Daniel Sadowsky, Assistant Professor of Chemistry
David Soriano, Associate Professor of Chemistry
Hallie Ware, Director of the Mathematics Learning Center and Instructor of Mathematics
Hashim Yousif, Professor of Physics

## Emeriti Faculty and Administrators (Chronological Listing)

Dr. Patricia J. Bianco, Professor Emerita of Theatre
Dr. August R. Freda, Professor Emeritus of Engineering
Dr. Erik G. R. Nakjavani, Professor Emeritus of Humanities
Dr. Jean Ross-Franklin, Associate Professor Emerita of Sociology
Dr. Richard E. McDowell, President Emeritus of the University of Pittsburgh at Bradford
Dr. Carol A. Baker, Professor Emerita of Biology
Dr. Edgar M. Hopkins, Associate Professor Emeritus of Geology
Dr. Andrew A. Dzirkalis, Associate Professor Emeritus of Political Science
Dr. David L. Myslewski, Associate Professor Emeritus of English
Dr. Samuel D. Fohr, Professor Emeritus of Philosophy
Mr. John Slimick, Associate Professor Emeritus of Computer Science

Mr. Richard S. Nelson, Associate Professor Emeritus of Business Management
Dr. J. Michael Stuckart, Associate Professor Emeritus of Anthropology
Dr. Assad I. Panah, Professor Emeritus of Geology
Ms. Isabelle Champlin, Assistant Professor of Anthropology
Ms. Lizabeth Matz, Associate Professor Emerita of Business Management
Dr. Richard Melka, Professor Emeritus of Mathematics
Dr. Gautam Mukerjee, Associate Professor Emeritus of Economics
Mr. Timothy F. Ziaukas, Professor Emeritus of Public Relations
Dr. Livingston Alexander, Professor Emeritus and President Emeritus of the University of Pittsburgh at Bradford
Dr. Richard Frederick, Professor Emeritus of History and Political Science
Dr. Lisa M. Fiorentino, Associate Professor Emeritus of Nursing
Dr. Steven Hardin, Vice President and Dean Emeritus of Academic Affairs
Mr. Donald Lewicki, Associate Professor Emeritus of Information Systems

## Staff

## Administration

Richard T. Esch, Interim President
James L. Baldwin, Vice President for Enrollment Management
Michael Davila, Vice President and Dean of Student Affairs
David E. Fitz, Vice President of Institution Integration and Community Engagement
Jeffrey Johnson, Vice President and Dean of Academic Affairs
Bret A. Butler, Director of Athletics and Recreational Sports
Pat Frantz Cercone, Executive Director of Communications and Marketing
Christy L. Ruffner, Executive Director of Philanthropy \& Strategic Partnerships

## Office of the President

Richard T. Esch, President
Christy Ruffner, Executive Director of Philanthropy \& Strategic Partnerships
Matthew Kropf, Director of the Energy Institute
Michelle Therminy, Executive Scheduler

## Admissions

Alexander P. Nazemetz, Associate Vice President for Enrollment Management and Director of Admissions
Robert C. Dilks Jr., Assistant Vice President for Enrollment Management and Director of Transfer and Nontraditional Student Recruitment
Tad M. Haight, Assistant Director of Admissions
Collin Maines, Admissions Counselor
Jacob McNabb, Admissions Counselor
Katherine Moyer, Admissions Counselor

## Academic Affairs

Jeffrey Johnson, Vice President and Dean of Academic Affairs
Tony Gaskew, Associate Dean of Academic Affairs and Professor of Criminal Justice
Lori J. Smith, Administrative Assistant to the Dean, Academic Affairs
Donna Meister, Financial Assistant and Office Manager, Academic Affairs
Bernard J. Picklo, Jr., Academic Technology Integrator
Kevin Ewert, Chair of the Division of Physical and Computational Sciences
Janet M. Shade, Administrative Assistant, Division of Physical and Computational Sciences
Helma de Vries-Jordan, Chair of the Division of Behavioral and Social Sciences
Lindsey Brandon, Administrative Assistant, Division of Behavioral and Social Sciences
Shailendra N. Gajanan, Chair of the Division of Management and Education
Nancy A. Kloss, Administrative Assistant, Division of Management and Education
Jody A. Randolph, Program and Database Coordinator for Education and College in the High School
Jeffrey C. Guterman, Chair of the Division of Communication and the Arts
Shelley Whitman, Administrative Assistant, Division of Communication and the Arts
David Merwine, Chair of the Division of Biological and Health Sciences
Laurie B. Dennis, Administrative Assistant, Division of Biological and Health Sciences

## Academic Support Services

Pamela Thompson, Assistant Dean for Academic Success and Advising
Stacey Colosimo, Academic Advisor
Vacant, Coordinator, Academic Coaching \& Tutoring Center (ACTC)
Vacant, Administrative Assistant Academic Success and Advising
Kimberly J. Marcellin, Program Manager, TRIO Student Support Services
Mary Beth Garvin, Retention Specialist, TRIO Student Support Services
Patricia D. Kane, Academic Advisor, TRIO Student Support Services
Vacant, Administrative Assistant, TRIO Student Support Services
Hallie Ware, Director of the Mathematics Learning Center
Tracee L. Howell, Director of the Writing Center
Catherine A. Kula, Assistant Director of the Writing Center

## Arts Programming

Courtney L. Mealy, Interim Director of Arts Programming
Vacant, Assistant Director of Arts Programming
Matthew Hileman, Director of the Marilyn Horne Museum and Exhibit Center
John Oberg, Technical Director

## Athletics and Recreational Sports

Bret A. Butler, Director of Athletics and Recreational Sports
Tina M. Phillips, Assistant Athletic Director and Head Coach for Women's Softball
Richard L. Kahle, Facilities and Fitness Center Coordinator
Pamela J. Krepps, Administrative Assistant
Matthew T. Lovell, Sports Information Director
Randy L. Ruffner Jr., Director of Intramurals, Recreation, and Club Sports
Mitch Vleminckx, Head Athletic Trainer
Lauryn Kahle, Interim Assistant Athletic Trainer

Rachel Frisina, Administrative Assistant (Part-Time)
Jesse G. DeLoof, Head Coach for Men's Basketball
Zachary Foster, Head Baseball Coach
Melissa A, Graham, Head Coach for Women's Soccer
Blake A. Heim, Head Coach for Men's Wrestling
Gregg Hoover, Head Coach for Women's Bowling (Part-Time)
Kaserra A. Owens, Head Coach for Women's Basketball
Thomas Roof, Head Coach for Women's Volleyball (Part-Time)
Chelsea A. Schwab, Head Coach for Men's and Women's Swimming
Keith G. Stauffer, Head Coach for Men's Golf (Part-Time)
Nathan Whitehurst, Head Coach for Men's Soccer

## Auxiliary Services

Christopher Clifford, Associate Vice President for Business Affairs and Director of Auxiliary Services Leasa A. Maley, Assistant Director of Auxiliary Services
Kyle Viola, Director of Conference and Event Services
Vacant, Conference Services Manager
Randal D. Stiles, Business Operations Manager, Continuing Education and Regional Development
Heather Ritts, Mailroom Supervisor
Samantha Calkins, Mail Center Clerk

## Business Affairs

Vacant, Vice President for Business Affairs
Kathy L. Moonan, Director of Business Affairs
Steven E. Williams, Senior Accountant
Sofia P. Bednez, Director of Human Resources
Shawn M. Llewellyn, Purchasing Coordinator
Anne McDonald, Accounting Specialist
Tammy R. Luciano, Administrative Assistant for Business Affairs
Jenna D. Swanson, Payroll Specialist
Taylor C. Tarahteeff, HR Specialist
Joel Meyer, General Manager of Dining Services
Ben Dansberger, Executive Chef
Angela Carroll, Catering Manager, Dining Services
MaryJo Miller, Retail Manager, Dining Services

## Campus Police and Safety

Richard L. Harsen, Lieutenant - Director of Campus Police and Safety
Amber T. Black, Sergeant - Campus Police Officer
John Cradduck, Campus Police Officer
Danelle Deasy - Campus Police Officer
Teodoro Popolizio, Campus Police Officer
Andrew Szafran, Campus Police Officer
Jennifer Jordan, Switchboard Operator and Administrative Assistant

## Center for Rural Health Practice

Vacant, Director of Center for Rural Health Practice

## Communications and Marketing

Pat Frantz Cercone, Executive Director of Communications and Marketing
Kimberly Marcott Weinberg, Assistant Director of Communications and Marketing
Jim Pascarella Jr., Web Manager
Alyson Thompson, Web Programmer
Rachel E. Close, Social Media Strategist
Laurie K. Dufford, Administrative Assistant

# Computing, Telecommunications, and Media Services 

William E. Kline, Director of Desktop/User Services
Robert J. Ellison, Systems Architect
Gregory W. Miller, Network and Media Systems Analyst
Steven D. Ellison, Systems Analyst
Alan M. Hancock, Technical Analyst II
Megan A. Uscinski, Technical Analyst II
Jaime Sweet-Taylor, Coordinator of User Services

## Enrollment Management

James L. Baldwin, Vice President for Enrollment Management
Diane L. Null, Data Coordinator

## Facilities Management

Jack Rae, Director of Facilities Management
Jacqueline M. Bosworth, Administrative Assistant
John W. McGriff, Maintenance Worker III
Jonathan M. Prosser, Maintenance Worker III
Thomas J. Ruttan, Maintenance Worker III
David A. Dixon, Maintenance Worker III
Vacant, Maintenance Worker III
Eric Barton, Maintenance Worker III
Matthew Foerstner, Maintenance Worker II
Kevin D. Niver, Maintenance Worker II
William Soto, Maintenance Worker II
Jeffrey S. Valerius, Maintenance Worker II

## Financial Aid

Melissa J. Ibañez, Associate Vice President for Enrollment Management and Director of Financial Aid
Deborah A. Woodley, Assistant Director of Financial Aid
Vacant, Financial Aid Counselor
Rachelle L. Heffner, Financial Aid Counselor
Jill Schultz, Administrative Assistant
Hanley Library

Kimberly M. Bailey, Reference/Instruction Librarian
Catherine A. Baldwin, Instruction Services Librarian
Jenelle Johnson, Liaison Librarian for Equity, Diversity, and Inclusion and Education Outreach
Mary Kafferlin, Library Specialist, Serials and Cataloging
Katherine Nussbaum, Service Desk Supervisor

## Philanthropy and Alumni Engagement

Christy Ruffner, Executive Director of Philanthropy and Strategic Partnerships
Christine L. Tyler, Director of Development and Major Gifts
Joelle A. Warner, Director of Donor Relations and Stewardship
Jenifer Spencer, Database Specialist
Jennifer L. Cornelius, Administrative Assistant
Vacant, Director of Alumni Engagement

## Registrar and Enrollment Services

Christina A. Marrone, Registrar and Director of Enrollment Services
Karen J. Branch, Enrollment Services Assistant
Karen L. Strotman, Enrollment Services Assistant
Beth Race, PT Enrollment Services Assistant

## Student Affairs

Michael Davila, Vice President and Dean of Student Affairs
Angela C. Wolfe, Associate Dean of Student Affairs and Experiential Education
Amy Bilezikian, Director of Student Engagement \& Assessment
Shannon M. Ridenour, Office Manager for the Office of Student Engagement
Kara Kennedy, Director of Student Care and Conduct
Vacant, Coordinator, Disability Resources and Services (DRS)
Warren Shaw, Career Educator
Chad Hockaday, Office Manager for the V.P. and Dean of Student Affairs
Sarah Martin, Associate Dean of Student Affairs and Director of Residence Life and Housing
Jessica Borgert, Resident Director
Joseph Fitz, Resident Director
Garrett T. Martin, Resident Director
Denise D. Perkins, Administrative Assistant, Residential Life and
Housing
Rodney Valandra, Director of Counseling Services
Erin Strotman, Clinician, Counseling Services
Jaime Lorenzo, Director of Student Health Services
Kathryn D. Kloss, Administrative Assistant, Student Health and Counseling Services

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## University of Pittsburgh Board of Trustees

The Board of Trustees is responsible for advancing the purposes of the University; promoting and protecting its independence, academic freedom, and integrity; and enhancing and preserving its assets for the benefit of future students and society at large. In addition, because the University of Pittsburgh is a state-related institution, the trustees ensure that Pitt meets its obligations both to the Commonwealth of Pennsylvania and to society generally.

General administrative, academic, and management authority is delegated to the chancellor. However, the board retains ultimate responsibility for all University affairs.

There are three or more regular meetings of the Board of Trustees each year, including an annual meeting. Special meetings also may be called. Much of the board's work is carried out by committees; many of these committees include faculty, staff, and students as non-voting representatives.

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Source: Office of the Secretary, June 28, 2023


## Centers, Institutes, Laboratories, and Clinics

## University Centers and Institutes ${ }^{1}$

Learning Research and Development Center
University Center for Social and Urban Research
University Center for International Studies
University of Pittsburgh Cancer Institute

## Centers, Institutes, Laboratories, and Clinics by School

## Dietrich School of Arts and Sciences

Academic Resource Center<br>Allegheny Observatory<br>Behavioral Physiology Laboratory<br>Center for American Politics and Society<br>Center for Combinatorial Chemistry<br>Center for Experimental Game Theory<br>Center for Industry Studies<br>Center for Parallel, Distributed, and Intelligent Systems<br>Clinical Psychology Center<br>Economic Policy Institute<br>Economics Computer Laboratory<br>English Language Institute<br>Robert Henderson Language Media Center<br>Humanities Center<br>Institute for Statistics and Applications<br>Less Commonly Taught Languages Center<br>Math Assistance Center<br>Pittsburgh Bacteriophage Institute<br>Pymatuning Laboratory of Ecology<br>Robert Henderson Language Media Center<br>Surface Science Center<br>Western Pennsylvania Writing Project<br>World History Center

## College of General Studies

McCarl Center for Nontraditional Student Success
Osher Lifelong Learning Center

## Graduate School of Public and International Affairs

Center for Disaster Management<br>Innovation Clinic<br>Johnson Institute for Responsible Leadership Non-Profit Clinic

Also, see" Jointly-Administered Centers."

## Katz Graduate School of Business

Artificial Intelligence Management Laboratory
Center for Economic Education
Center for Executive Education
Center for Health and Care Work
David Berg Center for Ethics and Leadership
Institution for Entrepreneurial Excellence, which includes:
Agricultural Entrepreneurial
Entrepreneurial Fellows Center
The Family Enterprise Center
PantherlabWorks
Small Business Development Center,

## Also, see" Jointly-Administered Centers."

## School of Education

Center for Urban Education
Institute for Higher Education Management
Institute for International Studies in Education
Motor Behavior Laboratory
Office of Child Development
Physical Activity and Weight Management Research Center
Pittsburgh Learning Policy Center
Reading Center

## Swanson School of Engineering

Basic Metals Processing Research Institute
Center for Bioengineering
Center for Complex Engineered Multifunctional Materials
Center for Energy
Center for Medical Innovation
Center for National Preparedness
Center for Sustainable Transportation

## School of Law

Civil Practice Law Clinic
Environmental Law Clinic
Family Law Clinic
Immigration Law Clinic
Innovation Practice Institute
Low Income Taxpayer Clinic
Securities Arbitration Clinic
Also, see" Jointly-Administered Centers."

## Graduate School of Public and International Affairs

Center for Disaster Management
Center for Metropolitan Studies
Graduate School of Public and International Affairs Nonprofit Clinic
Innovation Clinic
Johnson Institute for Responsible Leadership
Also, see" Jointly-Administered Centers."

## Social Work

Center on Race and Social Problems

## School of Information Sciences

Decision Systems Laboratory
Geoinformatics Laboratory
Institute for Information Ethics and Policy
Laboratory of Education and Research on Security Assured Information Systems (LERSAIS)
Teaching and Learning Research Lab
Sara Fine Institute for Interpersonal Behavior and Technology
Teaching and Learning Research Lab
U/Lab
Visual Information Systems Center (VISC)
Also, see" Jointly-Administered Centers."

## Centers, Institutes, Laboratories, and Clinics by School: Health Sciences

## School of Dental Medicine

Center for Craniofacial and Dental Genetics
Center for Craniofacial Regeneration
Center for Dental Health Research in Appalachia
Center for Dental Informatics
Center for Patients with Special Needs
Dental Registry and DNA Repository
Multidisciplinary Implant Center
Also, see" Jointly-Administered Centers."

## School of Nursing

Center for Research and Evaluation
Center for Research in Chronic Disorders
Also, see" Jointly-Administered Centers."

## School of Pharmacy

Center for Education and Drug Abuse Research
Center for Pharmacogenetics
Computation Chemical Genomics Center
Pharmacodynamic Research Center
Pharmacoinformatics and Outcomes Research
Also, see" Jointly-Administered Centers."

## School of Public Health

Center for Aging and Population Health
Center for Free Radical and Antioxidant Biochemistry
Center for Healthy Aging
Center for Healthy Environments and Community
Center for Global Health
Center for Maternal and Child Health Leadership in Public
Health Social Work
Center for Minority Health
Center for Occupational Biostatistics and Epidemiology
Center for Public Health Practice
Center for Public Health Preparedness
Center for Research on Health and Sexual Orientation
Center for Rural Health Practice
Clinical Oncology Program Biostatistical Center
Epidemiology Data Center
Models of Infectious Disease Agent Study National Center of Excellence
Patient Education Reference Center
Pennsylvania and Ohio Public Health Training Center
Pennsylvania Medicaid Policy Center
Pennsylvania/Mid-Atlantic AIDS Education and Training Center
Pennsylvania Prevention Project
Public Health Dynamics Laboratory
Also, see" Jointly-Administered Centers."
School of Medicine

Alzheimer Disease Research Center
Asthma, Allergy, and Airway Research Center
Asthma Institute
Brain Trauma Research Center
Center for ALS Research
Center for Advanced Brain Magnetic Imaging
Center for Biologic Imaging
Center for Detection, Diagnosis, and Intervention in Dementia
Center for Endovascular and Exovascular Therapy
Center for Modeling Pulmonary Immunity
Center for Primary Care Community-Based Research
Center for Research in Reproductive Physiology
Center for Research on Emergency Medical Services
Center of Excellence in Autism Research
Cranial Nerve Disorders Program
Cystic Fibrosis Research Center
Duchenne Muscular Dystrophy Research Center
Emergency Response Human Performance Laboratory
General Infectious Diseases Clinical Program
Hartford Foundation Center for Excellence in Geriatric Medicine
HIV/AIDS Clinical Research Program
Lung Translational Genomics Center
Neurosurgical Oncology Center
Neurosurgical Spine Services Division
Obesity/Nutrition Research Center
Ophthalmology and Visual Sciences Research Center
Otolaryngology Research Center
Pittsburgh Center for Pain Research
Pittsburgh Institute for Neurodegenerative Diseases
Safar Center for Resuscitation
Translational Neuroscience Program
Udall Center for Parkinson's Research
Vascular Medicine Institute
Also, see" Jointly-Administered Centers."

## School of Health and Rehabilitation Sciences

Center for Assistive and Rehabilitative Technology- Hiram G. Andrews Center
Cognitive Skills Enhancement Program-Hiram G. Andrews Center
Engineering Research Center-Quality of Life Technology
Neuromuscular Research Laboratory
Rehabilitation Engineering Research Center on Spinal Card Injury
Rehabilitation Engineering Research Center in Telerehabilitation
Rehabilitation Engineering Research Center on Wheelchair Transportation Safety
Wheeled Mobility Research Center
Also, see" Jointly-Administered Centers."

## Centers, Institutes, Laboratories, and Clinics: Other Academic Units and the Regional Campuses

## Office of the Provost

## Student Affairs

Student Health Service
University Counseling Center

## University Center for International Studies

African Studies Program
Asian Studies Center
Center for Latin American Studies
Center for Performing Arts of India
Center for Russian and East European Studies
European Studies Center
European Union Center of Excellence
Global Studies Center
Also, see" Jointly-Administered Centers."

## University Library System

Center for American Music
Johnstown Campus
John P. and Joyce Murtha Center for Continuing Education and Professional Development

## Greensburg Campus

The Westmoreland Heritage

## Titusville Campus

George J. Barco Center for Continuing Education

## Bradford Campus

Allegheny Institute of Natural History
Business Resource Center
Center for Rural Health Practice
Energy Institute
Bradford Regional Medical Center (Radiological Science)
Centers, Institutes, Laboratories, and Clinics: Jointly-Administered Centers

## Graduate School of Public and International Affairs/Joseph M. Katz Graduate School of Business

# Graduate School of Public and International Affairs/University Center for International Studies 

Global Studies Program
Matthew B. Ridgway Center for International Security Studies, which includes the Ford Institute for Human Security

## Health Sciences

Center for Clinical Pharmacology
Center for Continuing Education in the Health Sciences
Center for Environmental Oncology
Center for Injury Research and Control
Division of Laboratory Animal Resources
Facial Nerve Center
Genomics and Proteomics Core Laboratories
Head and Neck Cancer Specialized Program of Research Excellence
Institute for Clinical Research Education
Lung Cancer Specialized Program of Research Excellence
Oral Cancer Center
Pittsburgh AIDS Center for Treatment
Systems Neuroscience Institute

## Health Sciences/Bioengineering

Human Movement and Balance Laboratories
Magnetic Resonance Research Center
Medical Virtual Reality Center
Musculoskeletal Research Center
Pepper Center

# Health Sciences/Children's Hospital of Pittsburgh/Magee Womans Hospital and Research Institute 

Pittsburgh Cytogenetics Laboratory
Disabilities Resource Center

## Health Sciences/UPMC Health System

Center for Assistive Technology
Center for Biosecurity
Center for Environmental Oncology
Center for Sports Medicine
Center for Vaccine Research
Clinical and Translational Science Institute
Neuromuscular Research Laboratory
Peter M. Winter Institute of Simulation Education and Research (WISER)
Swallowing Disorders Center

# Joseph M. Katz Graduate School of Business/University Center for International Studies 

# Dietrich School of Arts and Sciences of Arts and Sciences/Swanson School of Engineering 

Center for Molecular and Materials Simulations
Center for Simulation and Modeling
Petersen Institute of NanoScience and Engineering

## Dietrich School of Arts and Sciences of Arts and Sciences/Health Sciences ${ }^{2}$

Drug Discovery Institute

## Dietrich School of Arts and Sciences of Arts and Sciences/Health Sciences ${ }^{2} /$ School of Law

## Dietrich School of Arts and Sciences of Arts and Sciences/School of Medicine

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Center for Neuroanatomy with Neurotropic Viruses
Center for Neuroscience
Conte Center for the Neuroscience of Mental Disorders
Pittsburgh Institute for Neurodegenerative Diseases
University Community Leaders and Individuals with Disabilities Center
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School of Health and Rehabilitation Sciences/Swanson School of
Engineering/VA Pittsburgh Health Care System/UPMC Health System

Human Engineering Research Laboratories
University of Pittsburgh Model Center on Spinal Card Injury
School of Information Sciences/Graduate School of Public Health/School of Medicine

Center for National Preparedness

## School of Law/University Center for International Studies

# School of Medicine/Children's Hospital of Pittsburgh/Magee-Womens Hospital and Research Institute 

Fetal Diagnosis and Treatment Center
Pittsburgh Diabetes Institute

## School of Medicine/Magee-Womens Hospital and Research Institute

Pregnancy and Diabetes Center
Center for Family Planning Research
Center for Fertility and Reproductive Endocrinology
Center for Research in Continence and Pelvic Floor Disorders
Ovarian Cancer Center of Excellence
Pittsburgh Development Center

## School of Medicine/UPMC Health System

Affect Regulation and Adolescent Brain Center<br>Audiology Center<br>Benedum Geriatric Center<br>Brachial Plexus and Peripheral Nerve Injury Center and Clinic<br>Brain and Spine Injury Center<br>Charles T. Campbell Ophthalmic Microbiology Laboratory<br>Cardiovascular Institute<br>Center for Clinical Neurophysiology<br>Center for Diabetes and Endocrinology<br>Center for Emergency Medicine of Western Pennsylvania<br>Center for Balance Disorder<br>Center for Hemochromatosis and Iron Overload Disorders<br>Center for Image-Guided Neurosurgery<br>Center for Integrative Medicine<br>Center for Intestinal Health And Nutrition Support<br>Center for Liver Diseases<br>Center for Overcoming Problem Eating<br>Center for Women's Digestive Health<br>Comprehensive Epilepsy Center<br>Comprehensive Lung Center<br>Comprehensive Pain Center<br>Cosmetic Surgery and Skin Health Center<br>Cutaneous Oncology Center<br>Digestive Disorders Clinic<br>Emphysema Resource Center<br>Eye Center<br>Gastrointestinal Cancer Prevention and Treatment Center<br>Heart, Lung and Esophageal Surgery Institute<br>Hillman Cancer Center<br>Inflammatory Bowel Disease Center<br>Institute of Aging<br>Institute for Doctor-Patient Communication<br>Institute to Enhance Palliative Care

# School of Medicine/VA Pittsburgh Health Care System 

# University of Pittsburgh/Carnegie Mellon University 

Brain Imaging Research Center
Center for the Neural Basis of Cognition
Real-time Outbreak and Disease Surveillance Laboratory
Pittsburgh Center for Social History
Pittsburgh Mind/Body Center
Pittsburgh NMR Center for Biomedical Research

# University of Pittsburgh/Carnegie Mellon University/Duquesne University/UPMC Health System/Windber Research Institute 

## University of Pittsburgh/Carnegie Mellon University/Westinghouse Electric Corporation

Pittsburgh Supercomputing Center
University-wide

Institute of Politics
${ }^{1}$ Centers and institutes in the category "University Centers and Institutes" are distinguished by organizational permanence, programmatic autonomy, and an annual operating budget fiscally independent of any other academic, research, and/or service unit.
${ }^{2}$ Centers and institutes listed are jointly-administered by two or more schools of the Health Sciences, which includes: Graduate School of Public Health, School of Dental Medicine, School of Health and Rehabilitation Sciences, School of Nursing, School of Pharmacy, and School of Medicine.

Note: The centers, institutes, laboratories, and clinics listed are University of Pittsburgh or University affiliated organizations. They are either single or multidisciplinary in scope, and are generally involved in some combination of education, research or service activities. Each center, institute, laboratory, and clinic is listed under the name of the unit with which it is associated.

The Office of Management Information and Analysis modifies this listing throughout the year.

## Locations

| Additional Location <br> Allegheny Intermediate Unit <br> 475 East Waterfront Drive <br> Homestead, PA 15120 <br> Opened: 08/03/2010 | Other Instructional Site <br> Bellefield Professional Building 130 North Bellefield Avenue Pittsburgh, PA 15213 |
| :---: | :---: |
| Additional Location Beaver Valley Intermediate Unit 147 Popular Drive Monaca, PA 15061 | Other Instructional Site <br> Bridgeside Point I <br> 100 Technology Drive, Suite 210 <br> Pittsburgh, PA 15219 |
| Additional Location <br> Butler County Community College 107 College Drive <br> Butler, PA 16002 <br> Opened: 08/03/2010 | Other Instructional Site <br> Bridgestone Point II 450 Technology Drive Pittsburgh, PA 15219 |
| Additional Location <br> Dick's Sporting Good <br> 345 Court Street <br> Pittsburgh, PA 15108 <br> Opened: 10/30/2017 | Other Instructional Site <br> Butler County Community College <br> 107 College Dr. <br> Butler, PA 16002 |
| Additional Location <br> EMBA Worldwide Sao Paulo, Brazil <br> Avenida das Nações Unidas $12.5514^{\circ}$ andar - salas 1 e 2 Sao Paulo, 04578-903 Brazil <br> Opened: 11/01/2016 | Other Instructional Site <br> Center for Strategic and International Studies 1616 Rhode Island Avenue Washington, DC 20036 |
| Additional Location <br> Intermediate Unit I (Sch. of Educ.) <br> Data not provided <br> Coal Center, PA 00000 | Other Instructional Site Eye \& Ear Institute 203 Lothrop Street Pittsburgh, PA 15213 |
| Additional Location <br> St. Mary's (Univ of Pgh - Bradford) <br> Data not provided <br> St. Mary's, PA 00000 | Other Instructional Site <br> K-Z Guest Ranch <br> P.O. Box 2167 <br> Cody, WY 82414 |
| Additional Location <br> U-P at Bradford (c/o Sch of Soc Wk) <br> Data not provided <br> Bradford, PA 00000 | Other Instructional Site Kaufmann Building 3471 Fifth Ave. Pittsburgh, PA 15213 |
| Additional Location <br> U-P at Johnstown, (c/o Sch of Soc Wk) <br> Data not provided <br> Johnstown, PA 00000 | Other Instructional Site Longhorn Lodge 362 N. 4th Street River Rock, WY 82083 |
| Additional Location U-P at Titusville, c/o U-P at Bradford <br> 504 E. Main Street <br> Titusville, PA 16354 | Other Instructional Site <br> Magee Women's Research Institute 204 Craft Ave. <br> Pittsburgh, PA 15213 |


| Additional Location <br> University of Pittsburgh at Bradford Data not provided 300 Campus Drive Bradford, PA 00000 OPEID: 00337903 | Other Instructional Site <br> McKee Place <br> 230 McKee Place Suite 500 <br> Pittsburgh, PA 15213 |
| :---: | :---: |
| Additional Location <br> University of Pittsburgh at Greensburg <br> 1150 Mt. Pleasant Rd <br> Greensburg, PA 00000 <br> OPEID: 00337904 | Other Instructional Site <br> Neuromuscular Research Laboratory <br> 3860 Water Street <br> Pittsburgh, PA 15203 |
| Additional Location <br> University of Pittsburgh at Johnstown <br> Data not provided 450 Schoolhouse Road Johnstown, PA 00000 <br> OPEID: 00337902 | Other Instructional Site <br> Parkvale Building <br> 200 Meyran Avenue <br> Pittsburgh, PA 15213 |
| Additional Location <br> University of Pittsburgh at Titusville <br> Data not provided 504 E. Main St. <br> Titusville, PA 00000 <br> OPEID: 00337901 | Other Instructional Site Pymatuning Laboratory of Ecology 13142 Hartstown Road Linesville, PA 16424 |
| Other Instructional Site <br> Bakery Square <br> 6425 Penn Avenue 4th. Floor Pittsburgh, PA 15206 | Other Instructional Site <br> Regional Learning Alliance Conference Center <br> 850 Cranberry Woods Drive <br> Cranberry, PA 16066 |
| Other Instructional Site <br> State Correctional Institution at Fayette <br> 50 Overlook Drive <br> LaBelle, PA 15450 | Other Instructional Site <br> State Correctional Institution at Greene <br> 169 Progress Drive <br> Waynesburg, PA 15370 |
| Other Instructional Site <br> State Correctional Institution at Somerset 1590 Walters Mill Road <br> Somerset, PA 15510 | Other Instructional Site <br> University of Pittsburgh Applied Research Center (UPARC) <br> 3010 William Pitt Way Building A-7, Rm. 216 <br> Pittsburgh, PA 15238 |
| Other Instructional Site <br> University of Pittsburgh-Washington DC Office <br> 2025 M Street, NW <br> Washington, DC 20036 |  |

## Admissions

## First-Year Student Admissions

Prospective students who have not earned college credits since graduating from high school with a diploma or GED should consult this section for information on admission.

Admissions Contact Information
University of Pittsburgh at Bradford
Office of Admissions
Hanley Library Building
300 Campus Drive
Bradford, PA 16701
800-872-1787 or 814-362-7693
admissions@upb.pitt.edu
www.upb.pitt.edu

## High School Preparation

First-Year Student applicants to the University of Pittsburgh at Bradford should have completed a minimum of 15 units of credit in college preparatory courses. Flexibility exists within this requirement.

First-Year students applying to the Associate Degree in Nursing program will be admitted directly with a minimum cumulative high school grade point average of 2.75 and a minimum SAT score (or ACT equivalent score) of 1025 .

First-Year students applying to the Bachelor of Science degree in radiological science program will be admitted with a minimum cumulative high school grade point average of 2.50 and a minimum SAT score (or ACT equivalent score) of 960 . Students transferring from another college or university must have completed a minimum of 12 college-level credits with a minimum cumulative grade point average of 2.50 . Students failing to meet these criteria may be admitted to a preparatory program.

## Application Procedures

First Year Students seeking admission to the University of Pittsburgh at Bradford must complete the free online application and submit high school documentation. For students not applying for admission to the AS in Nursing, BS in Nursing or Radiological Science programs, the SAT and/or ACT test scores are not required and are optional for the student to submit. SAT and/or ACT scores will not negatively affect admission consideration.

## Application Deadlines

The University of Pittsburgh at Bradford practices a rolling admissions policy, meaning there is not a specific deadline by which prospective students must apply. Applicants are reviewed and informed of admission decisions on a first-come, first-served basis.

Note: International students must apply by:
June 1: for fall term admission
October 1: for spring term admission
Note: We do not admit International Students for summer term.
International application requirements can be found online.

## Enrollment Fee/Tuition Deposit

Once accepted, students must reserve their positions in the upcoming class by submitting a nontransferable, nonrefundable $\$ 225$ enrollment fee. The priority commitment date is May 1 for the fall term.

## Transfer Student Admissions

Prospective students who are high school graduates or GED holders and have attended postsecondary institutions, colleges, or universities (except those who took college classes while in high school / dual-enrollment and are considered first-year students with advanced standing) apply for admission as transfer students using the free online application

Students transferring from another college or university must have completed a minimum of 12 college-level credits with a minimum cumulative grade point average of 2.0 . Students failing to meet these criteria may be admitted on a provisional basis after further review of additional information such as extenuating circumstances, high school performance and/or SAT/ACT scores.

AS in Nursing, BS in Nursing and Radiological Science Students transferring from another college or university must have completed a minimum of 12 college-level credits with a minimum cumulative grade point average of 2.75 . Students failing to meet these criteria may be admitted to a preparatory program.

## Transfer Application Procedures

Transfer students who wish to be considered for admission to the University of Pittsburgh at Bradford must complete the free online application, submit an official high school transcript or GED, and an official transcript from each postsecondary institution attended (whether or not it is intended that all courses will be counted toward a degree at the University of Pittsburgh at Bradford).

NOTE: International transfer students must apply by:
June 1: for fall term admission
October 1: for spring term admission
Note: We do not admit International Students for summer term.
International application requirements can be found online.

## Evaluation of Transfer Credits

Credits earned at another accredited institution are evaluated by the Pitt-Bradford Registrar, which determines the number of advanced standing credits the transfer student will be awarded and the distribution of these credits in relation to the school's degree requirements and University policy. For transfer equivalency details see our online information.

## Readmission

Students who previously attended the University of Pittsburgh then attended other institutions and wish to return to the University are considered transfer students and must reapply following the guidelines for transfer students.

Former University of Pittsburgh at Bradford students who have not attended another institution and have not attended Pitt-Bradford for three consecutive semesters and left in good academic standing may be readmitted after submitting a Readmission form available via the Office of Admissions. Please contact the Office of Admissions at admissions@upb.pitt.edu.

## Freshman Guarantees For Pitt Graduate/Professional Schools Through Pitt's Regional Campuses

- Business Administration
- Communication Science (Speech Pathology/Audiology)
- Dental Medicine
- Education
- Engineering
- Health Informatics
- Information Sciences
- Law
- Medicine
- Nursing
- Occupational Therapy
- Pharmacy
- Physician Assistant
- Physical Therapy
- Freshman and Sophomore: Public Health
- Public and International Affairs
- Rehabilitation Technology
- Sports Medicine
- Sports Science
- Social Work

The University of Pittsburgh is a member of the Association of American Universities, which includes the top 62 research institutions in North America. It is also one of the top recipients of National Institutes of Health research dollars and is affiliated with the internationally renowned University of Pittsburgh Medical Center (UPMC). For outstanding freshman applicants, the University offers a limited number of freshman guarantees to some of its most competitive graduate and professional programs.

During your undergraduate career at one of Pitt's regional campuses, as you complete the academic course work related to your guarantee program, there also will be plenty of out-of-the-classroom learning opportunities available to you that will allow you to complement your course work with experiential learning in the form of volunteer work, internships, and/or undergraduate research. The cities where our regional campuses are located offer many such opportunities. You are encouraged to take full advantage of them as you plan your undergraduate career.

To be considered for a graduate/professional school guarantee, as a prospective freshman you must apply to one of our regional campuses at Bradford, Greensburg, Johnstown, or Titusville and indicate the pre-professional field of study on your admissions application unless otherwise noted, below. Note that these are guidelines for guarantee consideration, as competition may vary from year to year. Application early in the senior year of high school is recommended. See this site for more details: https://admissions.pitt.edu/guaranteed-admissions-programs

## Master of Business Administration (MBA) and Master of Science in Accounting Guarantees Katz Graduate School of Business

- Apply for freshman admission to a regional campus as a business major.
- Be in top $10 \%$ of high school graduating class and score 1410 or higher on SAT (combined Critical Reading and Math) or 30 ACT.
- Students who do not attend high schools that rank but who have an "A" average in high school, and who score 1410 or higher on the SAT, will be considered.
- Earn a business degree as a full-time undergraduate student at a University of Pittsburgh regional campus.
- Earn a cumulative GPA at the University of Pittsburgh of at least 3.50.
- For enrollment in the MBA program, you must achieve a score of 640 on the Graduate Management Admissions Test (GMAT) within three years prior to enrollment, have a minimum of two years of relevant work experience, and participate in a successful interview by the MBA admissions team. Students must apply to the full-time or part-time MBA program after graduation from a regional campus.
- The GMAT is waived for the MS in accounting program. Students must apply to the MS in accounting program during their senior year in business at a regional campus or after graduation from business.
- The offer of guaranteed admission for the MBA or MS in accounting program remains in effect for five years after graduation from a business major at a regional campus.
- For information about the Katz Graduate School of Business, go to www.katz.pitt.edu


# Communication Science Disorders (speech pathology/audiology) Grantee School of Health and Rehabilitation Sciences 

- Indicate Pre-Communication Science on admissions application.
- Achieve a minimum SAT score of 1410 or 30 ACT.
- Complete the Bachelor of Arts degree at a regional campus with an overall grade point average (GPA) of 3.6 or higher, as well as a GPA of 3.75 or higher in the core pre-requisite courses for communication science disorders.
- Achieve minimum scores at the 50th percentile on the verbal and quantitative sections and a score of 3.5 or better on the analytical writing section of the Graduate Record Examination (GRE).
- Complete the CSD Centralized Application Service (CSDCAS) process as required.
- For information about the CSD graduate program, go to www.shrs.pitt.edu/macsd.


## School of Dental Medicine Guarantee

- Rank in the top 10 percent of high school class with 1470 SAT (combined Critical Reading and Math) or 32 ACT Composite score, or better.
- Maintain an overall GPA of 3.75 with a Biology, Chemistry, Physics and Mathematics (BCPM) GPA of 3.65 as an undergraduate.
- Complete the undergraduate degree within four years.
- Continue to gain dental related experiences during their undergraduate years.
- Seek research opportunities in a related field.
- Seek opportunities for community service.
- Successfully complete the prerequisite courses for admission to the University of Pittsburgh School of Dental Medicine.
- Provide the Dental Office of Admissions with a CV \& official transcript at the completion of the junior year, meeting all deadlines established for students.
- Meet with the Admissions Committee at the end of the junior year to confirm that all expectations have been met including: satisfactory academic achievement, general foundational science knowledge base, understanding of the field of dentistry, \& demonstration of communication skills.
- More information about the School of Dental Medicine.
- International students are not eligible for this guarantee.


## School of Education Guarantee for Admission into the Master of Education (M.Ed.) or the Master of Teaching (MAT) Programs

- Earn a 3.5 grade point average in high school and a minimum 1310 SAT (combined Critical Reading and Math) or 28 ACT.
- Maintain a 3.25 grade point average as a full-time undergraduate student at a regional campus (individual instances where a student's grade point average falls below 3.25 will be reviewed by the Dean of the School of Education).
- Attend a School of Education Information Session.
- Declare the specific teacher education program by the end of the junior year.
- Complete all prerequisite courses for the teacher education specialty area.
- Candidates in foreign language must also attain a rating of at least Advanced Low on the OPI examination administered by ACTFL.
- Show evidence of substantial experience working or volunteering with children or adolescents as a teacher, tutor, camp counselor, etc.
- For information about the Graduate School of Education, contact: Wesley Vaina, Director of Admissions and Enrollment for the School of Education.


## Swanson School of Engineering Graduate Program Guarantee

- Achieve a minimum SAT score of 1510 (combined Critical Reading and Math) or 33 ACT Composite score.
- Be in the top 5 percent of your high school graduating class or have an equivalent grade point average (GPA)
- Complete an undergraduate degree in the Swanson School of Engineering at the University of Pittsburgh with a cumulative GPA of 3.5 or better.
- Review graduate engineering programs
- https://www.engineering.pitt.edu/


## Health Informatics Guarantee School of Health and Rehabilitation Sciences

- Complete an undergraduate degree at Pitt with an overall QPA of 3.0 or higher.
- Completion of prerequisite courses with a minimum grade of C.
- Students offered the guarantee will be given the options of pursuing either the MS-HIS or MS-HIS RHIA Options.
- For information about the Health Informatics graduate program go to www.shrs.pitt.edu/mshis.


## Master of Science in Information Science Guarantee

- Only first-year students can be considered for the guarantee.
- Achieve a minimum SAT score of 700 (Math) or a minimum score of 30 on the Math section of the ACT.
- Indicate an intended field of study of Information Systems or Information Technology on your undergraduate application to a Pitt regional campus and select "Information Sciences" from the Guaranteed Admission Program drop-down box on the application.
- Complete relocation to the Pittsburgh campus School of Computing and Information after accruing at least 24 credits at a regional campus in the required pre-requisite courses (as defined on the school's website) with a 3.00 cumulative GPA or greater.
- Complete the Bachelor of Science in Information Science (BSIS) Program within the School of Computing and Information. Completion of the BSIS program and enrollment in the MSIS program must occur within five calendar years of this notification.
- Maintain a 3.25 QPA while in the BSIS program with no grade (throughout your college career) lower than a C.
- Review information on the School of Computing and Information website.


## School of Law Guarantee

- Indicate Pre-Law on admissions application.
- Be in top 10 percent of high school graduating class with a 1360 SAT or 29 ACT test result.
- While enrolled full-time at a regional campus, maintain a 3.5 grade point average.
- Complete an undergraduate degree at a regional campus.
- At point of application to law school, satisfy a standard character review and attain a 160 LSAT result.
- Note: For students not eligible for a freshman guarantee, working toward early admission to the School of Law after three years of study in arts and sciences or applying through our early decision program may be a desirable alternative.
- For information about the School of Law, go to www.law.pitt.edu.


## Occupational Therapy Guarantee - School of Health and Rehabilitation Sciences

- Indicate Pre-Occupational Therapy on admissions application.
- Complete an undergraduate degree at a regional campus with an overall grade point average (GPA) of 3.6 or higher; completion of the prerequisite courses with a minimum grade of B and prerequisite GPA of 3.6.
- Achieve minimum scores at the 50th percentile on the verbal and quantitative sections and a score of 3.5 or better on the analytical writing section of the GRE General Test.
- Complete the OT Centralized Application Service (OTCAS) process as required.
- For information about the OT program, go to www.shrs.pitt.edu/mot.


## Doctor of Pharmacy (PharmD) degree-School of Pharmacy

- Students selected for the GAP will have a reserved seat in the School of Pharmacy after their sophomore year (second pre-pharmacy year).
- To be selected for the PharmD Guaranteed Admissions Program, students should have an SAT score of 1330 or higher with a SAT Math score of 660 or higher, or a 29 ACT Composite score.
- A selected student should maintain a 3.25 GPA (in both science and math courses and overall) while satisfying the course work required during the two pre-pharmacy years.
- For more information on the PharmD program
- International students are not eligible for this guarantee.


## Physical Therapy Guarantee - School of Health and Rehabilitation Sciences

- Indicate Pre-Physical Therapy on admissions application.
- Rank in the top 10 percent of high school graduating class and achieve a 1410 SAT I (combined Critical Reading and Math) or 30 ACT score.
- Maintain a 3.5 or better science and overall grade point average (GPA) while enrolled in an undergraduate program at a regional campus.
- Complete all prerequisite coursework required for admission to the DPT program.
- Achieve minimum scores at the 50th percentile on the verbal and quantitative sections and a score of 3.5 or better on the analytical writing section of the Graduate Record Examination (GRE).
- Demonstrate evidence of adequate exposure to the field of physical therapy.
- Complete the PT Centralized Application Service (PTCAS) process as required.
- For information about Pitt Public Health, go to www.publichealth.pitt.edu.


## Physician Assistant Guarantee-School of Health and Rehabilitation Sciences

- Be in the top $10 \%$ of high school graduating class.
- Achieve a combined SAT Math \& Critical Reading (verbal) score of 1450 (32 ACT Composite score).
- Students offered the freshman guarantee must earn an overall GPA of 3.5 or higher and a science GPA of 3.5 or higher at Pitt; complete the prerequisite courses and requirements for the PA Program and meet with PA faculty member at least once a year providing proof of GPA and courses taken.
- Students offered the guarantee must complete their undergraduate degree at Pitt in four years.
- Up to 5 guarantees will be offered each year.
- More information about the Physician Assistant program.
- International students are not eligible for this guarantee.


## Graduate School of Public Health (Pitt Public Health) Guarantee

- Apply to a regional campus.
- Be in top 10 percent of high school graduating class with a 1360 SAT (combined Critical Reading and Math) or 29 ACT Composite score.
- Maintain a minimum 3.3 grade point average while satisfying the minimum course work requirements.
- Complete an undergraduate degree at a regional campus.
- Achieve minimum scores of 155 (70th percentile) on the Verbal section, 152 ( 60 th percentile) on the Quantitative section, and a score of 3.5 or better on the Analytical Writing section of the Graduate Record Examination (GRE).
- New for 2018: Graduate School of Public Health (Pitt Public Health) Sophomore Guarantee
- Enrolled, achieve, and maintain at least a 3.3 overall GPA while at the University of Pittsburgh-Bradford.
- Receive satisfactory scores on the Graduate Record Examination (GRE): for Pitt Public Health, GRE scores must be at least 155 (70th percentile) on the Verbal section, 152 (60th percentile) on the Quantitative section, and 3.5 on the Analytical Writing section.
- Complete an undergraduate degree at the University of Pittsburgh-Bradford.
- Complete the prerequisite courses listed at http://www.publichealth.pitt.edu/requirements.


## Graduate School of Public and International Affairs (GSPIA) Guarantee

- Apply to a regional campus.
- Be in top 10 percent of high school graduating class with a 1360 SAT (combined Critical Reading and Math) or 29 ACT result.
- Maintain a minimum 3.5 grade point average in arts and sciences while satisfying the minimum course work requirements.
- Achieve minimum scores of 154 each on verbal and quantitative sections and a scores of 4.0 or above on the analytical writing section of the Graduate Record Examination (GRE).
- Demonstrate a commitment to public service through internships, volunteer, and/or work experience in the fields of public and international affairs.
- Apply to the Master of Public Administration, Master of Public and International Affairs, or Master of International Development programs. The offer of guaranteed admission remains in effect for three years after graduation from one of the regional campuses with a bachelor's degree.
- For information about GSPIA, go to www.gspia.pitt.edu.


## School of Social Work Guarantee

- Apply to a regional campus.
- Indicate Pre-Social Work on the admissions application.
- Earn a 3.5 grade point average in high school with a 1270 SAT combined Critical Reading and Math) or 26 ACT result.
- Complete your undergraduate degree at a regional campus with a minimum of a 3.0 QPA
- Have completed no less than 30 credits in both liberal arts and social sciences and a 3-credit course in statistics.
- Complete the application to the Masters of Social Work program.
- International students are not eligible for this guarantee.
- For information about the School of Social Work, go to www.socialwork.pitt.edu.


## Re-admission: Returning Students

Matriculated students (not including continuing education, nondegree-seeking, or visiting students) who interrupt their enrollment for more than three consecutive terms or have attended another school, and who have not been suspended for academic reasons must reapply for admission through the Office of Admissions. Students who interrupt their enrollment for less than three consecutive terms may return and register for classes by contacting the Enrollment Services Office.

## Relocation (Internal transfer to another Pitt campus)

You may apply to relocate to the Pittsburgh campus (or any regional campus) during the term in which, upon completion, you will meet the minimum requirements outlined by that school. Please contact the school directly if you have questions regarding their minimum requirements. You may email Enrollment Services (upbacct@pitt.edu) to request the Relocation Form. The forms are being completed through DocuSign. Your application and file will be forwarded to the appropriate school in Pittsburgh (or at the regional campus to which you are applying). You will be contacted by the appropriate office at the campus to which you have applied concerning your acceptance. During this time, it is highly recommended that you also contact the housing office at the appropriate campus to which you are applying if you will be seeking housing. You should also contact the office of financial aid at the campus to which you are applying. Please note that Pitt-Bradford merit scholarships are not transferable to any other University of Pittsburgh campus.

## Student Right-to-Know Graduation Rate Disclosure

Statistical information concerning the graduation rate for the Bradford campus of the University of Pittsburgh, as required by the Student Right-toKnow and Campus Security Act, is available upon request from the Office of Admissions.

## Academic Procedures and Policies

## Patent Policy

A University student, during his/her period of enrollment, may be responsible for new discoveries and inventions that could have commercial value and contribute to scientific, technological, social, and cultural progress. Those accomplishments should be patented in the best interest of the student, the University, the public, and the government. The University's policy on patent rights and technology transfer determines the rights and obligations of the student and the University in any technology the student may invent while enrolled in the University. Details of this University policy are available from the Office of Technology Transfer and Intellectual Property, or online at https://www.policy.pitt.edu/sites/default/files/Policies/Research-Innovation/Policy_RI_10.pdf.

## Master's Degrees

Through special arrangements with other schools of the University of Pittsburgh, Pitt-Bradford offers classroom space and facilities for graduate students enrolled in the graduate programs listed below. Pitt-Bradford does not administer the programs, nor grant the degrees. Students interested in these programs must apply directly to the school that administers them.

## Master of Social Work (MSW)

The University of Pittsburgh School of Social Work offers the Master of Social Work program at the Pitt-Bradford campus. This program is geared toward working professionals, functioning with a part-time schedule at 6 credits a semester, for 10 consecutive semesters. All classes are provided at Pitt-Bradford, with a combination of traditional instruction and interactive television (ITV).

This program is accredited by the Council on Social Work Education, and meets state social work licensure requirements. For more information, please contact Stephanie Eckstrom, MSW program coordinator in Bradford at 814-362-7527; Sandra Wexler, MSW Program Director in Pittsburgh at 412-624-6329; or visit the Web at www.socialwork.pitt.edu.

## Baccalaureate (Bachelor's) Degrees

BS in Accounting<br>BS in Applied Mathematics<br>BS in Athletic Training<br>BS in Biology<br>BS in Biology Education 7-12<br>BS in Business Management<br>BS in Chemistry<br>BS in Chemistry Education 7-12<br>BS in Business, Computer and Information Technology (PreK-12)<br>BS in Computer Information Systems and Technology<br>BS in Early Level Education Pre K-4<br>BS in Energy Science and Technology<br>BS in Energy Engineering Technology<br>BS in English Education 7-12<br>BS in Environmental Education 7-12<br>BS in Environmental Science<br>BS in Exercise Science<br>BS in Forensic Science<br>BS in Health and Physical Education (PreK-12)<br>BS in Hospitality Management<br>BS in Mathematics Education 7-12<br>BS in Mechanical Engineering Technology

BSN in Nursing
BS in Physical Sciences
BS in Psychology
BS in Radiological Science
BS in Social Studies Education 7-12
BS in Sport and Recreation Management
BA in Broadcast Communications
BA in Communications
BA in Criminal Justice
BA in Economics
BA in English
BA in Environmental Studies
BA in History/Political Science
BA in Interdisciplinary Arts
BA in International Affairs
BA in Sociology
BA in Writing

## General Requirements for the Bachelor's Degree

The University's general requirements for the bachelor's degree include satisfactory completion of the following:

1. Minimum of 120 semester credits with at least 30 credits in upper-level courses; a maximum of 12 credits of directed research/study/undergraduate faculty assistant may be counted toward the 120 -credit requirement
2. The General Education Program
3. The major, which includes satisfying the requirements of the department(s) responsible for the major
4. A minor, if one is required by the department responsible for the major, with a minimum GPA of 2.00
5. A cumulative GPA of 2.00 in all University courses, and a cumulative GPA of 2.00 in the major(s)
6. The residence requirement (the final 30 semester credits and at least half of the credits in the major must be completed through Pitt)
7. No more than 12 credits with S grades may count toward the 120
8. All courses required for a major, minor, and General Education Program must be taken for letter grades with the exception of those courses designated as graded S or N only.
9. Settlement of all financial obligations to the University

## Minors

Accounting
Administration of Justice
Africana Studies
Anthropology
Application Software Development
Art
Athletic Coaching
Biology
Business
Chemistry
Cinema Studies
Communications
Comparative Literature
Counseling Psychology
Criminal Forensic Studies
Cybersecurity and Digital Forensics
Digital Graphic Design
Economics
Education, Non teaching
English
Environmental Science

Exercise Science
Finance
Gender, Sexuality and Women's Studies
Geology
History
Hospitality Management
Human Resource Management
International Business
International Affairs
Legal Studies
Management Information Systems
Marketing
Mathematics
Mathematics Modeling
Music
Philosophy
Physics
Political Science
Psychology
Recreation Administration
Sociology
Spanish
Speech Communication
Sport Management
Systems and Network Administration
Theater
Writing

## Professional Preparation

Course work preparing students for professional programs is available for the following fields:
Pre-Art Therapy
Pre-ASN
Pre-Athletic Training
Pre-BSN
Pre-Chiropractic
Pre-Communication Science and Disorders
Pre-Nutrition
Pre-Dentistry
Pre-Emergency Medicine
Pre-Engineering
Pre-Health Information Management
Pre-Law
Pre-Medicine
Pre-Music Therapy
Pre-Occupational Therapy
Pre-Optometry
Pre-Pharmacy
Pre-Physician's Assistant
Pre-Physical Therapy
Pre-Athletic Training
Pre-Art Therapy
Pre-Music Therapy
Pre-Communication Science and Disorders
Pre-Physician's Assistant

Credential programs (also offered as a double major) are offered in:
Elementary Education
Secondary Education

## Double Majors

Students may simultaneously complete requirements for two academic majors in accordance with the following regulations:

1. Both majors must be completed under the same set of degree requirements.
2. Students must complete all general education, core, and related area requirements for each major. A course used to satisfy a core requirement in one major might not be used to satisfy a core requirement in the other major.
3. General education requirements may be the same for both majors, with the exception of those specified by the major.
4. Courses required for either major may not be used for a minor.
5. If one of the majors leads to the BA degree and another to the BS degree, the student must decide between the two degree options at the time of graduation, since only one diploma is awarded.

## Dual Degrees

Students may elect to complete the requirements for two different bachelor's degrees (e.g., a BS and a BA). If a student wishes to earn two different bachelor's degrees, he or she must complete a minimum of 30 credits beyond the primary degree (a minimum of 150 credits), as well as satisfy all the requirements for the two majors. Students must maintain a 2.00 GPA in all courses.

## Associate Degrees

AS in Engineering Science
AS in Information Systems
AA in Liberal Studies
AS in Nursing
AS in Petroleum Technology *Currently not accepting new students.

## General Requirements for the Associate's Degree

The University's general requirements for the associate's degree include satisfactory completion of the following:

1. Minimum of 60 semester credits
2. The general education requirements designated in the specific program requirements
3. The major, which includes satisfying the requirements of the department(s) responsible for the major
4. A cumulative GPA of 2.00 in all University courses, and a cumulative GPA of 2.00 in the major
5. The residence requirement (the final 15 semester credits and at least half of the credits in the major must be completed at Pitt-Bradford; refer to the specific degree requirements in nursing for special restrictions)
6. All courses required for the major, minor, and General Education Program must be taken for letter grades with the exception of those courses designated as graded S or N only.
7. Settlement of all financial obligations to the University

## General Education Program

All students matriculating at Pitt-Bradford must satisfy the General Education Program requirements before they graduate. It is important that in addition to the depth and breadth of knowledge acquired in a student's major discipline of study, every student must have an appreciation and understanding of the many other fields of study that affect our understanding of the human experience. The college's General Education Program is designed to provide that appreciation and understanding, as well as the foundation skills essential for academic success and lifelong learning.

The following is an outline of Pitt-Bradford's General Education Program. Courses fulfilling requirements for the General Education Program will have, at the end of their course description, a GE designation (e.g., GE: Arts).

## Competencies

(A minimum grade of $C$ - is required in courses taken to satisfy competency requirements.)

## Written Literacy

| ENG 0101 | English Composition I | 3 credits |
| :--- | :--- | :--- |
| ENG 0102 | English Composition II | 3 credits |

## Mathematics <br> 3 credits

MATH 0098 College Algebra II or designated higher-level math course (GE: Mathematics).

## First Year Seminar

FS 0102 (prior to fall 2022) First Year Seminar 3 credits
FS 0104 (beginning fall 2022) First Year Transition Seminar
1 credit

Students enrolling in associate-degree, pre-engineering, or pre-pharmacy programs are exempt from this requirement. Students in the Mechanical Engineering Technology and Energy Engineering Technology B.S programs follow different General Education requirements. Please refer to those majors.

## The Human Experience

Note: The human experience curriculum must include at least one course designated as Non-Western. Students who matriculate and enroll beginning with the Fall of 2013 are required to complete two courses designated as "Global" part of the human experience curriculum. This replaces the previous Non-Western requirements.

## Arts and Letters

9 credits

Literature (GE: Literature)
Creative, Fine, and Performing Arts (GE: Arts)

Second Languages (GE: Language)
Must include at least one course in literature, and at least one course in the creative, fine, and performing arts.

# Courses must be selected from at least two different categories (the categories are behavioral science, economics, and political science). 

History, Culture, and Philosophical Inquiry
History (GE: History)
Cultures (GE: Cultures)
Philosophical Inquiry (GE: Philosophy)
At least one history course is required and at least one course from either of the other two categories (Culture or Philosophical Inquiry)
Physical, Life, and Computational Sciences
Physical Sciences (GE: Physical Sciences)
Life Sciences (GE: Life Sciences)
Laboratory
Computational Sciences (GE: Computational Sciences)
Must include one course each in physical sciences and life sciences, one of which must have a laboratory.

## Physical Education

## 1 credit

One course in Physical Education (GE: Physical Education).

## Course Placements

## English Composition

There are two courses in English composition: All students in Pitt-Bradford baccalaureate programs must pass ENG 0101 with a grade of C- or better before attempting ENG 0102 English Composition II. All baccalaureate degree students must pass ENG 0102 with a grade of C- or better in order to qualify for graduation.

## Mathematics

Entering students are placed in mathematics courses based on their high school performance and math SAT/ACT scores or transfer credit evaluation. Students who place into College Algebra I (MATH 0097) must pass it with a grade of C- or better before they register for a higher level math course. For students who place beyond beginning algebra, the specific math course placement is dependent on the student's academic major. Students who wish to appeal their math placement can enroll in the next higher math course or use the three-week policy to move to a lower math course if necessary. Students seeking to take a higher course for which they do not have the required prerequisite would need written permission from the Mathematics instructor in order to enroll.

# Enrollment and Changes in Enrollment of Courses 

## Full-Time and Part-Time Enrollment Status

Students registered for 12 or more credits are considered full-time; those registered for fewer than 12 credits are considered part-time. Eligibility for a scholarship or loan may be contingent on full-time registration status.

## Active and Inactive Enrollment Status

A student is active when admitted and enrolled in the term of admission. A student must register for at least one credit in a 12-month period in order to maintain active status. An inactive student who has not enrolled for three consecutive terms must request readmission to the University.

## Directed Research

Directed research opportunities that provide students with research experiences in their majors are available in many Pitt-Bradford baccalaureate degree programs. Approval of a directed research application is contingent upon satisfaction of the following requirements:

1. Directed Research topic must be related to the student's major
2. Students must meet good academic standing
3. Approval of the faculty supervisor, the student's academic advisor, the program director, the division chair, and the dean of academic affairs

## Internships

Internships that provide students with practical experience in their majors are available in many Pitt-Bradford baccalaureate degree programs. Students must apply to their academic advisor for internship placement. Approval of an internship application is contingent upon satisfaction of the following requirements:

1. Junior standing
2. Student must meet good academic standing
3. Approval of the faculty intern supervisor, the student's academic advisor, the division chair, and the dean of academic affairs A maximum of 6 credits of internship may be applied toward graduation requirements. No more than 6 credits of internship may be taken at any one time. A minimum of 45 on-site hours must be completed per credit hour earned. Student interns are directed in their work by the employing agency and evaluated jointly with the faculty intern advisor. Grading is on a pass-for-credit basis.

## Overload

A student who wants to take more than 18 credits in a term or more than nine credits in a six-week summer session must obtain the permission of both the advisor and the Vice President and Dean of Academic Affairs. Students may contact Enrollment Services for an Overload Request Form.

## Cross Registration

Pitt-Bradford students may cross register for up to 18 credits per term at another regional campus of the University of Pittsburgh (Greensburg, Johnstown, or Titusville) or for up to 3 credits (excluding external studies) in Pittsburgh. Bradford remains the home institution for student records and student accounts. Courses taken through cross registration must be approved by the student's advisor and the dean of academic affairs.

## Repeating Courses for Credit

The student is responsible for filing a course repeat form when registering for a course that is being repeated. The following rules define the circumstances under which a course may be repeated:

1. A course may be taken for credit only once. The repeated course does not increase the number of credits earned unless the original grade was an F, G, or I.
2. No course passed with a grade of C or higher may be repeated.
3. A Pitt-Bradford course can be repeated for credit only at Pitt-Bradford or (with prior permission) at another campus of the University of Pittsburgh. A Pitt-Bradford course may not be repeated for credit at another institution.
4. A course completed with a grade of C- or lower may be repeated. NOTE: Prerequisite courses must be passed before attempting further courses in a sequence.
5. When a course is repeated, the most recent grade and credits earned are used in the computation of the GPA. The original grade is not removed from the transcript but is marked as a repeat.
6. Students may repeat a course no more than two times.

## Student Self Service Enrollment

Student Self Service Enrollment allows students to enroll in classes and add/drop classes for a particular term and/or session. All undergraduate students are required to meet with an advisor prior to enrolling in classes. An Academic Advisement Required Hold has been placed on all undergraduate student records; and students must see an advisor in order for the hold to be removed. Some graduate students may also encounter an Academic Advisement Required Hold. They too must see an advisor to have it removed.

Each term students will be assigned an enrollment appointment, which indicates the date and time that the student becomes eligible to enroll for classes. You can find your appointment information at the "Student Center" at my.pitt.edu. Students are assigned an enrollment appointment based on the total number of credits earned in their current career. A student's enrollment appointment will begin on the date and time specified. Students may enroll and change their schedule until the end of the published add/drop period for a given term and or session.

Students should be aware that dropping a course or courses may affect athletic and/or financial aid eligibility.

## Extended Drop Period

Under special circumstances, undergraduate students may be eligible to drop a course in the third week of the fall or spring semester, effective with the Spring 2018 semester. Students must meet all of the following criteria to drop a course during the extended drop period:

- Undergraduate students at all campuses
- Undergraduate courses
- Fall and spring semesters
- Students must remain in full-time status after dropping the course(s).
- The student's advisor must provide permission to drop.

Students must review the proposed drop with their academic advisor. If the student's advisor finds that the student is eligible, the advisor will process the drop(s). If the student's advisor cannot process the drop for any reason, then the advisor will request that the Registrar's Office at the student's campus process it.

## Withdrawal (from one or more, but not all classes)

Failing to attend the classes for which a student is registered, or failing to notify the appropriate academic and administrative offices of nonattendance, is not considered an official withdrawal. A student who stops attending a course and does not complete the withdrawal procedure may be assigned an F grade.

After the published deadline for dropping a course, a student may withdraw from a course by processing a Withdrawal Request form (DocuSign Form obtained from Enrollment Services). The deadline for submitting a Withdrawal Request form is published in the Schedule of Classes. W grades are assigned for all courses for which registration is terminated by withdrawal.

# Resignation: Termination of Enrollment for All Classes 

***On 10/3/2023 the following Resignation: Termination of Enrollment for All Classes information was updated in the published catalog. In an effort to provide accurate information the update was made 10/3/2023.***

Students who wish to terminate their enrollment for all courses must do so by officially resigning from the term. To do so, students must first meet with the Dean of Student Affairs to review the resignation process and complete an exit interview. A notification is then sent on the student's behalf to the Enrollment Services Office and other campus offices to finalize the resignation process.

Failing to attend the classes for which a student is registered, or failing to notify the appropriate academic and administrative offices of nonattendance, is not considered an official resignation. Students who fail to follow proper procedures for termination of their registration are responsible for all tuition and fees assessed for the term or session. A student who stops attending a course and does not complete the withdrawal or resignation procedures may be assigned an F grade. The effective date of your resignation will normally be the date you notify the University.

## Student Resignation Fee Schedules of Adjusted Tuition Charges

## Title IV Refund Policy

Adjustments to tuition charges resulting from official resignations are based on the effective date of resignation and in accordance with the federally mandated calculation.

The calculation is based on the period of enrollment completed. That percentage is computed by dividing the total number of calendar days in the term into the number of calendar days completed, as of the date of student notification. The percentage of Title IV assistance to which the student is entitled (has "earned") is equal to this percentage of the term completed, up to 60 percent. If the resignation occurs after 60 percent of the term is completed, the percentage is equal to 100 percent.

The amount of Title IV aid which must be returned is based on the percentage of "unearned" aid. That percentage is computed by subtracting earned aid from 100 percent. The University is required to return the lesser of 1) the unearned aid percentage applied to institutional charges or 2) the unearned aid percentage applied to the total Title IV aid received.

The student is required to return the difference between the amount of unearned aid and the amount returned by the University. If the student (or parents in the case of PLUS loans) is required to return a portion or all of their loan proceeds, the calculated amount is to be repaid according to the loan's terms. Students must return only half the amount of grant funds calculated.

Funds are returned to the following Title IV sources in order of priority:

1. Unsubsidized Federal Direct Stafford Loans
2. Subbsidized Federal Direct Stafford Loans
3. Federal Direct PLUS loans
4. Federal Pell Grants
5. Iraq \& Afghanistan Service Grants
6. Federal SEOG
7. TEACH Grants
8. Other Title IV assistance for which a return of funds is required
9. Other federal, state, private, or institutional financial assistance
10. Student

## Cancellation of Courses

The University reserves the right to cancel any course, including those in which enrollment is insufficient to justify the offering.

## Course Numbering System

6000-6199 Developmental courses

0001-0199 Freshman-level courses

0200-0299 Sophomore-level courses

1300-1399 Junior-level courses

1400-1499 Senior-level courses

Students are required to satisfy the competency requirements in ENG 0101 and ENG 0102 English Composition I and II and mathematics prior to enrolling in more advanced courses.

## Credit by Examination

## Advanced Placement (AP)

The following information regarding Advanced Placement is unique to Pitt-Bradford. Students who plan to relocate to a different campus or school within the University of Pittsburgh should refer to that specific campus or school's policy.

Students who have participated in the Advanced Placement (AP) program of the College Board may request college credit from Pitt-Bradford by having the Educational Testing Service forward their AP scores to the registrar's office. Advanced placement credit is awarded for AP scores of 3,4 , or 5 , as follows:

| AP Examination | Test ScoresPitt-Bradford Courses |  | Credits |
| :---: | :---: | :---: | :---: |
| Art: History | 3,4 or 5 | ART 0000 | 3 |
| Art: Studio Drawing | 3,4 or 5 | ART 0101 | 3 |
| Art: 2D Art \& Design | 3,4 , or 5 | ART 0103 | 3 |
| Biology | 3 | BIOL 0101 | 4 |
| Biology | 4 or 5 | BIOL 0101, BIOL 0102 | 8 |
| Chemistry | 3 | CHEM 0101 | 4 |
| Chemistry ${ }^{1}$ | 4 or 5 | CHEM 0101, CHEM 0102 | 8 |
| Computer Science $\mathrm{A}^{2}$ | 3,4 or 5 | CIST 0000 | 4 |
| Computer Science B ${ }^{3}$ | 3,4 , or 5 | CIST 0000 | 7 |
| Economics-Macro | 3,4 or 5 | ECON 0103 | 3 |
| Economics-Micro | 3,4 or 5 | ECON 0102 | 3 |
| English: Language and Composition ${ }^{4}$ | 3,4 or 5 | ENG 0101 or ENG 0000 | 3 |
| English: Literature and Composition ${ }^{4}$ | 3,4 or 5 | ENG 0101 or ENG 0000 | 3 |
| Environmental Science | 3,4 or 5 | ES 0110 | 3 |
| French: Language | 3,4 or 5 | FR 0201, FR 0202 | 6 |
| German: Language | 3,4 or 5 | GER 0201, 0202 | 6 |


| Government and Politics: American | 3,4 or 5 | PS 0102 | 3 |
| :---: | :---: | :---: | :---: |
| Government and Politics: European | 3,4 or 5 | PS 0103 | 3 |
| History: American | 3,4 or 5 | HIST 0106, HIST 0107 | 6 |
| History: European | 3,4 or 5 | HIST 0103, HIST 0104 | 6 |
| Human Geography | 3,4 , or 5 | GEOG 0101 | 3 |
| Precalculus | 3,4 or 5 | MATH 0132 | 4 |
| Mathematics $\mathrm{AB}^{5}$ | 3,4 or 5 | MATH 0140 | 4 |
| Mathematics $\mathrm{BC}^{6}$ | 3,4 , or 5 | MATH 0140, MATH 0150 | 8 |
| Music: Theory | 3,4 or 5 | MUSIC 0101 | 3 |
| Music: Listening and Literature | 3,4 , or 5 | MUSIC 0102 | 3 |
| Physics B | 3,4 or 5 | PHYS 0101, PHYS 0102 | 8 |
| Physics 1 | 3,4 or 5 | PHYS 0101 | 4 |
| Physics 2 | 3,4 or 5 | PHYS 0102 | 4 |
| Physics $\mathrm{C}^{7}$ | 3,4 or 5 | PHYS 0201, PHYS 0202, PHYS 0203, PHYS 02048 |  |
| Psychology | 3,4 , or 5 | PSY 0101 | 3 |
| Spanish: Language | 3,4 or 5 | SPAN 0201, SPAN 0202 | 6 |
| Statistics | 3,4 or 5 | MATH 0133 or PSY 0201 | 3 |
| World History | 3,4 or 5 | HIST 0000 | 6 |

## College Level Examination Program (CLEP)

CLEP credits may be earned with scores that meet or exceed an established minimum score. Eligibility for CLEP credit is subject to the following conditions:

1. Students are eligible for CLEP credit only if CLEP examinations are taken prior to the completion of 30 college credits, including transfer credits.
2. Students who earned CLEP credit at other institutions must have their test scores reevaluated to determine eligibility for credit at PittBradford.

## International Baccalaureate Examinations (IB)

Students who have participated in the International Baccalaureate (IB) program may request college credit from Pitt-Bradford by having scores sent to the Registrar's Office. Students who relocate or transfer to another campus or who are preparing for graduate school should be aware of the policies at the destination institution.

B Examination
Biology HL (B grade)

Test ScoreCredits Given for Credits
$5 \quad$ BIOL $0101 \quad 4$

| Biology HL (A grade) | 6,7 | BIOL 0101, 0102 | 8 |
| :--- | :--- | :--- | :--- |
| Chemistry HL | 5 | CHEM 0100 | 4 |
| Chemistry HL | 6,7 | CHEM 0101, 01028 |  |
| Economics HL | 6,7 | ECON 0102, 01036 |  |
| English A1 HL | 5,6 | ENG 0101 | 3 |
| English A1 HL | 7 | ENG 0101, 0102 | 6 |
| French HL | $5,6,7$ | FR 0101, 0102 | 6 |
| German HL | $5,6,7$ | GER 0100, 0104 | 6 |
| History American HL | 5 | HIST 0106 | 3 |
| History American HL | 6,7 | HIST 0106, 0107 | 6 |
| History Europe HL | 5 | HIST 0103 | 3 |
| History Europe HL | 6,7 | HIST 0103, 0104 | 6 |
| Math HL | $5,6,7$ | MATH 0140 | 4 |
| Music HL | $5,6,7$ | MUSIC 0101 | 3 |
| Physics HL | 5 | PHYS 0101 | 4 |
| Physics HL | $5,6,7$ | PHYS 0101, 0102 4 |  |
| Psychology HL | $5,6,7$ | ART 0105 | 3 |
| Spanish HL | PSY 0101 | 3 |  |
| Theatre Arts HL | $5,6,7$ | SPAN 0101, 0102 6 |  |
| Visual Arts HL (art/design) | 3 | 3 |  |
| HL (higher level) tests a score of 5 or better |  |  | 3 |

## Challenge Examinations

Credit for some courses can be earned by passing a comprehensive challenge examination. The chair of the division in which the course is offered must approve each challenge. Challenge exam requests are available in the Enrollment Services Office. There is a fee charged prior to the exam.

## Prior Learning Credit

The University may review college-level knowledge and skills you have gained outside of the classroom in order to evaluate if you could be awarded college credit for your experience. You must submit a College Assessment of Prior Learning Application along with documentation. This form and supporting documents will be evaluated by your academic advisor and Associate Dean of Academic Affairs. You may contact Enrollment Services for the application.

## Attendance

## Final Exam Policy

Students having more than two final examinations scheduled for the same day (excluding evening classes) may petition their instructors to assist in rescheduling one exam at a time mutually agreeable to the student and instructor. If it is not possible to reach an agreement with one of the instructors, students should contact the appropriate division chairs.

## Academic Integrity

Members of a university community, both faculty and students, bear a serious responsibility to uphold personal and professional integrity and to maintain complete honesty in all academic work. Violations of the code of academic integrity are not tolerated. Students who cheat or plagiarize or who otherwise take improper advantage of the work of others face harsh penalties, including permanent dismissal. The academic integrity guidelines set forth student and faculty obligations and the means of enforcing regulations and addressing grievances. The guidelines are available on the Web at: https://www.provost.pitt.edu/faculty/academic-integrity-freedom/academic-integrity-guidelines or copies are available in the Office of the Dean of Academic Affairs ( 232 Swarts Hall). Students who wish to appeal a final grade must first meet with the instructor who awarded the grade. Students may then continue to appeal the final grade by seeking a meeting with the chair of the division in which the course in question resides. The final level of appeal may be made with the Vice President and Dean of Academic Affairs, whose decision is final.

The University of Pittsburgh seeks excellence in the discovery and dissemination of knowledge. Excellence in scholarship requires all members of the University community to adhere strictly to the highest standards of integrity with regard to research, instruction, and evaluation. Research misconduct carries potential for serious harm to the University community, to the integrity of science, and to society as a whole. The University's Research Integrity Policy is available online at https://provost.pitt.edu/faculty-handbook/ch4_res_int.

## Grading System

Students may register for courses under three grading options: letter grade, pass for credit, or audit. The letter grade option is assumed unless otherwise declared. See sections on each option for more details.

## Letter Grades

All courses required to satisfy associate and baccalaureate degree requirements-including all courses required for a major, a minor, or general education-must be taken for letter grades, with the exception of those courses designated as graded S and NC only. Pitt-Bradford uses 13 earned letter grades. They are listed below with their equivalent quality point values.
$\mathrm{A}+=4.00$

A $=4.00$ superior achievement

A- $=3.75$
$\mathrm{B}+=3.25$
$\mathrm{B}=3.00$ meritorious achievement

B- $=2.75$
$\mathrm{C}+=2.25$

C $=2.00$ adequate achievement

C- $=1.75$
$\mathrm{D}+=1.25$
D $=1.00$ minimal achievement
D- $=0.75$
$\mathrm{F}=0.00$ failure

## Pass for Credit (S/NC Grades)

General elective courses and certain designated courses may be taken on a pass-for-credit basis. A student enrolled in a course on a pass-for-credit basis receives either a grade of S or NC.
$\mathrm{S}=$ equivalent of a C or better
$\mathrm{NC}=$ no credit
Students must elect the $\mathrm{S} / \mathrm{NC}$ option by the fourth week of a term or the second week of a six week summer session. For sessions that are shorter than six weeks, the decision has to be made in the first week. This decision may not be reversed, nor may a grade of one kind be replaced by a grade of the other kind for that course. Courses for which an S is received are counted toward graduation but are not computed in the GPA. No more than 12 credits with S grades may be counted toward graduation. All courses required for a major, minor, and General Education Program must be taken for letter grades with the exception of those courses designated as graded S or NC only.

## Audit

Any student who has been formally admitted to Pitt-Bradford may audit any course offered by the University. Audited courses appear on the transcript with a grade of NC, but no credit is earned. Regular tuition rates apply to courses taken for audit. Students must elect the audit option at the time of registration. This decision may not be reversed.

## Temporary Grades

Two temporary letter grades may be issued under appropriate extenuating circumstances. A "G" grade is given by an instructor when class work is unfinished because of extenuating circumstances. Students given an incomplete grade will be instructed to complete clearly defined work within a specified period of time. The incomplete grade must be completed and changed to a final grade no later than one year after the term in which the class was taken. You should not be given an incomplete if, in actuality, you need to repeat the course. After a year has passed, a "G" grade remaining on a student's record will automatically be converted to an "NG" grade which may not be changed.

## Grade Point Average (GPA)

The grade point average is an indicator of the level of academic achievement. It is used to determine academic standing and to establish eligibility for honors. The GPA is computed by dividing total quality points earned by total number of credits attempted. (Attempted credits include all classes for which a regular letter grade was earned.) Total quality points are calculated by multiplying the number of credits that each course carries by the numerical value of the grade earned for that course. For example, an A in a 3-credit course is worth 12 quality points ( 4.0 points $\times 3$ credits = 12 quality points). The official GPA is determined in the Office of the Registrar.

## Grade Reports

At the end of each term or session, faculty assign grades for each student enrolled in their respective classes. Students may view their grades online by logging into my.pitt.edu using their University of Pittsburgh user name and password. Students will be able to view the total credits carried, the grade received in each course, the total quality points earned that term, the grade point average (GPA) for that term, and the cumulative grade point average. Grades are posted to the student's record as the faculty assign them.

## Hybrid Courses

All hybrid/blended courses must provide over $50 \%$ of the instruction in a face-to-face modality. For a three credit course this would amount to 22.5 hours of face-to-face contact. The percentage of face-to-face (in-classroom) hours and the percentage of online hours must be stipulated in the course syllabus so that the expectations are clear to students.

## Academic Level by Credits Earned

Level 100.0-23.0 credits Freshman

Level 20 23.5-53.0 credits Sophomore

Level 3053.5 - 83.0 credits Junior

Level 40 83.5-113.0 credits Senior

## Academic Honors

## Dean's List

Full-time students who earn at least 12 credits in a term from Pitt-Bradford (excluding courses with S grades), with no grade lower than a C and no temporary grades, and with a term GPA of at least 3.50 or higher, are placed on the Dean's List at the end of each regular term. A Dean's List is also published annually, at the end of the spring term, for part-time students who have accrued 12 credits in the previous summer, fall, and/or spring semesters and meet the same academic criteria as stated for full-time students.

## Graduation Honors

Those students of a graduating class who have attained an outstanding scholastic record may be graduated with honors. To qualify for honors, a student must have earned a minimum of 60 credits at Pitt-Bradford and attained a cumulative GPA of 3.25 for cum laude, 3.50 for magna cum laude, or 3.75 for summa cum laude.

## Academic Probation and Dismissal

## Academic Standing

Good Academic Standing: A student is in good academic standing so long as both the GPA in the previous term and the cumulative GPA are 2.00 or higher. Note: Minimum GPA requirements for some programs may be higher than 2.00.

Academic Probation: If the GPA for a given term is below 2.00, or if the cumulative GPA is below 2.00, a student is placed on academic probation.
Satisfactory Academic Progress: A student placed on academic probation must maintain satisfactory progress toward a degree in order to avoid suspension. Satisfactory academic progress is defined as a 1.00 or higher for first-term freshmen and a 2.00 or higher for all other students.

## Academic Suspension

Students who are on academic probation for two consecutive regular (fall and spring) terms are subject to academic suspension from the University. First-term students who have completed only one term of full-time study and who have failed to attain a grade point average of at least 1.00 are subject to suspension. Factors such as academic motivation and campus citizenship will be considered in making such decisions for suspension after only one term.

Students who are suspended for academic reasons are not eligible to enroll for the following regular (fall or spring) term and are required to wait at least one full term before a reinstatement request will be considered. Students are either expected to take courses at another institution or do summer work at Pitt-Bradford to qualify for reinstatement. These requirements will be waived only for truly extraordinary circumstances.

## Summer Course Work

Students who have been suspended may be allowed, with the permission of the dean of academic affairs, to enroll in course work at Pitt-Bradford during the summer sessions. A student who moves back to good academic standing through summer course work may request reinstatement to resume studies on continued probation in the following fall term.

## Reinstatement

Reinstatement after suspension is not automatic. A suspended student seeking to resume studies in a subsequent term, after one or more terms of nonattendance, must request reinstatement in a letter to the dean of academic affairs. If the request is approved, the reinstatement letter will stipulate the conditions that must be met the following term, e.g., a limited load, repeats of courses, or change of major. Reinstatement does not cancel the suspension; rather, the reinstated student continues to be on academic probation.

## Dismissal

A student who has been reinstated after suspension and subsequently fails to remain in good academic standing is subject to dismissal. A student who is dismissed for academic reasons may not request reinstatement.

## Graduation Application

An application for graduation must be filed with the Enrollment Services Office prior to the anticipated graduation date.

## Anticipated Date of Graduation Deadline for Application

| April | preceding November 30th. After this deadline, a late fee is charged. |
| :--- | :--- |
| June | preceding March 31st. After this deadline, a late fee is charged. |
| August | preceding May 31st. After this deadline, a late fee is charged. |
| December | preceding September 30th. After this deadline, a late fee is charged. |

## Transcripts

Official transcripts of the student's record are available to order online through my.pitt.edu. Choose Academic Resources and the link to Order Transcripts and Enrollment Verification. There is a small fee charged for transcripts. Students will not be issued a transcript until they have satisfied all financial obligations to the University.

## Transfer Credits

All accepted students who have taken courses at other institutions must have official transcripts sent to the Pitt-Bradford Office of the Registrar. Transfer students will receive written verification of the transfer credits accepted by Pitt-Bradford. The number of accepted transfer credits will be posted on the Pitt-Bradford transcript. The registrar is responsible for the evaluation of transcripts to determine which credits are accepted in accordance with the following guidelines:

1. Only courses taken for credit on a standard (A, B, C, D, F) grading scale are eligible for transfer credit.
2. Courses completed with grades of C - or better at an accredited institution are eligible for transfer credit.
3. Courses completed with grades of D or F are not eligible for transfer credit.
4. Credits earned at another institution through CLEP, through Advanced Placement tests, or through credit by examination are not eligible for transfer credit. Note: CLEP or Advanced Placement scores may be reevaluated for Pitt-Bradford credit.
5. Developmental or remedial courses are not eligible for transfer credit.
6. Quarter system credits will be converted to the equivalent semester credits (quarter system credits $x 2 / 3=$ semester system credits).
7. All Pitt-Bradford course restrictions also apply to transfer credits, including rules for repeating courses for credit and baccalaureate degree requirement distribution eligibility.
8. The academic advisor, the program director, and the registrar will approve the application of transfer credits toward degree requirements.
9. Not more than half of the credits in a student's major or minor may be transferred from another institution.
10. Certain programs may invoke a statute of limitations. For example, course work with a scientific or technical basis will not be accepted by the Department of Nursing if eight or more years have elapsed since the course was completed.
11. No more than 75 credits may be transferred from two-year institutions.
12. No more than 90 credits may be transferred from four-year institutions.
13. Grades earned at other colleges are not included in the Pitt-Bradford GPA. Only the academic credit is transferred.

## Study Abroad

Students planning to study abroad should first contact the coordinator of International Experience. There is a Study Abroad contract that must be reviewed and approved by several areas on campus before you may travel. All courses you plan to take must be approved prior to leaving. There is also a Consortium Agreement that would need to be completed if you plan to utilize financial aid of any kind while studying abroad.

## Anti-harassment Policy Statement

No University employee, University student, or individual on University property may intentionally harass or abuse a person (physically or verbally) with the purpose or effect of unreasonably interfering with such person's work or academic performance, or of creating an intimidating, hostile, or offensive work or academic environment. Consistent with the University Nondiscrimination Policy Statement, this Anti-harassment Policy includes cases where the conduct is based on race, color, religion, national origin, ancestry, sex, age, marital status, familial status, sexual orientation, disability, or veteran status. This policy will be applied with due respect for the University's commitment to equality of opportunity, human dignity, diversity, and academic freedom.

## Sexual Harassment Policy Statement

The University of Pittsburgh is committed to the maintenance of a community free from all forms of sexual harassment. Sexual harassment violates University policy as well as federal, state, and local laws. It is neither permitted nor condoned. The coverage of this policy extends to all faculty, researchers, staff, student, vendors, contractors, and visitors to the University.

It is also a violation of the University of Pittsburgh's policy against sexual harassment for any employee or student at the University of Pittsburgh to attempt in any way to retaliate against a person who makes a claim of sexual harassment.

Any individual who, after a thorough investigation, is found to have violated the University's policy against sexual harassment will be subject to disciplinary action, including, but not limited to, reprimand, suspension, termination, or expulsion. The disciplinary action taken will depend upon the severity of the offense.

## AIDS Policy Statement

The University of Pittsburgh does not discriminate against individuals who are diagnosed as HIV positive or as having AIDS.

The University recognizes that the health condition of individuals is personal and confidential. Reasonable precautions will be taken to protect information regarding the health condition of all members of the University community.

Based on medical evidence that indicates that there is no risk of transmitting HIV through casual contact in the classroom, or circumstances involving only casual contact with others, the University will impose no undue restrictions on faculty, staff, or students who are infected with HIV.

## Policy on Faculty-Student Relationships

The University's educational mission is promoted by professional relationships between faculty members and students. Relationships of an intimate nature compromise the integrity of a faculty-student relationship whenever the faculty member has a professional responsibility for the student.

The University prohibits intimate relationships between a faculty member and a student whose academic work, teaching, or research is being supervised or evaluated by the faculty member. If an intimate relationship should exist or develop between a faculty member and a student, the University requires the faculty member to remove himself or herself from all supervisory, evaluative, and/or formal advisory roles with respect to the student. Failure to do so may subject the faculty member to disciplinary action.

Transgressions of this policy may result in the forfeiture of the legal and monetary protections of the University's indemnification policy. See Policy AO 20 (formally 07-06-06) Faculty and Staff Indemnification.

Issues related to discrimination, harassment, sexual harassment, or faculty-student relationships should be reported to Pitt Concern Connection.
https://app.convercent.com/en-us/LandingPage/2d6327d5-9fec-ea11-a974-000d3ab9f296

## Smoking Policy

Smoking is prohibited in all University owned and leased facilities and in all University vehicles.

## Drug-Free Workplace/Drug-Free Schools Policy

The University of Pittsburgh prohibits the unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance on University property or as part of any University activity. Faculty, staff, and students of the University must also comply with the laws of the Commonwealth of Pennsylvania on the possession and consumption of alcohol.

Violation of this policy will result in disciplinary action, including, but not limited to a warning, written reprimand, suspension (with or without pay), dismissal, expulsion, and/or mandatory participation and successful completion of a drug abuse assistance or rehabilitation program approved by an appropriate health or law enforcement agency.

Any University employee paid from federally funded grants or contracts, or any student participating in any federally funded or guaranteed Student Loan Program, must notify the University of any criminal drug statute conviction for a violation occurring at the University while engaged in University activities.

## Computing Use Policy

Every member of the University community has two basic rights regarding computing: privacy and a fair share of resources. It is unethical for another person to violate these rights. Computing resources are intended for research and educational purposes only; they should be used in a manner consistent with the instructional and research objectives of the University. All users, in turn, are expected to exercise common sense and decency with regard to the campus computing resources. Please read Computing Ethics and Guidelines.

Students are subject to the rules and regulations as described in the University of Pittsburgh Student Code of Conduct. Students should realize that misuse of computing resources could result in the suspension of computing privileges and prosecution under state and federal laws, where applicable.

## Student Code of Conduct

Being a member of the University of Pittsburgh at Bradford campus community is a privilege. This privilege comes with the responsibility to act in accordance with all institutional rules and policies. The Student Code of Conduct (Code) provides information on behavioral expectations and outlines the process used to address violations of these expectations. The Code is subject to change at the discretion of the University. All Students are expected to familiarize themselves with and are required to abide by the provisions of the current Code. To ensure you have the most recent version, please visit https://www.upb.pitt.edu/student-affairs/student-care-conduct. Copies of the Code are also available by request at the Office of Student Affairs, 300 Campus Drive, 220 Frame-Westerberg Commons. Any member of the campus community may submit a report regarding possible violations of the Code via the Student Care and Conduct web site, by email to StudentConduct-UPB@pitt.edu, or by phone at 814-362-5057. For questions or additional information contact the Director of Student Care \& Conduct, located in 222 Frame-Westerberg Commons (within the Office of Student Affairs).

## University Conduct Process

The University's Conduct Process is initiated when a member of the University files a Conduct Referral against a Student/Registered Student Organization alleging that there has been a Violation of the Code. Any member of the University community who has witnessed, has been subject to or has knowledge of a potential Violation of the Code may contact the Office of Student Conduct to complete a Conduct Referral. Students and/or Registered Student Organizations may be charged with Code Violations. Additionally, individual members of Registered Student Organizations may be held accountable for Code Violations when they participate in any Violation committed by the Registered Student Organization. Students are expected to conduct themselves as responsible members of the University community. Students who violate the Code will be subject to disciplinary action by the University, when such conduct takes place on University Property or in the course of a University-sponsored or University-supervised activity. In addition, conduct off-campus may be subject to disciplinary action by the University.

## Family Educational Rights and Privacy Act of 1974

The Federal Family Educational Rights and Privacy Act (FERPA), also known as the Buckley Amendment, is designed to protect the privacy of students. It requires the University to comply with the following principles:

- Student records are open for inspection by students upon request. Specific documents that students have waived their right to inspect remain confidential.
- Students have a right to challenge the accuracy of records and to request that they be amended.
- The institution may not release student records outside the institution without student consent, unless one of several exceptions applies.
- Requests from outside the institution for information regarding students should be documented, as should releases of student information.
- Students have the right to file a complaint with the U.S. Department of Education concerning alleged failures by the University to comply with the requirements of the Family Educational Rights and Privacy Act.
- Students have a right to obtain a copy of the University policy regarding the Family Educational Rights and Privacy Act. It may be obtained in the Offices of the Registrar and Enrollment Services.
- The University may establish categories of information known as "Directory Information" and release this information without student consent, upon request by individuals external to the institution. Students may request that the categories below be excluded from Directory Information that would be released without student consent, upon request by a third party.
Directory Information includes the following information:
- Name
- Address
- Telephone number and e-mail address
- Major field of study
- Achievements, degrees, academic awards or honors
- Weight and height, if a member of athletic teams
- Place of birth
- Previous educational institutions
- Participation in officially recognized activities and sports
- Student's photograph

When the Offices of the Registrar and Enrollment Services receive a student's refusal to permit the release of "Directory Information," no further disclosures are made without that student's written consent (except to parties who have legal access to student records without written consent). To rescind this action, the student must submit a request in writing to the Offices of the Registrar and Enrollment Services. Note that the following procedures apply:

1. Students may review their educational records by submitting a written request to the records custodian in the appropriate University unit. A listing of those University offices that routinely possess educational records of students are set forth in University Procedure 09-08-01.
2. Students may request amendment of educational records by submitting a written request to the records custodian and following the steps set forth in University Procedure 09-08-01.
3. As set forth in University Policy $09-08-01$, access to a student's educational records may be required and permitted by University faculty and staff for legitimate educational purposes where access by such individuals is necessary to complete their University-related duties.

# Statement of Compliance Regarding Satisfactory Academic Progress (SAP) for VA Educational Beneficiaries - 38 US Code Section 3675(b) 

This policy applies to students who are VA beneficiaries and is intended to prevent the submission of VA-claims ("certifications") for those students who are suspended. Specifically:

- In this instance, VA beneficiaries are defined as students receiving VA educational benefits under Chapter-30, Chapter-33, Chapter-35 and Chapter-1606, Title 38 U.S. Code.
- Students placed on academic probation at the end of the term may be certified for VA educational benefits for the subsequent term. If the student does not meet satisfactory academic progress in that subsequent term-defined as attaining a cumulative GPA at or above 2.00 for full-time students or attaining a cumulative GPA at or above 2.00 after attempting 12 additional credits for part-time students-the university will immediately suspend further VA certifications on behalf of the student.
- Students returning from one calendar year of suspension must re-apply for admission to the university. If accepted, those students may be certified for VA educational benefits.
Certification of Chapter-31 students will be at the discretion of the student's VA vocational rehabilitation counselor.


## Statement of Compliance Regarding VA Educational Beneficiaries - 38 US Code Section 3679(e)

As a matter of policy, the University of Pittsburgh allows students identified as covered individuals* to attend and participate in all course(s) of education for any given term in which the student has been certified for VA educational benefits. This policy includes those circumstances in which VA payment(s) for student tuition and fees is late or delayed for up to 90 days after date of certification. The University retains the right to impose late fees upon those students who incur or retain an outstanding balance beyond the amount of expected VA tuition \& fee payment for the term.

It is school policy to request all beneficiaries of VA educational benefits-including covered individuals*-provide the following documentation as part of certification process:

- VA Certificate of Eligibility (COE) or Statement of Benefits as printed from the VA.gov website
- Completion of a certification request form (in hard-copy or on-line), which includes biographical information necessary for submission in the VA's IT system of record-VA-Once.
Failure to provide such documentation will result in the delay of any VA claim or certification.

[^0]("GI Bill®" is a registered trademark of the U.S. Department of Veterans Affairs (VA). More information about education benefits offered by VA is available at the official U.S. government website at www.benefits.va.gov/gibill.)

## Statement of Compliance Regarding the Johnny Isakson and David P. Roe Veterans Health Care and Benefits Improvement Act of 2020 -

 Section 1018In accordance with the "Responsible Education Mitigating Options and Technical Extensions Act" or the "REMOTE Act" of 2021 to Section 1018 of the Johnny Isakson and David P. Roe, M.D. Veterans Health Care and Benefits Improvement Act of 2020 (Public Law 116-315)., the University of Pittsburgh provides a College Financing Plan (formerly known as Financial Aid Shopping Sheet) to every student who completes a FAFSA application including all VA beneficiaries.

Per Veterans Benefits Administration notification, "Isakson and Roe, Section 1018 Changes, dated June 13, 2022: The REMOTE Act affords the opportunity for schools to use the College Financing Plan (CFP), available through the U.S. Department of Education as a means to satisfy the requirements of section 3679(f). An Educational Training Institution that utilizes this form is providing sufficient consumer information, will be exempt from all section 3679(f) requirements, and does not need to apply for a waiver. An Educational Training Institution does not need to be participating in Federal Title IV Federal Student Aid to utilize the CFP to satisfy the requirements of section 3679(f).

# Financial Information 

## Student Financial Aid

The Office of Financial Aid at Pitt-Bradford is committed to serving students and families by providing counseling and consumer information to students and families to assist them in receiving the maximum assistance for which they qualify. Pitt-Bradford has designed a comprehensive financial aid web site to assist in understanding the process and answering many general questions. Additionally, our financial aid professionals are available to address any questions or concerns.

Financial aid is awarded from three major sources: federal, state and institutional funds. A financial aid award is made up of one or several different types of aid: grants, scholarships, loans and work opportunities.

Financial need is determined by calculating the difference between Expected Family Contribution (EFC) and the expected total cost of attending school for a year. The EFC is determined by the information provided on the Free Application for Federal Student Aid (FAFSA). After the FAFSA is filed, a Student Aid Report (SAR) is received via email from the federal processor with the EFC listed on the first page. Cost of attendance (COA) is comprised of average tuition, fees, room and board, transportation, and personal costs. EFC and COA can be viewed on the Financial Aid tab in the Student Service Center on my.pitt.edu.

## Student Financial Aid Rights and Responsibilities

## Students have the right to know:

- What financial aid programs are available.
- The deadlines for submitting applications for each of the financial aid programs available.
- How financial aid is distributed and how decisions on that distribution are made.
- How financial need is determined. This includes how costs for tuition and fees, room and board, travel, books and supplies, personal and miscellaneous expenses, etc., are considered in the student budget.
- What resources (such as parental contribution, other financial aid, student and family assets, etc.) are considered in the calculation of financial need.
- How much of the financial need as determined by the institution has been met.
- An explanation of the various programs in the student aid package.
- The school's refund policy.
- What portion of the financial aid must be repaid and what portion is grant aid. If the aid is a loan, the student has a right to know what the interest rate is; the total amount that must be repaid; the repayment procedures; the length of time to repay the loan; and when repayment is to begin.
- How the school determines satisfactory academic progress and what happens if progress is less than satisfactory.
- That all documents submitted to the Office of Financial Aid are confidential.


## Student and financial aid recipients' responsibilities are to:

- Complete all documents required for financial aid accurately and to submit them before the deadlines to the proper place.
- Provide correct information. In most instances, misrepresentation of information on financial aid application forms is a violation of law and may be considered a criminal offense which could result in indictment under the U.S. Criminal Code.
- Read, understand and retain a copy of all forms requiring signature.
- Accept responsibility for all signed agreements.
- Return all additional documentation, verification, corrections, and/or new information requested by the financial aid office or the agency to which the application was submitted.
- Be aware of the school's refund procedures.
- Participate in an entrance interview before applying for loans from any source. The interview will review available loans and the terms and conditions of each.
- Participate in an exit interview prior to graduation or transferring to another school.


## Awards are Subject to Change

- Financial aid applications are evaluated using other general information provided by the student concerning enrollment plans (full- or parttime study), housing status, dependency status, and state residency.
- Should any of this original information change, the financial aid package will be reviewed and may be adjusted by this office.
- A change to less than full-time enrollment may cause awards to be canceled, as some programs of financial aid are only available to fulltime students.
- Changes to housing arrangements may affect financial aid.
- If financial aid awards assumed In-State tuition assessment and the student is assessed tuition as Out-of-State, financial aid will be reviewed and adjusted.
- If changes are necessary, our office will make the necessary adjustments to financial aid at the time we are aware of the changes. A revised award notification will be sent accordingly.


## Grants and Scholarships

Federal Pell Grant - Awarded to students based on need. EFC and enrollment status determine eligibility based on the U.S. Department of Education Pell Payment Schedule. Limited to six (6) years at full-time enrollment.

Federal SEOG - (Supplemental Educational Opportunity Grant) - This award is based on need. It is funded by the federal government but administered by the school. Must be Pell eligible. Priority is given to the students with the most need. Awards may differ from school to school.

Pennsylvania State Grant - Must be a PA resident at least 12 months prior to enrolling in the university and must have completed the FAFSA by May 1. Eligibility and amount are determined by Pennsylvania Higher Education Assistance Agency (PHEAA), not the university. For questions regarding residency, status notice information, or income validation call PHEAA at 1-800-692-7392.

Pitt-Bradford Academic and Geographic Scholarships and Awards - Scholarships offered at-entry. All freshman merit awards are on the condition of confirmation of high school graduation and receipt of a final, official high school transcript. All transfer merit awards are based on the condition of receipt of final, official high school transcripts (or documentation for GED), and final, official transcripts from all previous colleges and universities attended.

Donor Scholarships - These scholarships are awarded to returning students only. They are not automatically renewed each year. Priority consideration is given to students who complete a FAFSA by March 1 of each year, enrolled in at least 6 credits by April 15, and have at least a 2.0 cumulative GPA. Students will be required to submit a thank-you note to be considered in subsequent years. Completion of the verification process, if selected, is required before the scholarship will be credited to student accounts. Please see our website for more information. Preference given to those students with student loans.

## Other Scholarships

Students are encouraged to explore all opportunities for financial support in their local communities. Funding sources and agencies include civic groups, churches, charitable foundations, fraternal organizations, hospitals, unions, and businesses. Students who receive a scholarship or grant from a source other than federal or state government or Pitt-Bradford are required to report the award to the Office of Financial Aid. Students can send the office a written statement providing the information about the outside scholarship/grant or send a copy of the notification received from the organization that made the award. Pitt-Bradford is required by the federal government to monitor the total amount of financial aid each student receives from all sources to ensure the student's total financial aid is limited to the demonstrated need and/or cost of education. The Web is a great place for free scholarship search services. For more information on outside scholarships please see the Pitt Funds Me link at my.pitt.edu.

## Self Help

Federal Work Study - This is a need based program. It is funded by a match between the federal government and the school. An award of work study does not guarantee a position; all jobs are filled at the discretion of individual departments. Biweekly paychecks are direct deposited for hours worked; the amount is not deducted from the student account balance.

## Federal Direct Student Loan:

- This is a federally guaranteed loan in the student's name.
- Generally a student cannot be turned down for a Federal Direct Student Loan unless they have defaulted on a previous student loan or are not a U.S. citizen or eligible non-citizen.
- Must be enrolled in at least 6 credits.
- Repayment begins 6 months after the student is no longer enrolled or drops below 6 credits.
- See our website for specific rates.

Subsidized Federal Student Loan:

- Need based. Interest accrued on this loan is paid by the federal government while the student is enrolled in at least 6 credits.
- Interest accrues during repayment at a fixed rate of $4.99 \%$ as of July 2022, 5.49\% as of July 2023.


## Unsubsidized Federal Direct Student Loan:

- Not need based. The student is responsible for the interest that accrues on the loan from the time it is disbursed until it is paid in full.
- Interest accrues at a fixed rate of $4.99 \%$ as of July 2022, 5.49\% as of July 2023.
- Please see our website for additional information.

When borrowing, it is important to consider how to manage debt when repaying the loan.

- A manageable level of debt payment is considered to be between $8 \%$ and $15 \%$ of your first year's gross income.
- Monthly student loan payments normally last up to 10 years.


## Ways to Meet the "Gap"

## Federal Direct Parent PLUS Loans

The Federal Direct Parent PLUS Loan is a credit based loan with a fixed interest rate of $7.543 \%$ as of July 2022, and rate of $8.05 \%$ as of July 2023 with default and up-front origination fees of $4.228 \%$ after October 1, 2020 and before October 1, 2023.
Students must be enrolled at least half-time in a degree seeking program, be meeting the Federal Academic Progress Standards (SAP), and have a completed FASFA on file for parents to access a Federal Direct Parent PLUS loan.

The borrower must be either a biological or adoptive parent, or step parent. Parent borrowers and their student must be U.S. citizens or eligible noncitizens and not currently in default on federal aid. Through the Federal Direct Parent PLUS Loan Program, parents of dependent students may borrow up to the cost of education less any other financial aid received by the student.

If a parent is denied a Federal Direct Parent PLUS Loan, the student may automatically be considered for an additional unsubsidized Federal Direct Student loan in an amount up to $\$ 4,000 /$ year for freshman and sophomores and up to $\$ 5,000 /$ year for juniors and seniors. Students will receive an email to their Pitt email asking if they want additional unsubsidized loan funds. Students must respond in order for these funds to be processed.

Parent borrowers also have the option to either appeal the credit decision with the U.S. Department of Education or get an endorser for the loan by choosing the associated bubble on the results page after submitting the online Federal Direct Parent PLUS Loan application at studentaid.gov.

For more information, please see our website.

## Alternative Loans

A private alternative loan is a non-federal loan, through a private lender, typically in the student's name and usually requiring a cosigner. Approval and interest rates are based on the creditworthiness of the borrower and cosigner. Each alternative lender has different eligibility requirements, loan rates, terms, and conditions.

The Office of Financial Aid can assist with information on lenders. FAST CHOICE is a landing page that offers comparisons of loans, loan counseling, and borrowing options to fit your individual needs. However, the University of Pittsburgh at Bradford does not endorse, recommend nor promote any particular lender.

The loan must go through a credit check for approval. Students may borrow up to the cost of attendance less other financial aid.

Interest rates vary. Payment may be deferred until a student is out of school or enrolled in fewer than 6 credits; however, the interest will be accruing and should be paid, if possible, while in school. These private education loans do not have an interest rate cap and may or may not be a fixed interest rate.

Federal guidelines determine the timeline for the actual disbursement of funds. The Financial Aid tab on the Student Service Center at my.pitt.edu provides the cost of attendance information needed for the self-certification process of the alternative loans. Click on the above link for additional information.

## Self Certification Form

## Payment Plan

PittPAY is the University's online student financial portal where students and their Authorized Users can view summary and detailed student account information, including the balance due and due date. Students and their Authorized Users are notified by email periodically before the due date if there is a balance due. In PittPAY, you can also make online payments, enroll in eRefunds, enroll in the optional payment plans, and generate a Term Statement to print, save, or provide to others who request one from you.

You may pay your balance due in full by your due date, or you can enroll in a PittPAY Payment Plan and pay in installments over time, instead. Our optional payment plans are designed to help families spread out the balance due over a series of regular installments. Depending on the date you enroll in a plan, you may be up to six installments for fall or spring terms, or up to 3 installments for summer term. Payment plan installments will be automatically deducted on the 5 th of each month from the bank account or credit card you specify when enrolling in the plan. There is a $\$ 45$ sign-up fee for each term-based plan. More information is available at https://payments.pitt.edu/payment-plans/.

## Other Important Information

## Release of Student Information to Parents and Others

The Family Educational Rights and Privacy Act of 1974 (FERPA), as amended, states that when a student begins attending a college or university, the rights previously held by the parents shall be accorded to the student.

The university may release information to the parents of a student, without the student's written consent, only if the student is a dependent as defined in Section 152 of the Internal Revenue Code of 1954.

The payment of a student's tuition by the parent does not, by itself, give the parent access to a student's record. Students may request this form from the Enrollment Services Office.

## Special Note to Undergraduate Students

It normally takes 120 credits to earn a bachelor's degree. To graduate in four years, a student must enroll in a minimum of 15 credits per semester. Enrolling in 12 credits (minimum for full-time students) would extend graduation 1 to $11 / 2$ years. There are some financial aid program limits that could make this last year financially difficult. For example, PA State Grant has a limit of 8 semesters (part-time is proportionately more).

## Renewal of Financial Aid

Financial aid awards are not automatically renewed each year. The FAFSA for the 2023-24 academic year will be available after December 1, 2022. The priority deadline for filing is March 1. Pennsylvania's state grant deadline is May 1.

## Making Corrections on Your FAFSA

Students may jeopardize their eligibility for financial aid if corrections are made to the household or income/asset sections of the FAFSA after a financial aid award letter is received. Making corrections also increases the likelihood of being selected for verification. If students need to make corrections, it is important to contact the Office of Financial Aid.

## Changes in Circumstances

It is the student's responsibility to report changes that may affect eligibility for financial aid: for example, a scholarship that is not listed on the award letter, or if enrollment, residency or housing status changes, let the Office of Financial Aid know.

## Special Conditions

For special circumstances that are not reflected in the information provided on the FASFA, contact our office. The Office of Financial Aid will only make earned income adjustments after the current year's federal taxes are completed. IRS Tax Transcripts and w2s from the previous and current year must be submitted for review no later than the end of the first week of April. Changes may be made retroactive to the fall semester.

## Summer Financial Aid

Limited financial assistance may be available for the summer term, usually in the form of student and parent loans and/or Federal Pell Grants.

Students need to be registered in at least 6 credits and have loan eligibility left from the previous academic year in order to receive a Federal Direct Student Loan for summer. Alternative educational loans are also available to students with no federal student loan eligibility left from previous academic year. Students should complete a separate application (available in the Office of Financial Aid) after registering for summer classes.

## Study Abroad

If you are planning to participate in a Study Abroad program contact the Office of Financial Aid as early in the term before the study abroad experience as possible so that we may help you plan for your term abroad. Financial aid is available for Pitt approved programs only.

## Veteran and Soldier Benefits

Pitt-Bradford does not have a veteran's liaison on-campus; only a certifying official. It is the responsibility of the veteran to obtain the proper paperwork, and file the necessary applications on-time for their benefits.

Pitt-Bradford requires a Letter of Eligibility (LOE) before we can certify any benefits. Also, for those that receive Federal Tuition Assistance (FTA), veterans must submit the Army Tuition Assistance Authorizations for all approved classes. VA Beneficiaries must notify the Office of Financial Aid of all changes in enrollment.
benefits.va.gov/gibill/

## ROTC Scholarships

The U.S. Army awards financial aid on a competitive basis to outstanding young men and women who are interested in a military career and who pursue a commission as an officer through a Reserve Officers Training Corps (ROTC) program while in college.

All U.S. Army ROTC scholarships pay up to $100 \%$ of tuition or $\$ 10,000$ for room and board per year, Additionally, cadets receive a stipend for books and a tax-free subsistence allowance.
Students who enroll in the U.S. Army ROTC program as freshman and sophomores may apply for two- and three-year scholarships, and all students who accept U.S. Army ROTC scholarships enter a contractual agreement with the U.S. Army.
Specific information is available through the Office of Student Affairs at Pitt-Bradford, or from the Department of Military Science, which has offices on the campus of Saint Bonaventure University.

## Mailing Address

All correspondence from the university will be mailed either to the permanent/mailing address provided on the admission application or to your campus mailbox (if you live on campus). It is your responsibility to keep addresses current, which includes off-campus addresses. Change of Address Forms are in the Enrollment Services Office.

## Pitt-Bradford Email

Students admitted to Pitt-Bradford will receive a Pitt email account. This is the official means of communication. If you use a private account, please forward your Pitt email to your private email so that you will receive the important information that is sent directly to the student or the student distribution list from this office.

## Verification of FAFSA Information

New Students: If you are selected for verification, we will not be able to credit your student account with federal funds until you have completed the verification process.

Returning Students: If you are selected for verification, you will not be awarded federal funds until you have completed the verification process and your FAFSA status is Official.

Both new and returning students will receive an email with instructions to complete the verification process online.

## Federal Tax Information

FAFSA filers are strongly encouraged to use the IRS Data Retrieval Tool (IRS DRT). This process allows the IRS to automatically pre-fill FAFSA income questions.

If an applicant selected for verification has not successfully transferred information from the IRS, or has changed information provided by the IRS, the Department of Education expects the institution to require the applicant, and if necessary, the applicant's spouse or parent(s), to provide an IRS Tax Return Transcript (*some conditions do apply):

## IRS Tax Return Transcript

Tax filers can request a transcript of their 2021 tax return from the IRS, free of charge, in one of three (3) ways:

- Online request - www.irs.gov
- Telephone request - 1-800-908-9946
- Paper request - IRS Form 4506T-EZ
*Some applicants who are selected for verification will not be able to participate in the IRS DRT and will need to submit an IRS Tax Return Transcript of 2021 tax year information for the applicant and/or their parents/spouse (as applicable) to their institution. The list includes the following:

1. When the applicant or parent did not use the IRS DRT - either at initial FAFSA filing or when making corrections.
2. When information included on the FAFSA using the IRS DRT was subsequently changed.
3. When a married independent applicant and spouse filed separate tax returns.
4. When the married parents of a dependent student filed separate tax returns.
5. When an applicant or applicant's parents had a change in marital status after the end of the tax year on $12 / 31 / 121$.
6. When the applicant, or parents, or spouse, as applicable, filed an amended tax return.
7. When the applicant, or parents, or spouse, as applicable, did not file a U.S. 1040/A/EZ tax return (this includes U.S. territory tax returns and foreign country tax returns).

## Non Tax Filers

Independent students and parents who are not required to file federal taxes and are selected for verification must turn in a letter of non-filer status from the IRS. The IRS form 4506-T is required in order to fulfill this request.

## PITT-BRADFORD SATISFACTORY ACADEMIC PROGRESS POLICY

The Office of Financial Aid is required by federal regulations to monitor student progress toward the completion of a degree. Below are the guidelines, which determine if a student is maintaining Satisfactory Academic Progress (SAP).

Student progress will be reviewed at the end of each spring term. Students will be notified in writing by the Office of Financial Aid if not meeting academic progress and given instructions on the appeal requirements and process. Those not making progress will be denied student aid. This includes:

- Federal Pell Grant
- Federal SEOG (Supplemental Educational Opportunity Grant)
- Federal Direct Student Loans
- Federal Direct Parent PLUS Loans
- Most University funds*
*Merit scholarship recipients (Panther), must meet housing and GPA requirements (CUM 2.25 at the end of the spring term) to receive the award. Go Beyond NYS, and Seneca Book Award must meet minimum GPA requirements (CUM 2.25 at the end of the spring term).

If a student is academically dismissed or leaves to attend elsewhere (i.e., transfer to another institution) and then later return to Pitt-Bradford, the student is no longer eligible to receive the original scholarship awarded.

## Standards of Academic Progress for Financial Aid

- Full- and part-time students who have earned less than 30 credits must complete $67 \%$ of all attempted credits and must maintain a 1.5 Cumulative GPA.
- Full- and part-time students who have earned 30 credits or more must complete $67 \%$ of all attempted credits and must maintain at least a 2.0 cumulative GPA.


## What to Do If Denied Aid Due To SAP

If denied aid, students have the option of paying for classes using their own funds until they reach satisfactory academic progress.
Or, if a student has experienced circumstances beyond their control, they may appeal the decision to the Financial Aid Appeal Committee using the Satisfactory Academic Progress Appeal Form available on our website.

Appeal must include:

- An explanation of why the student failed to make satisfactory academic progress

AND

- What has changed that will allow the student to make satisfactory academic progress at the next evaluation.

The completed appeal and the required documentation must be submitted to Academic Advising. The appeal form and the required documentation will then be forwarded to the Financial Aid Appeal Committee for review. The decision of the Appeal Committee is final and may not be appealed. Students will receive email notification of the committee's decision.

If an appeal is approved, the student is placed on "financial aid probation" or "academic plan" status and Title IV aid eligibility is reinstated for the next payment period or term (with possible requirements specified by the school).

If the student does not make satisfactory progress or meet requirements of the academic plan by the end of the next payment period or term, the student loses eligibility for Title IV aid again. The student must then complete at least six credits on their own before they can appeal again.

## PHEAA (PA State Grant) Academic Progress

PHEAA has separate guidelines for checking academic progress. Students will be notified by PHEAA if they are not making progress for their state grant. All appeals for this grant are handled through PHEAA directly.

Generally speaking, full-time students, must complete 24 credits per academic year. Part-time students must complete 12 per academic year.

## Tuition, Fees, and Other Expenses

Note: Pitt-Bradford reserves the right to increase or revise tuition, room, board, and other charges without advance notice. Other course-specific fees (i.e., labs, nursing) may apply.

The University's tuition and mandatory fee rates are available on the Tuition Rates and Mandatory Fees page.

## Determining How Full-Time vs Part-Time Students are Billed

## In the Fall and Spring Terms:

Undergraduate students registered for 12 to 18 credits in the Fall and Spring Terms are regarded as full-time students, and are assessed the current undergraduate "flat" tuition rate for their academic center.
Undergraduate students registered for fewer than 12 credits are considered part-time, and are billed on a per-credit basis.
Graduate students registered for 9 to 15 credits in the Fall and Spring Terms are regarded as full-time students, and are assessed the current graduate "flat" tuition rate for their academic center.

Graduate students registered for fewer than 9 credits are considered part-time, and billed on a per-credit basis.
Students will be charged per credit for each credit exceeding the maximum full-time credit limit.

## In the Summer Term:

Students are billed on a per-credit basis when enrolled in less than 12 credits. They are charged a flat rate if enrolled in 12 or more credits in the Summer Term. Students in the School of Dental Medicine Dental Hygiene Certificate Program; the Swanson School of Engineering undergraduate program; the Katz Graduate School of Business Full-time MBA, MBA/MS and EMBA Programs; and the School of Nursing Accelerated Nursing Program.

## About Mandatory Fees

Mandatory Fee figures are applicable to students regardless of Pennsylvania or Out-of-State residency. Not listed under Mandatory Fees are:

1. Course/major fees that are based upon registration in specific courses (e.g., lab fees).
2. Academic fees (e.g., application fees, academic program fees for programs such as Cooperative Engineering Program and Study Abroad).
3. Service fees (e.g., late application for graduation and lost ID cards).
4. Professional workshop and professional development fees
5. Specific-student fees such as the Freshman Socialization Fee at the Greensburg Campus.

## Miscellaneous Fees:

| Physical Education Fee: | $\$ 35 /$ course |
| :--- | :--- |
| Sciences lab fee: | $\$ 35-\$ 50 /$ course |
| Nursing lab fee: | $\$ 35-\$ 75 /$ course |
| Late payment fee: | $\$ 50-\$ 200$, depending on number of days and amount past due |
|  |  |

The following fees must be paid prior to initially enrolling:

| Application fee: | $\$ 45$, submitted with the application for admission. |
| :--- | :--- |
| Tuition deposit: | $\$ 225$, guarantees matriculation in the incoming freshman class. It is nonrefundable and is credited as partial payment <br> of tuition. |
| Housing reservation: | $\$ 125$, reserves on-campus housing for returning students. It is nonrefundable and is credited as partial payment of <br> the fall term room charge. |
| Orientation fee for new <br> students: | $\$ 150$ |

## Payment Policies

Students and their Authorized Users will be notified by email periodically before the due date if there is a balance due on the student account. Monitor the Account Summary and Account Activity tabs in PittPAY to see your balance due, due date, and account activity.

Pending loans will be counted as a credit on the student's account as Anticipated Aid. Anticipated Aid will eventually expire if the student does not complete all of the aid requirements that make it possible for loans to disburse, so they can be applied to the student account. When Anticipated Aid expires, the loan amount(s) are added back into the balance due and become the responsibility of the student.

## REGISTRATION FOR ANY SUBSEQUENT TERM WILL NOT BE PERMITTED UNTIL THE BALANCE DUE ON A CURRENT TERM IS PAID IN FULL.

You may pay your balance due in full by the due date, online in PittPAY. Payments made by eCheck are processed for no additional fee. A nonrefundable convenience fee is added by the payment processor for each debit or credit card payment. You may elect to enroll in an optional payment plan, instead. The optional payment plans are designed to help families spread out the balance due on the student account over a series of monthly installments. The earlier you enroll in a payment plan, the more installments you are eligible to receive. Your payment plan offers appear on the Payments Plan tab in PittPAY.

## Title IV Refund Policy

Adjustments to tuition charges resulting from official resignations are based on the effective date of resignation and in accordance with the federally mandated calculation.

The calculation is based on the period of enrollment completed. That percentage is computed by dividing the total number of calendar days in the term into the number of calendar days completed, as of the date of student notification. The percentage of Title IV assistance to which the student is entitled (has "earned") is equal to this percentage of the term completed up to 60 percent. If the resignation occurs after 60 percent of the term is completed, the percentage is equal to 100 percent.

The amount of Title IV aid that must be returned is based on the percentage of "unearned" aid. The percentage is computed by subtracting earned aid from 100 percent. The University is required to return the lesser of 1) the unearned aid percentage applied to institutional charges or 2) the unearned aid percentage applied to the total Title IV aid received.

The student is required to return the difference between the amount of unearned aid and the amount returned by the University. If the student (or parents in the case of PLUS loans) is required to return a portion or all of the loan proceeds, the calculated amount is to be repaid according to the loan's terms. Students must return only half the amount of grant funds calculated.

Funds are returned to the following Title IV sources in order of priority:

1. Unsubsidized Federal Direct Stafford Loans
2. Subsidized Federal Direct Stafford Loans
3. Federal Direct PLUS loans
4. Federal Pell Grants
5. Iraq \& Afghanistan Service Grants
6. Federal SEOG
7. TEACH Grants
8. Other federal, state, private, or institutional financial assistance
9. Student

## Board

The University's Room and Board Rates are available on the Room and Board Rates page. (this page may reflect rates for 2020-21. Rates are updated in late July).

## Residency And Tuition Rates

Tuition rates for the University of Pittsburgh are based on whether or not the student is a resident of the Commonwealth of Pennsylvania. A higher tuition rate is charged to nonresidents.
Guidelines for Determining Eligibility for Reduced Tuition Rates
Any admitted student may petition for reclassification to resident status by supplying convincing evidence to be reviewed by the Registrar's Office. To be effective for a particular term, petitions must be submitted within the first 30 calendar days of the term ( 15 calendar days of the session.) Students who change their residence from Pennsylvania to another state must promptly give written notice to the Registrar's Office and students under 21 years of age must report a change in their parents' or legal guardians' address.
Students who are found eligible for resident tuition rates at the time of initial classification due to an error in classification are subject to retroactive reclassification as nonresidents and are responsible for the payment of all related tuition and fees.

Eligibility for Pennsylvania tuition (in-state rates) is governed by the University's Policy on PA Residency Classification. The policy establishes the criteria used to classify a student as a Pennsylvania Resident (PA Resident) or Non-Resident for tuition purposes. PA Residents are charged in-state tuition rates; Non-Residents are charged out-of-state rates. The term "PA Resident" for tuition billing purposes may differ from other definitions of Pennsylvania residency.

## I. Scope

This policy affects tuition rates charged to students who are enrolled in classes at the University of Pittsburgh. It outlines the requirements that must be met to be considered a PA Resident and the responsibilities of those charged with managing the process governing classification of a student's residency, including the PA Residency Coordinators at each campus.

## II. Definitions

A. PA Resident: Classification of students who are charged the in-state tuition rate.
B. Enrolled: Enrolled, as it pertains to this policy, means a student is registered for one or more classes.

## III. Policy

One of the requirements to be considered a PA Resident for tuition purposes is that a student must live in PA for 12 continuous months immediately prior to enrollment at an institution of higher education in PA. This is called the " 12 Month Requirement." Students under the age of 22 are considered minors for purposes of residency determination and are classified based on the residency information of their parent(s) or legal guardian(s).

In addition to meeting the 12 Month Requirement, Non-U.S. Citizens must submit documentation proving they fall into one of the three immigration categories in the "Non-U.S. Citizens Immigration Requirements" section of this policy.

Section $V$ below outlines the requirements that must be met in determining residency classification. As explained in that section, PA Residency Coordinators serve as the central points of contact for submitting materials required under this Policy. Contact information for the PA Residency Coordinators at each campus is provided in Section IX-Resources, below. Where deadlines in this Policy refer to academic term and session dates, please refer to the University's official academic calendar on the Office of the University Registrar's website.

## Scholarships Contingent on Non-Residency

A student receiving a scholarship or grant contingent on maintaining a residence in a state other than PA will be classified as a Non-Resident for tuition purposes.

University of Pittsburgh grants or scholarships awarded to the student based on out-of-state residency status may be reduced or cancelled if the student is subsequently reclassified as a PA Resident.

## IV. Requirements

## A. 12 Month Requirement

Students who have lived in PA for at least 12 consecutive months immediately prior to enrollment at any institution of higher education in PA meet the 12 Month Requirement. For U.S. Citizens, this is all that is required for classification as a PA Resident. Students who are Non-U.S. Citizens must also meet the immigration requirements described in Subsection B below in order to be eligible for reclassification to PA Resident. Students under the age of 22 are considered minors for purposes of residency determination and are classified based on the residency information of their parent(s) or legal guardian(s).

Students who do not meet the 12 Month Requirement are classified as Non-Residents. Those who wish to challenge their classification can file a petition with their campus PA Residency Coordinator. Instructions are provided below in Section VI. Petitioning to Overcome the 12 Month Requirement.

## B. Non-U.S. Citizens Immigration Requirements

In addition to meeting the 12 Month Requirement, Non-U.S. Citizens must demonstrate that they fall into one of three immigration categories to be reclassified to PA Resident:

1. Asylee, refugee, or U.S. Lawful Permanent Resident (green card holder); or
2. Has an approved I-140 or I-130, along with Form I-797, the Receipt Notice for the filing of Form I-485; or
3. Has an approved I-140 or I-130, along with evidence to support that they intend, but are unable, to file a Form I-485 because they do not have a current priority date as determined by the most recent U.S Department of State Visa Bulletin.* To provide sufficient evidence under this category, the student must provide evidence of their country of birth; in most cases, a copy of the passport identification page meets this requirement.
Filing Deadlines. Students who meet the 12 Month Requirement and fall into one of the immigration categories above must submit copies of their immigration documents to their campus PA Residency Coordinator to request reclassification by:

- Fall, Spring, and Summer Terms: no later than 30 calendar days after the first official day of classes for the term.
- Summer session within the Summer Term: no later than 15 calendar days after the first official start date of classes for the session. If documentation is submitted after the deadline, the request for reclassification will be effective on the first day of the following term or summer term session. Residency reclassification is not retroactive to any prior terms.
* Refer to the U.S. Department of State and U.S. Citizen and Immigration Services for further information about determining your priority dates. As explained in those resources, a person's priority date is determined by the specific category of permanent residency applied for, and the country of chargeability (birth).
C. Military Affiliated Students

Qualifications. Individuals who meet at least one of the following qualifications are eligible for PA Resident status for tuition purposes:
Under the Commonwealth of Pennsylvania Statutes Title 24 (Education), Section 2509 (the "Act").

1. Any Veteran, their spouse, dependent children, or any other individual who is eligible to receive benefits under any of the following:
2. 10 U.S.C. Chapter 1606 Montgomery GI Bill® Selected Reserve
3. 38 U.S.C. Chapter 30 Montgomery GI Bill® Active Duty
4. 38 U.S.C. Chapter 31 Vocational Rehabilitation and Employment
5. 38 U.S.C. Chapter 33 Post-9/11 GI Bill®

In addition, a child, a spouse, or a surviving spouse who is eligible to receive benefits under Chapter 35 (relating to survivors' and dependents' educational assistance) qualifies for the PA Resident tuition rate.

For purposes of the Act, a "Veteran" is any individual who served in the United States Armed Forces, including a reserve component or National Guard, and who was discharged or released from service under conditions other than dishonorable.

If you meet any of the above-listed requirements, please provide a copy of the Service Member's DD214 and your Certificate of Eligibility from the VA to the Residency Coordinator at the Pittsburgh campus.
2. Military personnel who are assigned to an active duty station in Pennsylvania and who reside in Pennsylvania, and their spouses and dependent children. If you meet this requirement, please provide a copy, to the Residency Coordinator at the Pittsburgh campus, of the active duty member's orders and a copy of the first page of the most recent IRS Form 1040/1040A displaying the name of the spouse or dependent child, if applicable.
3. Civilian personnel employed at a US Department of Defense facility who are transferred to Pennsylvania by the US Department of Defense and who reside in Pennsylvania, and their spouses and dependent children. If you meet this requirement, please provide a letter, to the Residency Coordinator at the Pittsburgh campus, from the US Department of Defense that documents the transfer to Pennsylvania specifying the name of the person employed, the applicable US Department of Defense facility in Pennsylvania, and the start date, along with a copy of the first page of the most recent IRS Form 1040/1040A displaying the name of the spouse or dependent child, if applicable.

Under the Commonwealth of Pennsylvania Consolidated Statutes Title 51 (Military Affairs), Chapter 32:

1. Service Members of the Pennsylvania National Guard who are receiving the Education Assistance Program (EAP) Grant qualify for the resident tuition rate. Beginning academic year 2020-2021, PA National Guard members' spouses, surviving spouses, and children who are eligible for benefits under the Military Family Education Program (MFEP) also qualify for the resident tuition rate. If you meet these requirements, you will be reclassified to a Pennsylvania resident once you are an enrolled student and the financial aid office has been notified by the Pennsylvania Higher Education Assistance Agency that you have been awarded EAP or MFEP benefits.
Filing Deadlines. Military affiliated students should submit the documentation described in paragraph (1), (2), or (3) above to the PA Residency Coordinator at their campus to request reclassification by:

- Fall, Spring, and Summer Terms: no later than 30 calendar days after the first official day of classes for the term
- Summer session within the Summer Term: no later than 15 calendar days after the first official start date of classes for the session.
- date of classes for the session.

If documentation is submitted after the deadline, the request for reclassification will be effective on the first day of the following term or summer term session. Residency reclassification is not retroactive to any prior terms.

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

## V. Petitioning and Appealing to Overcome the 12 Month Requirement

A. Filing a Petition

Students whose initial residency classification is Non-Resident because they do not meet the 12 Month Requirement may complete the University's petition form and file it, together with supporting documentation, to the PA Residency Coordinator at their campus. Through the Petition Process and supporting documentation, the student must demonstrate that they:

1. Came to PA for reasons other than enrollment in an institution of higher education; and/or
2. Intend and are able to live in PA permanently or indefinitely upon completion of their academic studies.

Contact information for the PA Residency Coordinator at each campus, the petition form, and its filing instructions, are provided in Section IXResources, below.

Petition Deadlines. A student must submit their petition to the PA Residency Coordinator by:

- Fall, Spring, and Summer Terms: no later than 30 calendar days after the first official day of classes for the term.
- Summer session within the Summer Term: no later than 15 calendar days after the first official start date of classes for the session. Petitions Filed After the Deadline. A petition filed after the deadline will be considered for the following term or summer term session.

Request for Additional Documentation. If additional documentation and information is requested by the PA Residency Coordinator, it must be submitted within 15 days of the date requested. Otherwise, the petition will be denied for that term.

## B. Factors Considered

The following factors may be taken into consideration by the University when rendering a decision on a petition or appeal for reclassification. No required number of factors must be met, since each case is decided on the basis of the facts provided, the quality and reliability of the documentation submitted, and the student's intentions and actual ability to live permanently or indefinitely in PA.

- Payment of appropriate PA state and local taxes.
- Agreement for permanent, full-time employment in Pennsylvania.
- Lease or purchase of a permanent, independent residence in Pennsylvania by the student.
- Transfer of bank accounts, stocks, automobiles, and other registered property to Pennsylvania from another state.
- Membership in social, civic, political, athletic, and religious organizations located in Pennsylvania.
- Procurement of a Pennsylvania driver's license.
- Procurement of a Pennsylvania motor vehicle registration.
- Registration to vote in Pennsylvania
- A notarized statement by the student or their parent(s) or legal guardian(s) in the case of a minor declaring their intention to make Pennsylvania their residence either permanently or for an indefinite period of time.
- A notarized statement from the parent(s) or legal guardian(s) of a student under the age of 22 setting forth facts to establish the student's financial independence and separate residence. The student should provide financial documentation demonstrating the ability to fully and independently support themselves to substantiate this condition.
C. PA Residency Coordinator Decision

The PA Residency Coordinator will review the petition and supporting documentation, and then render a decision and provide written notification to the student.

If the petition was submitted by the deadline for the term, and the petition is approved, the residency reclassification will remain in effect going forward.

A petition filed after the deadline for a term, if approved, will be effective on the first day of the following term or summer term session. Reclassification is not retroactive to any prior terms.

If the petition is denied, the student has 30 days from the date of notice of denial to inform their PA Residency Coordinator in writing if they wish to appeal by appearing before the University Residency Appeals Committee (the Committee) as noted in Subsection D below. The PA Residency Coordinator will notify the Committee of the student's request.

## D. University Residency Appeals Committee

If a student properly files an appeal of the PA Residency Coordinator's decision, the student will be invited to the next regularly scheduled meeting of the Committee so the Committee can review the PA Residency Coordinator's decision. The student has the option to attend that meeting with the Committee to discuss their case and answer questions. After the meeting, the Committee will deliberate and render a final decision that will be provided to the student in writing. If the student wishes to be accompanied to the meeting by legal counsel, the attorney will be limited to observing and cannot participate in the meeting, nor respond to questions on behalf of the student.

If the initial petition form was submitted by the deadline, and the Committee approves the student's appeal, the effective beginning term of reclassification will be term in which the student filed the petition.

If the initial petition form was submitted after the deadline for a term, and the Committee approves the appeal, the effective beginning term of reclassification will be on first day of the following term or summer term session. Reclassification is not retroactive to any prior terms.

## VI. Notifications

1. When a student moves from Pennsylvania to another state they must give written notice to their campus PA Residency Coordinator.
2. When parents of a student under 22 years of age move, the student must give written notice of any change in their parent's/parents' or legal guardian's/legal guardians' address to their campus PA Residency Coordinator.

## VII. Adjustments and False Information

Students who are found eligible for in-state rates due to an error in classification are subject to retroactive reclassification as Non-Residents and are responsible for the payment of all related tuition and fees.

Students who are found eligible for in-state rates as a result of false or concealed facts are subject to University discipline and are responsible for the immediate payment of all Non-Resident tuition and fees. Failure to make payment in full may result in legal action and additional costs, including legal fees, court costs, and collection costs that may include an additional percentage of the total amount due to the University, if the unpaid account balance is assigned to a Collection Agency.

The University reserves the right to periodically audit and make any necessary adjustment in the classification of all students.
VIII. Governance or Responsibilities
A. Student

- Under 22, notifies the University of a change in residency of their parent(s) or legal guardian(s);
- Notifies the University of a change in their residency status;
- Files a petition with their campus PA Residency Coordinator, if they receive a Non-Resident classification; and
- Notifies their PA Residency Coordinator if they wish to file an appeal of a decision to deny their petition of a Non-Resident classification.
B. PA Residency Coordinator
- Reviews residency petitions and makes decisions on residency classification;
- Communicates results to the student as needed and when appropriate;
- Notifies the University Residency Appeals Committee of a student's appeal of the PA Residency Coordinator's decision on a petition; and
- Provides written notification to the student of the Committee's final decision, if the student has elected to have the Committee review the appeal.
C. University Residency Appeals Committee
- Reviews student appeals; and
- Provides final decisions on residency classification based on information provided during the review of the appeal.


## Tuition Rates and Mandatory Fees

## Undergraduate Cost of Attendance <br> Bradford Campus

Cost of Attendance includes Tuition, Mandatory Fees, and Other Estimated Expenses. Tuition and Mandatory Fees are the board-approved rates. Tuition and mandatory fees also apply to the summer term.

Costs charged to the student account include tuition and mandatory fees, on-campus housing, university meal plans, some course materials, and certain program-related fees. Examples of costs that are not charged to the student account are off-campus housing and food, misc. personal expenses, and transportation costs.

## Tuition Rates for Pennsylvania Residents

| School/College | Full-time, Two terms | Full-time per Term | Part-time per Credit |
| :--- | :--- | :--- | :--- |
| Bradford Campus (except for Nursing and Engineeing) | $\$ 13,660$ | $\$ 6,830$ | $\$ 569$ |
| Bradford: Nursing | $\$ 17,502$ | $\$ 8,751$ | $\$ 729$ |
| Bradford: Engineering | $\$ 15,838$ | $\$ 7,919$ | $\$ 659$ |

## Tuition Rates for Out-of-State Residents

| School/College | Full-time, Two terms | Full-time per Term | Part-time per Credit |
| :--- | :--- | :--- | :--- |
| Bradford Campus (except for Nursing and Engineering) | $\$ 25,534$ | $\$ 12,767$ | $\$ 1,063$ |
| Bradford: Nursing | $\$ 32,562$ | $\$ 16,281$ | $\$ 1,356$ |
| Bradford: Engineering |  |  |  |

## Mandatory Fees

| Fee Type | Full-time, Two terms | Full-time per Term | Part-time per Term |
| :--- | :--- | :--- | :--- |
| Student Activity Fee | $\$ 200$ | $\$ 100$ | $\$ 20$ |
| Wellness Fee | $\$ 150$ | $\$ 75$ | ---- |
| Computing and Network Services Fee | $\$ 350$ | $\$ 175$ | $\$ 100$ |
| Recreation Fee | $\$ 180$ | $\$ 90$ | $\$ 25$ |
| Parking and Transportation Fee | $\$ 80$ | $\$ 40$ | $\$ 20$ |
| TOTAL | $\$ 960$ | $\$ 480$ | $\$ 165$ |

*In summer term, only the Computing and Network Service fee applies. Tuition and Mandatory fees exhibited on the Tuition Rates and Fees website are subject to change without prior notice.

## Other Estimated Expenses (Living On or Off Campus)

| Fee Type | Full-time, <br> Two Terms | Full-time <br> per Term | Part-time |
| :--- | :--- | :--- | :--- | :--- |
| per Term |  |  |  |


| Housing | $\$ 7,232$ | $\$ 3,616$ | $\$ 3,616$ |
| :--- | :--- | :--- | :--- |
| Food | $\$ 6,106$ | $\$ 3,053$ | $\$ 3,053$ |
| Books \& Supplies | $\$ 750$ | $\$ 375$ | $\$ 375$ |
| Transportation | $\$ 2,690$ | $\$ 1,345$ | $\$ 1,009$ |
| Loan Fees | $\$ 80$ | $\$ 40$ | $\$ 40$ |
| Miscellaneous <br> Personal Expenses | $\$ 2,012$ | $\$ 1,006$ | $\$ 1,006$ |
| Total* | $\$ 18,870$ | $\$ 9,435$ | $\$ 9,099$ |

## Other Estimated Expenses (Living at Home)

| Fee Type | Full-time, <br> Two Terms | Full-time <br> per Term | Part-time <br> per Term |
| :--- | :--- | :--- | :--- |
| Housing | $\$ 7,232$ | $\$ 3,616$ | $\$ 3,616$ |
| Food | $\$ 6,106$ | $\$ 3,053$ | $\$ 3,053$ |
| Books \& Supplies | $\$ 750$ | $\$ 375$ | $\$ 375$ |
| Transportation | $\$ 2,690$ | $\$ 1,345$ | $\$ 1,009$ |
| Loan Fees | $\$ 80$ | $\$ 40$ | $\$ 40$ |
| Miscellaneous <br> Personal Expenses | $\$ 2,012$ | $\$ 1,006$ | $\$ 1,006$ |
| Total* | $\$ 18,870$ | $\$ 9,435$ | $\$ 9,099$ |

*The Other Estimated Expenses displayed are the same for PA and non-PA students. Your actual expenses may vary based on student choice, travel habits, and academic program.

## Room and Board Rates

| Room Options | 2023-2024 Academic Year |
| :--- | :--- |
| Double Room | $\$ 3,123 /$ term |
| Single Room | $\$ 3,739 /$ term |
| Freshman Hall Double Room | $\$ 3,230 /$ term |
| Garden Double Room | $\$ 3,176 /$ term |
| Double Private- 2 Person Suite | $\$ 3,782 /$ term |


| Double Private- 4 Person Suite | $\$ 3,531 /$ term |
| :--- | :--- |
| Double Private- 5 Person Suite | $\$ 3,606 /$ term |
| Summer Session | $\$ 150$ per week or Free * |
| *if certain eligibility requirents are met. See th following |  |

*if certain eligibility requirements are met. See the following link for more information.

| Resident Meal Plans | 2023-2024 Academic Year |
| :--- | :--- |
| 260 Block plus $\$ 200$ Flex (10 guest meals) | $\$ 2,243 /$ term |
| 260 Block (10 guest meals) | $\$ 2,043 / \mathrm{term}$ |
| 225 Block plus $\$ 300$ Flex (7 guest meals) | $\$ 2,260 /$ term |
| 225 Block (7 guest meals) | $\$ 1,960 /$ term |
| 195 Block plus $\$ 400$ Flex (5 guest meals) | $\$ 2,243 /$ term |
| 195 Block (5 guest meals) | $\$ 1,843 /$ term |
| * 145 Block plus \$500 Flex (2 guest meals) | $\$ 2,013 /$ term |
| * 145 Block (2 guest meal) | $\$ 1,513 /$ term |

* not available for freshmen

| Commuter/Faculty/Staff Meal Plans | 2023-2024 Academic Year |
| :--- | :--- |
| 75 Block plus $\$ 100$ Flex | $\$ 842 /$ term |
| 25 Block plus $\$ 75$ Flex | $\$ 352 /$ term |

## Due Date Schedule

## Notifications and Due Dates

Weekly Balance Due Notifications are sent by email and text to students and their Authorized Users from pittpay@pitt.edu when there is a balance due on the student account. To view and edit your email and mobile phone number settings for these notifications, login to PittPAY, select Actions, then Manage Notifications.

Please note, due dates provided here are for planning purposes. The due dates for future terms are estimates, and are subject to change. When balance due notifications begin for each new term, the official due date will be presented in PittPAY on the Account Summary and Account Activity tabs. The current due date is always provided on the Student Payment Center's homepage, as well.

| Term | Periodic Balance Due Notifications Begin: | Balance is Due: |
| :--- | :--- | :--- |
|  | April 19, 2023 | May 17, 2023 |


| Summer 2023 | May 17, 2023 | June 14, 2023 |
| :--- | :--- | :--- |
| Fall 2023 | July 26, 2023 | September 13, 2023 |
| Spring 2024 | November 15, 2023 | January 24, 2024 |

As soon as you make an online payment in PittPAY, your balance due will be updated to reflect the payment. You can view your payment receipt in Transaction History. Late fees, collection costs, and financial holds are placed on past due accounts.

If you prefer to make monthly payments, learn about the PittPAY Payment Plan. There is a deadline to enroll in a payment plan each term and you can take advantage of more monthly installments by enrolling in a plan early.

## Past Due Accounts \& Late Fees

Periodic notifications will be sent to students and their Authorized Users from pittpay@pitt.edu when there is a balance due on the student account. Late fees and financial holds are placed on past due accounts. In addition, accounts that remain seriously past due are referred to University Collections and may be assessed an additional $\$ 100$ Collection Fee.

A financial hold prevents registration for classes for a new term and prevents access to grades, transcripts, and diplomas. The hold is automatically released once the past due balance is paid in full.

Please note, dates provided here are for planning purposes. The dates for future terms are estimates, and are subject to change. When balance due notifications begin for each new term, the official due date will be presented in PittPAY on the Account Summary and Account Activity tabs. The current due date is always provided on the Student Payment Center's homepage, as well. Fees and Financial Holds are placed the day after the due date

| Term | Due Date | Fees and Financial Holds |
| :---: | :---: | :---: |
| Summer 2023 | $\begin{aligned} & \text { May } 17,2023 \\ & \text { June 14, } 2023 \end{aligned}$ | May 18, 2023 \& June 25, 2023 <br> $\$ 50$ late fee and financial hold. <br> June 15, 2023 \& July 13, 2023 <br> \$200 late fee and financial hold. <br> July 13, 2023 \& August 10, 2023 <br> Account is referred to University Collections and may be assessed $\$ 100$ Collections Fee |
| Fall 2023 | September 13, 2023 | September 14, 2023 <br> \$50 late fee and financial hold. <br> October 12, 2023 <br> \$200 late fee and financial hold. <br> November 9, 2023 <br> Account is referred to University Collections and may be assessed \$100 Collection Fee. |
| Spring 2024 | January 24, 2024 | January 25, 2024 <br> \$50 late fee and financial hold. <br> February 12, 2024 <br> \$200 late fee and financial hold. <br> March 21, 2024 <br> Account is referred to University Collections and may be assessed $\$ 100$ Collection Fee |

## Office of Academic Affairs

## Major

## Liberal Studies, AA

## Contact: Dr. Pamela Thompson

The Associate of Arts in Liberal Studies is the perfect program for you to enroll in and finally earn the college degree you have been thinking about for years. It's a great start on the way to a bachelor's degree, too. The liberal studies program provides incredible flexibility for moving on to a " 4 -year degree." Online and evening courses are available. Students may enroll part-time or fulltime.

## Degree Requirements

Competencies ( 12 credits)

- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- MATH 0098 - COLLEGE ALGEBRA 2 or higher level MATH course


## Arts and Letters (9 credits)

Must include at least one course in literature, and at least one course in the creative, fine, and performing arts

Literature (GE: Literature)
Creative, Fine, and Performing Arts (GE: Arts)
Second Languages (GE: Language)

## Behavioral, Economic, and Political Sciences (9 credits)

Courses must be selected from three different disciplines (e.g., sociology, psychology, political science) representing at least two different categories (e.g., behavioral science, economics, and political science).

Behavioral Sciences (GE: Behavioral Sciences)
Economics (GE: Economics)
Political Science (GE: Political Science)

## History, Culture, and Philosophical Inquiry (9 credits)

Must complete three courses. One must be a History, one must be either a Cultures or Philosophical Inquiry. Selections must include at least one Global category course.

History (GE: History)
Cultures (GE: Cultures)
Philosophical Inquiry (GE: Philosophy)

## Physical, Life, and Computational Sciences (10 credits)

Selections must include one course in physical sciences and one course in life sciences, one of which must have a lab.

Physical Sciences (GE: Physical Sciences)
Life Sciences (GE: Life Sciences)
Computational Sciences (GE: Computational Sciences)
General Electives (14 credits)

Choose any four or five courses.

## Total Credits to Graduate: 60 credits

## Suggested Course of Study

## First Year

- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- MATH 0098 - COLLEGE ALGEBRA 2

General education or elective courses - 24 Credits

## Second Year

General Education Electives 31 credits

# The Division of Behavioral and Social Sciences 

## Major

## Criminal Justice, BA

## Contact: Dr. Obinna Ezeihuoma

The criminal justice major is designed to foster a broadly based understanding of the diverse nature of crime and justice and its relationship with society, with an emphasis on the components of policing, courts, and corrections.. The program goes beyond the narrow, practicum-oriented criminal justice requirements of many colleges and universities, allowing students to also explore interdisciplinary connections with other fields of study.

Students must take 48 total credits in the major. Seven courses ( 21 credits) are required for all criminal justice majors.

## Degree Requirements

Course requirements in the major

- ADMJ 0101 - INTRO TO CRIMINAL JUSTICE
- ADMJ 0205 - POLICE AND SOCIETY: RACE, CRIME AND JUSTICE
- ADMJ 0206-CRIMINOLOGY
- ADMJ 1320 - RESEARCH METHODS IN CRIMINAL JUSTICE
- ADMJ 1321 - LAW AND SOCIAL CONTROL IN SOCIETY
- ADMJ 1451 - CAPSTONE: CRIMINAL JUSTICE
- ADMJ 1496 - FIELD PLACEMENT or
- ADMJ 1497 - DIRECTED STUDY: ADMINISTRATION OF JUSTICE

Note:
*An earned minimum grade of $C$ - is required in the above core courses.

## Other core requirements

choose three of the following four courses:

- SOC 0101 - INTRODUCTION TO SOCIOLOGY
- PS 0102 - AMERICAN POLITICAL PROCESS
- PS 0205 - LAW AND THE COURTS
- PSY 0101 - INTRODUCTION TO PSYCHOLOGY

Credits: 30

## Area Requirements

Students must take six additional courses ( 18 credits), including at least two from each of the three areas of study in criminal justice. At least three of the courses must be at the 1300/1400 level.

Law Enforcement

- ADMJ 0215 - LAW ENFORCEMENT OPERATIONS
- ADMJ 0230 - INTRO TO FORENSIC SCIENCE
- ADMJ 0255 - WHITE COLLAR CRIMES
- ADMJ 1302 - CRIMINAL LAW AND PROCEDURE
- ADMJ 1325-CRIMINAL EVIDENCE/INVESTIGATION
- ADMJ 1330 - CRIMINAL FORENSICS 1
- ADMJ 1331-CRIMINAL FORENSIC 1 LAB
- ADMJ 1401 - CONTEMPORARY ISSUES IN LAW ENFORCEMENT
- ADMJ 1430 - CRIMINAL FORENSICS 2
- ADMJ 1431 - CRIMINAL FORENSICS 2 LAB
- ADMJ 1447 - SPECIAL TOPICS IN POLICING
- ADMJ 1305 - MEDIA, CRIME \& THE CRIMINAL JUSTICE SYSTEM
- ADMJ 1306 - CRIME, JUSTICE, \& THE MENTALLY DISORDERED
- ADMJ 1404 - THE POLICING CULTURE: POLITICS, COMMUNITY \& ACCOUNTABILITY


## Corrections

- ADMJ 0102 - AMERICAN CORRECTIONS
- ADMJ 0203 - PROBATION AND PAROLE
- ADMJ 0240 - COMMUNITY-BASED CORRECTIONS
- ADMJ 1315 - MANAGEMENT AND SUPERVISION IN CRIMINAL JUSTICE
- ADMJ 1335-CONFLICT AND CRISIS MANAGEMENT
- ADMJ 1360 - REENTRY AND THE OFFENDER
- ADMJ 1365 - SUBSTANCE ABUSE AND TREATMENT IN THE COMMUNITY
- ADMJ 1370 - VICTIMOLOGY: CHILD ABUSE AND EXPLOITED CHILDREN
- ADMJ 1375 - JUVENILE CORRECTIONS AND TREATMENT ALTERNATIVES
- ADMJ 1402 - CONTEMPORARY ISSUES IN CORRECTIONS
- ADMJ 1405 - PSYCHOLOGY AND CRIME
- ADMJ 1435 - JUVENILES WHO MURDER
- ADMJ 1448 - SPECIAL TOPICS IN CORRECTIONS

Courts, Policy, and Justice

- ADMJ 0235 - TERRORISM IN A POST-9/11 WORLD
- ADMJ 0245 - ETHICS IN CRIMINAL JUSTICE
- ADMJ 0260 - VIOLENCE AND CRIME
- ADMJ 1304 - JUVENILE JUSTICE SYSTEM
- ADMJ 1310 - DRUGS, CRIME, AND SOCIAL POLICY
- ADMJ 1340 - GANGS: THEORY, PRACTICE, AND SUPPRESSION
- ADMJ 1345 - INTERNATIONAL AND GLOBAL CRIME
- ADMJ 1403 - CONTEMPORARY ISSUES IN COURTS, POLICY, JUSTICE
- ADMJ 1415 - ISLAM AND SOCIAL JUSTICE
- ADMJ 1449 - SPECIAL TOPICS IN COURTS
- ADMJ 1307-COMPARATIVE JUSTICE SYSTEMS

Total additional credits: 18
Total credits required for the major: 48
General Education Program Requirements and Electives-Variable

## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Suggested Course of Study

## First Year

- ENG 0101 - ENGLISH COMPOSITION 1
- FS 0104 - FIRST YEAR TRANSITION SEMINAR
- ENG 0102 - ENGLISH COMPOSITION 2
- MATH 0110 - FUNDAMENTALS OF MATHEMATICS
- ADMJ 0101 - INTRO TO CRIMINAL JUSTICE
- ADMJ 0206 - CRIMINOLOGY
- Choose SOC 101, PSY 101, PS 205 or PS 102
- ADMJ Lower level elective - 3 Credits
- ADMJ 0205 - POLICE AND SOCIETY: RACE, CRIME AND JUSTICE

Credits: 30

## Second Year

- ADMJ Lower level electives - 6 Credits
- General education or elective courses - 20 Credits
- Choose two more from the following: SOC 101, PSY 101, PS 205 or PS 102

Credits: 32

## Third Year

- ADMJ 1320 - RESEARCH METHODS IN CRIMINAL JUSTICE
- ADMJ 1321 - LAW AND SOCIAL CONTROL IN SOCIETY
- ADMJ 1451 - CAPSTONE: CRIMINAL JUSTICE
- ADMJ Upper level electives - 3 Credits
- General education or elective courses - 18 Credits

Credits: 30

## Fourth Year

- ADMJ Upper level electives - 12 Credits
- General education or elective courses - 13 Credits
- ADMJ 1496 - FIELD PLACEMENT or
- ADMJ 1497 - DIRECTED STUDY: ADMINISTRATION OF JUSTICE

Credits: 28

## Environmental Studies, BA

## Contact: Dr. Stephen Robar

Environmental studies is an interdisciplinary academic program that explores the relationships between humankind and its environment. Because the environment is complex and consists of many different environments, including the natural, constructed, and cultural environments, the environmental studies program fundamentally integrates the bodies of knowledge of the natural sciences, the social sciences, and the arts and humanities. A degree in environmental studies provides a comprehensive, interdisciplinary education that gives students the ability to analyze complex environmental problems and generate solutions.

Our environmental studies program focuses on:

- teaching students how to describe and analyze ecosystems;
- generating sound scientific understandings of biological, chemical, and geologic systems;
- evaluating the legal, political, and policy systems that impact ecosystems;
- appreciating the influence of artistic and literary explorations of the environment;

Note: Please visit the Environmental Studies Web page for more information on faculty and student research activities, internships, and the region in general.

## Degree Requirements

## Core Requirements:

- ENVSTD 0102 - INTRO TO ENVIRONMENTAL STUDIES
- BIOL 0118 - ECOLOGY AND ENVIRONMENTAL BIOLOGY or
- BIOL 0217 - PRINCIPLES OF ECOLOGY AND EVOLUTION
- CHEM 0106 - CHEMISTRY OF THE ENVIRONMENT
- ECON 0102 - INTRODUCTION TO MICROECONOMICS
- ECON 1307 - ECONOMICS OF ENERGY \& ENVIRONMNT
- ENG 0218 - INTRO TO LITERATURE \& ENVIRON
- ES 0112 - INTRODUCTION TO ENERGY SCIENCE AND TECHNOLOGY
- PHIL 1445 - ENVIRONMENTAL ETHICS
- PS 1367-ENVIRONMENTAL POLITICS or
- PS 1385-GLOBAL ENVIRONMENTAL POLITICS
- ENVSTD 1451 - CAPSTONE: ENVIRONMENTAL STUDIES
- GEOL 0109 - CONCEPTS IN GIS


## Three Lab sections:

Students must complete three lab sections in biology and/or chemistry approved by their advisor.
One course in statistics

One course in statistics, choose one of the following:

- PSY 0201 - STATISTICS
- MATH 0133 - STATISTICS
- ECON 0204 - STATISTICAL METHODS

Note:

Many of the courses in the core, as well as the electives, can be utilized to satisfy your general education requirements. You should consult with your primary advisor as soon as possible to set up a program of study.

## Environmental Studies Elective Requirements

In addition to the core requirements, five additional classes, two of which must be upper-level, must be taken from an approved list of environmental studies electives. You should consult with your advisor as to which classes would best serve your professional interests and career goals.

## Total Elective Credits: 15-20

## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Suggested Course of Study

## First Year

- ENG 0101 - ENGLISH COMPOSITION 1
- FS 0104 - FIRST YEAR TRANSITION SEMINAR
- ENG 0102 - ENGLISH COMPOSITION 2
- MATH 0098 - COLLEGE ALGEBRA 2 OR MATH 0110
- ES 0112 - INTRODUCTION TO ENERGY SCIENCE AND TECHNOLOGY
- ECON 0102 - INTRODUCTION TO MICROECONOMICS

General education or elective courses - 9 Credits

## Second Year

- ENG 0218 - INTRO TO LITERATURE \& ENVIRON
- BIOL 0118 - ECOLOGY AND ENVIRONMENTAL BIOLOGY
- CHEM 0106 - CHEMISTRY OF THE ENVIRONMENT
- CHEM 0107 - CHEMISTRY OF THE ENVRN - LAB
- ECON 1307 - ECONOMICS OF ENERGY \& ENVIRONMNT
- PS 1367 - ENVIRONMENTAL POLITICS

OR PS 1385
Lab requirement for major
ENVSTD elective

- GEOL 0109 - CONCEPTS IN GIS


## Third Year

- PHIL 1445 - ENVIRONMENTAL ETHICS
- MATH 0133 - STATISTICS

OR PSY 0201 or ECON 0204
ENVSTD elective 9 credits
General education or elective courses - 16 Credits

## Fourth Year

- ENVSTD 1451-CAPSTONE: ENVIRONMENTAL STUDIES

ENVSTD elective
General education or elective courses - 21 Credits
Lab requirement for major

## History/Political Science, BA

Contact: Dr. Drew Flanagan
The history/political science major offers students a foundation in two disciplines that study the institutions, the processes, the people, and the ideas and cultures that have shaped the United States and other countries. The study of history and political science develops insight into current affairs and into the possibilities and limitations of individual and public action.

The major prepares students for careers in journalism, teaching, or government service and for graduate study in business, history, law, political science, public policy, international affairs, and public administration.

Secondary teacher certification in social studies is available with the BA degree in history/political science.

## Degree Requirements

Course Requirements in the Major

- HIST 0106 - UNITED STATES HISTORY 1
- HIST 0107 - UNITED STATES HISTORY 2
- HIST 1449 - CAPSTONE 1: RESEARCH METHODS or
- PS 1449-CAPSTONE 1: RESEARCH METHODS
- HIST 1451 - CAPSTONE 2: HISTORY or
- HIST 1451 - CAPSTONE 2: HISTORY or
- PS 1451 - CAPSTONE 2: POLITICAL SCIENCE

Credits: 12

## Area Requirements in History

Two of the following courses ( 6 credits):

- HIST 0103 - EUROPE IN THE 18TH CENTURY
- HIST 0104 - EUROPE IN THE 19TH CENTURY
- HIST 0105 - EUROPE IN THE 20TH CENTURY
- HIST 0108 - MEDIEVAL EUROPE
- HIST 0109 - RENAISSANCE AND REFORMATION IN EUROPE
-History electives (three courses, including at least two at the $\mathbf{1 3 0 0}$ level or above) - $\mathbf{9}$ Credits

Total additional credits in history: 15

## Area Requirements in Political Science

Seven courses, including at least one course from each of the four sets of courses representing the four areas of study in political science, including at least two at the 1300/1400 level or above:

## American Government and Politics

- PS 0102 - AMERICAN POLITICAL PROCESS
- PS 0204 - PUBLIC POLICY PROCESS
- PS 0205 - LAW AND THE COURTS
- PS 0207 - CONGRESS AND THE PRESIDENCY
- PS 1310 - CONSTITUTIONAL LAW
- PS 1366 - PUBLIC POLICY ANALYSIS
- PS 1367 - ENVIRONMENTAL POLITICS


## Comparative Government and Politics

- PS 0103 - COMPARATIVE POLITICS
- PS 0220 - MEDIA AND INTERNET IN POLITICS
- PS 0225 - WOMEN IN POLITICS
- PS 1337 - IDENTITY POLITICS
- PS 1340 - DEMOCRATIZATION
- PS 1354 - LGBTQ POLITICS
- PS 1355 - POLITICS OF THE DEVELOPING WORLD


## International Politics

- PS 0110 - INTRODUCTION TO INTERNATIONAL AFFAIRS
- PS 0201 - WORLD POLITICS
- PS 0215 - EUROPEAN POLITICS AND EUROPEAN UNION
- PS 1304 - AMERICAN FOREIGN RELATIONS
- PS 1365 - SOCIAL MOVEMENTS
- PS 1385 - GLOBAL ENVIRONMENTAL POLITICS


## Political Theory

- PS 0202 - GREAT POLITICAL THINKERS
- PS 1307 - LIBRLSM, CONSERVATISM \& SOCLSM
- PS 1308-AMERICAN POLITICAL THOUGHT

Total additional credits in political science: 21

## Total credits required for the major: 48

## General Education Program Requirements and Electives-Variable

(See General Education Program and General Requirements for the Bachelor's Degree under Academic Policies and Guidelines for further details.)

## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Suggested Course of Study

## First Year

- HIST 0106 - UNITED STATES HISTORY 1
- HIST 0107 - UNITED STATES HISTORY 2
- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- MATH 0110 - FUNDAMENTALS OF MATHEMATICS
- Political science courses - 6 Credits
- General education or elective courses - 9 Credits
- FS 0104 - FIRST YEAR TRANSITION SEMINAR

Credits: 33

## Second Year

- History area requirement courses - 6 Credits
- Political science courses-6 Credits
- General education or elective courses - 19 Credits

Credits: 31

## Third Year

- HIST 1449-CAPSTONE 1: RESEARCH METHODS or PS 1449-CAPSTONE 1: RESEARCH METHODS
- History courses - 6 Credits
- Political science course - 3 Credits
- General education or elective courses - 24 Credits


## Fourth Year

- HIST 1451 - CAPSTONE 2: HISTORY OR
- PS 1451 - CAPSTONE 2: POLITICAL SCIENCE
- History Course - 3 Credits
- Political sciences course - 3 Credits
- General education or elective courses - 19 Credits

Credits: 28

Note:

Students seeking secondary teacher certification in social studies should meet with the director of teacher education each semester to plan out their course of study. Please refer to the section on Education Programs for further details.

## International Affairs, BA

Contact: Dr. Stephen Robar

The International Affairs major program integrates a strong foundation in political science and economics with interdisciplinary electives and foreign language study. Students are required to gain intercultural competency via an approved study abroad program or international field experience. International Affairs majors are encouraged to participate in applied service-learning, internship, and research experiences that are multicultural or international in scope. Students pursuing the International Affairs major may be interested in careers and graduate study in fields such as international affairs, international relations, comparative politics, public policy, diplomacy, global environmental policy, human rights, international law and organization, international business, international political economy, international development, peace and conflict resolution, international service, and international humanitarian relief.

## International Affairs Curriculum

## Core classes (24 credits):

- PS 0103 - COMPARATIVE POLITICS
- PS 0110 - INTRODUCTION TO INTERNATIONAL AFFAIRS
- PS 1307 - LIBRLSM, CONSERVATISM \& SOCLSM
- PS 1366 - PUBLIC POLICY ANALYSIS
- HIST 1317 - CONTEMPORARY US HISTORY 1941-PRESENT
- ECON 0102 - INTRODUCTION TO MICROECONOMICS
- ECON 0103 - INTRODUCTION TO MACROECONOMICS
- ECON 1301 - POVERTY AND SOCIETY


## Research Methods (3 or 4 credits):

- PS 1449 - CAPSTONE 1: RESEARCH METHODS or
- ECON 0204 - STATISTICAL METHODS


## Capstone Course (3 credits):

- PS 1451 - CAPSTONE 2: POLITICAL SCIENCE or
- ECON 1451 - CAPSTONE: ECONOMIC SYSTEMS

Electives in Comparative Government and Politics and International Politics (9 credits, at least two upper division):

- PS 0201 - WORLD POLITICS
- PS 0215 - EUROPEAN POLITICS AND EUROPEAN UNION
- PS 0220 - MEDIA AND INTERNET IN POLITICS
- PS 0225 - WOMEN IN POLITICS
- PS 1304 - AMERICAN FOREIGN RELATIONS
- PS 1337 - IDENTITY POLITICS
- PS 1340 - DEMOCRATIZATION
- PS 1354 - LGBTQ POLITICS
- PS 1355 - POLITICS OF THE DEVELOPING WORLD
- PS 1365-SOCIAL MOVEMENTS
- PS 1385 - GLOBAL ENVIRONMENTAL POLITICS

Electives in Economics, Finance, Management, or Marketing (9 credits, at least one upper division):

- ECON 0111 - MONEY IN THE REAL WORLD
- ECON 0112 - TOURISM or
- ANTH 0112 - TOURISM
- ECON 0201 - MONEY AND BANKING
- ECON 0203 - INTERNATIONAL FOOD SECURITY \& POLICY
- ECON 0206 - INTERMEDIATE MICROECONOMICS
- ECON 0207 - INTERMEDIATE MACROECONOMICS
- ECON 1307 - ECONOMICS OF ENERGY \& ENVIRONMNT
- FIN 1401 - INTERNATIONAL FINANCE
- MGMT 1305 - INTERNATIONAL MANAGEMENT
- MGMT 1449 - ECONOMIC SYSTEMS
- MRKT 1420 - INTERNATIONAL MARKETING

Interdisciplinary electives ( 9 credits, in at least two disciplines):
In addition to the core requirements, three additional classes must be taken in at least two disciplines. These courses must be selected from an approved list of interdisciplinary electives. Students should consult with their advisor as to which classes best serve their professional interests and career goals. Possible electives include:

- ADMJ 0235 - TERRORISM IN A POST-9/11 WORLD
- ADMJ 1307 - COMPARATIVE JUSTICE SYSTEMS
- ADMJ 1345 - INTERNATIONAL AND GLOBAL CRIME
- ADMJ 1415 - ISLAM AND SOCIAL JUSTICE
- AFRCNA 0101 - INTRODUCTION TO AFRICANA STUDIES
- ANTH 0101 - INTRODUCTION TO CULTURAL ANTHROPOLOGY
- ANTH 1305 - RELIGION AND CULTURE
- ANTH 1330 - ETHNIC AND TOURIST ARTS
- ANTH 1335 - GLOBALIZATION
- ART 0105 - WORLD ART: ANCIENT TO MEDIEVAL
- ART 0106 - WORLD ART: RENAISSANCE TO CONTEMPORARY
- CLP 0206 - HISPANIC LITERATURE (IN ENGLISH)
- CLP 0207 - SHORT FICTION IN SPANISH
- CLP 0216 - MODERN AFRICAN LITERATURE: THE NOVEL
- CLP 0220 - CARIBBEAN LITERATURES AND CULTURES
- CLP 0230 - MIDDLE EASTERN LITERATURES AND CULTURES
- CLP 1310 - POSTCOLONIAL LITERATURE
- CLP 1350 - LATINA WRITERS
- COMM 0120 - INTERCULTURAL COMMUNICATION
- COMM 0215 - BOLLYWOOD: POPULAR INDIAN CINEMA
- ENG 0105 - MASTERPIECES OF WORLD LITERATURE
- ENG 0201 - AMERICAN LIT BEFORE CIVIL WAR
- ENG 0202 - AMERICAN LIT SINCE THE CIVIL WAR
- ENG 0203 - BRITISH LITERATURE BEFORE 1800
- ENG 0204 - BRITISH LITERATURE SINCE 1800
- ENG 0214 - INTRO TO LITERATURE BY WOMEN
- ENG 0218 - INTRO TO LITERATURE \& ENVIRON
- ENG 1306-TWENTIETH-CENTURY IRISH LIT
- ENG 1308-20TH-CENTURY AMERICAN LIT
- ENVSTD 0102 - INTRO TO ENVIRONMENTAL STUDIES
- FR 0201 - INTERMEDIATE FRENCH 1
- FR 0202 - INTERMEDIATE FRENCH 2
- GEOG 0101 - WORLD REGIONAL GEOGRAPHY
- GSWS 0101 - INTRODUCTION TO GENDER, SEXUALITY, AND WOMEN'S STUDIES
- HIST 0104 - EUROPE IN THE 19TH CENTURY
- HIST 0105 - EUROPE IN THE 20TH CENTURY
- HIST 0107 - UNITED STATES HISTORY 2
- HIST 0202 - WORLD WAR I
- HIST 0206 - WORLD WAR II
- INTS 0112 - JAPANESE LANGUAGE AND CULTURE
- INTS 0115 - INTRODUCTION TO CHINESE CULTURE AND LANGUAGE
- INTS 0120 - INDIA AND ITS CULTURES
- INTS 0250 - SPECIAL TOPICS
- MUSIC 0109 - GLOBAL MUSIC SURVEY
- PHIL 0204 - PHILOSOPHY AND PUBLIC ISSUES
- PHIL 0215 - GREAT POLITICAL THINKERS
- PHIL 1303 - EASTERN PHILOSOPHY
- PHIL 1445 - ENVIRONMENTAL ETHICS
- PS 0202 - GREAT POLITICAL THINKERS
- SOC 0101 - INTRODUCTION TO SOCIOLOGY
- SOC 0201 - SOCIOLOGY OF GENDER
- SOC 0207 - SOCIOLOGY OF RACE AND ETHNICITY
- SOC 1316 - SOCIAL AND CULTURAL CHANGE
- SOC 1318 - SOCIOLOGY OF SEXUALITY
- SPAN 0201 - INTERMEDIATE SPANISH 1
- SPAN 0202 - INTERMEDIATE SPANISH 2
- SPAN 1308 - ADVANCED SPANISH

Intercultural Competency via Approved Study Abroad Program or International Field Experience (3 or more credits):

International Affairs majors are required to gain intercultural competency by participating in an approved study abroad program or international field experience. Students may study abroad during the fall, spring, or summer terms. If planning on studying abroad, students should consult with the Director of Study Abroad as well as their advisor in planning their course of study. In lieu of studying abroad, students may also participate in a directed research, directed study, or internship experience that is international in scope. Students should consult with their advisor as to which type of experience would meet this requirement and best serve their professional interests and career goals. Students are encouraged to complete major requirements while studying abroad.

## Foreign Language Study (0 to 6 credits):

International Affairs majors are required to gain foreign language competency in preparing for careers and graduate study in which foreign language competency is often used as a criterion in hiring and admissions decisions.

- This requirement can be met via any of the following credit-bearing options:
- 1 semester of language study during a study abroad program
- 2 semesters of elementary-level language study in one language
- 2 semesters of language study of two different languages ( 1 semester in each language)
- Student who has passed at least 1 semester of language study at the intermediate level or higher (students may also count such intermediate or advanced language courses as interdisciplinary electives for the International Affairs minor)
o This requirement can also be met via any of the following non-credit-bearing options, by permission of the program director:
- Bilingual student if testing in at intermediate level
- Student who has studied at a secondary-level institution or university outside the United States, in a non-English language


## Additional specialization:

Students are encouraged to select minors or a secondary major that complement their International Affairs curriculum and allow them to specialize further. This concentration will allow students to focus on particular themes, geographic regions, and disciplines. Students may double-count courses from the major, in secondary majors or minors. However, at least two courses must be unique to any minor (and may not be doublecounted). For double-majors, a unique capstone course must be taken in each major.

## Total Credits for Major: 60-67

Suggested Course of Study

## First Year

- PS 0103 - COMPARATIVE POLITICS
- PS 0110 - INTRODUCTION TO INTERNATIONAL AFFAIRS
- ECON 0102 - INTRODUCTION TO MICROECONOMICS
- ECON 0103 - INTRODUCTION TO MACROECONOMICS
- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- MATH 0110 - FUNDAMENTALS OF MATHEMATICS
- General education or elective courses, including two courses meeting interdisciplinary electives in International Affairs - 7 Credits
- FS 0104 - FIRST YEAR TRANSITION SEMINAR

Credits: 31

Second Year

- PS 1366 - PUBLIC POLICY ANALYSIS
- HIST 1317 - CONTEMPORARY US HISTORY 1941-PRESENT
- Foreign Language courses - 6 Credits
- Elective in Comparative/International Politics - 3 Credits
- Elective in Economics, Finance, Management, or Marketing - 3 Credits
- General education or elective courses, including one course meeting an interdisciplinary elective in International Affairs - 13 Credits

Credits: 31

## Third Year

- PS 1449 - CAPSTONE 1: RESEARCH METHODS OR
- ECON 0204 - STATISTICAL METHODS
- 
- PS 1307 - LIBRLSM, CONSERVATISM \& SOCLSM
- ECON 1301 - POVERTY AND SOCIETY
- Elective in Comparative/International Politics - 3 Credits
- Elective in Economics, Finance, Management, or Marketing - 3 Credits
- General education or elective courses - 15 Credits

Credits: 30

## Fourth Year

- PS 1451 - CAPSTONE 2: POLITICAL SCIENCE OR
- ECON 1451 - CAPSTONE: ECONOMIC SYSTEMS
- Elective in Comparative/International Politics - 3 Credits
- Elective in Economics, Finance, Management, or Marketing - 3 Credits
- Elective (and Intercultural Competency for International Affairs if student has not studied abroad) - 3 Credits
- General education or elective courses - 16 Credits

Credits: 28

Total Credits for Major: 60-67

## Psychology, BS

Contact: Dr. Greg Page
The psychology major at Pitt-Bradford is designed to reflect the diverse nature of psychology and the varied interests of psychologists. Students are required to take courses in different content areas of psychology to assure exposure to this diversity; however, there is also an opportunity for students to concentrate in an area of psychology of primary interest. The psychology major provides students with knowledge in the scientific and theoretical aspects of psychology in addition to an emphasis on the application of this knowledge.

The psychology major prepares students for graduate work in psychology and related disciplines and for employment in social service agencies, mental health centers, industries, and not-for-profit and governmental agencies.

## Degree Requirements

A C- or better is required in ALL Psychology Courses (49-50 Credits)

## Course Requirements in the Major

28 Credits

- PSY 0101 - INTRODUCTION TO PSYCHOLOGY
- PSY 0201 - STATISTICS
- PSY 0202 - CHILD DEVELOPMENT

OR

- PSY 0209 - LIFESPAN DEVELOPMENT
- PSY 0203 - SOCIAL PSYCHOLOGY OR
- PSY 0204 - PERSONALITY THEORIES
- PSY 0206 - ABNORMAL PSYCHOLOGY
- PSY 0207 - PROFESSIONAL SEMINAR IN PSYCHOLOGY
- PSY 0265 - DATA ANALYSIS AND RESEARCH WRITING
- PSY 1301 - EXPERIMENTAL PSYCHOLOGY
- PSY 1452 - CAPSTONE: PSYCHOLOGY


## Complete 7 three credit upper-level psychology courses (PSY 13xx or 14xx)

Note:

PSY 1303, PSY 1317, PSY 1405 , PSY 1407/PSY 1408 will not count as upper-level psychology courses in the Psychology Major if the courses are counted towards credits for completing a Counseling Psychology Minor.

## Other required courses

- COMM 0104 - PUBLIC SPEAKING or
- COMM 0115 - INTERPERSONAL COMMUNICATION


## General Psychology Electives

These can not be used to fulfill the 7 upper-level psychology courses for the psychology major.

- PSY 1496 - INTERNSHIP IN COUNSELING PSYCHOLOGY
- PSY 1497 - DIRECTED STUDY: PSYCHOLOGY
- PSY 1498 - DIRECTED RESEARCH: PSYCHOLOGY
- PSY 1499 - INTERNSHIP: PSYCHOLOGY


## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Suggested Course of Study

## First Year

- PSY 0101 - INTRODUCTION TO PSYCHOLOGY
- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- MATH 0098 - COLLEGE ALGEBRA 2 or
- MATH 0132 - PRECALCULUS
- PSY 0202 - CHILD DEVELOPMENT
- PSY 0204 - PERSONALITY THEORIES
- PSY 0206 - ABNORMAL PSYCHOLOGY
- General education or elective courses -9 Credits
- FS 0104 - FIRST YEAR TRANSITION SEMINAR


## Credits:33

Second Year

- PSY 0201 - STATISTICS
- PSY 0203 - SOCIAL PSYCHOLOGY
- PSY 0209 - LIFESPAN DEVELOPMENT
- COMM 0104 - PUBLIC SPEAKING or
- COMM 0115 - INTERPERSONAL COMMUNICATION
- PSY 0207 - PROFESSIONAL SEMINAR IN PSYCHOLOGY
- Psychology upper-level course

General Educ or minor credits-11

Credits: 24
Third Year

- PSY 0265 - DATA ANALYSIS AND RESEARCH WRITING
- PSY 1301 - EXPERIMENTAL PSYCHOLOGY
- Psychology upper-level courses - 9 Credits
- General education or minor courses - 18 Credits

Credits: 28

## Fourth Year

- PSY 1452 - CAPSTONE: PSYCHOLOGY
- Psychology upper-level elective 3 credits
- General education, electives or courses in minor - 22 Credits

Credits: 35

## Sociology, BA

## Contact: Dr. Kira Leck

Sociology is the study of social life and the social causes and consequences of human behavior. We examine urban and rural life, family patterns and gendered relationships, social change, race and ethnic relations, work and occupations, social stratification, the environment, health services, technology, communications, social movements, global issues, and deviance.

The Sociology Major will prepare you for work in social service and government agencies, community organizations, school systems, correctional facilities, industrial settings, public relations firms, or prepare you to go on for graduate studies in fields such as law, social work, higher education and public administration. The possibilities are endless, given the breadth, adaptability and utility of sociology.

## Degree Requirements

## Course requirements in the Major

- SOC 0101 - INTRODUCTION TO SOCIOLOGY
- SOC 1310 - SOCIOLOGICAL THEORY
- SOC 1401 - SOCIAL RESEARCH
- SOC 1451 - CAPSTONE: SOCIOLOGY


## Corequirements

- PSY 0101 - INTRODUCTION TO PSYCHOLOGY
- PSY 0201 - STATISTICS or
- ECON 0204 - STATISTICAL METHODS

Total core requirements: 19

## Area Requirements in Sociology

## The Individual in Society:

(2 courses - 1 must be upper-level)

- SOC 0204 - SOCIOLOGY OF DEVIANCE
- SOC 1302 - SOCIALIZATION
- SOC 1316 - SOCIAL AND CULTURAL CHANGE

Credits: 6

## Inequalities and Social Differences:

(2 courses - 1 must be upper-level)

- SOC 0201 - SOCIOLOGY OF GENDER
- SOC 0207 - SOCIOLOGY OF RACE AND ETHNICITY
- SOC 1308 - INEQUALITY IN SOCIETY
- SOC 1318 - SOCIOLOGY OF SEXUALITY
- SOC 1337 - IDENTITY POLITICS

Credits: 6

## Social Institutions:

(2 courses; 1 must be upper-level)

- SOC 0202 - SOCIOLOGY OF SPORT
- SOC 0206 - CRIMINOLOGY
- SOC 0235 - ENVIRONMENTAL SOCIOLOGY
- SOC 1301 - THE FAMILY
- SOC 1305-ORGANIZATIONAL BEHAVIOR
- SOC 1306 - WORK AND SOCIETY
- SOC 1307 - SOCIOLOGY OF HEALTH ILLNESS AND DISEASE
- SOC 1311 - SOCIAL WORK

Credits: 6

## Psychology:

(2 courses)

- PSY 0202 - CHILD DEVELOPMENT
- PSY 0203 - SOCIAL PSYCHOLOGY
- PSY 0206 - ABNORMAL PSYCHOLOGY

Credits: 6

Total Credits: 24

## Total credits required for the major: 43

## General Education Program Requirements and Electives-Variable

(See General Education Program and General Requirements for the Bachelor's Degree under Academic Policies and Guidelines for further details.)

## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Suggested Course of Study

## First Year

- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- MATH 0110 - FUNDAMENTALS OF MATHEMATICS
- PSY 0101 - INTRODUCTION TO PSYCHOLOGY
- SOC 0101 - INTRODUCTION TO SOCIOLOGY
- Sociology electives - 6 Credits
- General education or elective courses - 9 Credits
- FS 0104 - FIRST YEAR TRANSITION SEMINAR

Credits: 33

## Second Year

- PSY 0201 - STATISTICS or
- ECON 0204 - STATISTICAL METHODS
- Sociology elective - 3 Credits
- Psychology elective - 3 Credits
- General education or elective courses - 20 Credits

Credits: 30

Third Year

- SOC 1310 - SOCIOLOGICAL THEORY
- SOC 1401 - SOCIAL RESEARCH
- Sociology electives - 6 Credits
- Psychology elective - 3 Credits
- General education or elective courses - 15 Credits

Credits: 30

## Fourth Year

- SOC 1451 - CAPSTONE: SOCIOLOGY
- Sociology elective - 3 Credits
- General education or elective courses - 24 Credits

Credits: 30

Minor

# Administration of Justice Minor 

Contact: Dr. Obinna Ezeihuoma
Academic Division: Behavioral and Social Sciences
Program Description:

Our program goes beyond the narrow, practicum-oriented criminal justice requirements of many colleges and universities. We allow you to explore the connections with other disciplines, such as history, philosophy, political science, and sociology.

## Minor Requirements

A minor in Administration of Justice may be earned by completing the following requirements:

- ADMJ 0101 - INTRO TO CRIMINAL JUSTICE
- ADMJ 0205 - POLICE AND SOCIETY: RACE, CRIME AND JUSTICE
- ADMJ 0206 - CRIMINOLOGY
- Three upper-level criminal justice courses - 9 Credits


## Total credits required for the minor: 18

*An earned minimum grade of $C$ - is required in these courses

## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Anthropology Minor

## Contact: Dr. Warren Fass

Academic Division: Behavioral and Social Sciences

## Program Description:

You can earn a minor in anthropology by completing at least 15 credits. If you don't take the anthropology fieldwork course, you will need to enroll in an alternate course, which will need to be approved by your advisor, the Dean of Academic Affairs, and the anthropology faculty.

## Minor Requirements

Anthropology is one of the required areas of concentration in the human relations major. A minor in anthropology can be earned by satisfying the following requirements:

- ANTH 0101 - INTRODUCTION TO CULTURAL ANTHROPOLOGY
- ANTH 0230 - PRACTICING ANTHROPOLOGY
- Anthropology upper-level electives (three courses, all at the 1300 level or above) - 9 Credits


## Total Credits: 15

## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act

## Counseling Psychology Minor

Program Contact: Dr. Greg Page
Academic Division: Behavioral and Social Sciences

## Program Description:

A minor in counseling psychology can be earned by completing the requirements listed below. Please note that a minimum grade of C - or better is required for all courses. A student must earn a minimum overall 2.00 GPA in the minor.

## Minor Requirements

- PSY 0101 - INTRODUCTION TO PSYCHOLOGY
- PSY 0206-ABNORMAL PSYCHOLOGY
- PSY 1407 - COUNSELING PSYCHOLOGY
- PSY 1408-COUNSELING PSYCHOLOGY LAB
- PSY 1496 - INTERNSHIP IN COUNSELING PSYCHOLOGY
- SOC 0101 - INTRODUCTION TO SOCIOLOGY
- SOC 1311 - SOCIAL WORK

Note:

Psychology majors cannot use PSY 1407 and PSY 1408 to satisfy the counseling psychology content area or the applied focus area in their respective psychology major requirements.

Choose one of the Following:

- PSY 1303 - PSYCHOLOGICAL ASSESSMENT
- PSY 1317 - CHILDREN AND ADOLESCENT PSYCHOPATHOLOGY
- SOC 1301-THE FAMILY

Total Credits for Minor: 22

## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Criminal Forensic Studies Minor

Program Contact: Dr. Obinna Ezeihuoma

## Program Description:

A minor in criminal forensic studies is designed to provide students with a theoretical and applied understanding of the nature of criminal investigations and how forensic tools are used to conduct criminal investigations. Students will be exposed to variety of mock crime scenes, which will include violent crimes, property crimes, drug crimes, computer and white collar crimes. Students will also apply investigative report writing techniques and crime scene processing methods.

## Minor Requirements

A minor in criminal forensic studies can be earned by completing the following 20 credits:
(students must earn a C- or better in all minor courses and a GPA of 2.0 in the minor is required)

## Required courses:

- CIST 0161 - THE TECHNOLOGY OF COMPUTING
- ADMJ 0230 - INTRO TO FORENSIC SCIENCE
- ADMJ 1302 - CRIMINAL LAW AND PROCEDURE
- ADMJ 1325-CRIMINAL EVIDENCE/INVESTIGATION
- ADMJ 1330-CRIMINAL FORENSICS 1
- ADMJ 1331-CRIMINAL FORENSIC 1 LAB
- ADMJ 1430 - CRIMINAL FORENSICS 2
- ADMJ 1431 - CRIMINAL FORENSICS 2 LAB


## Students who are criminal justice majors cannot use the courses in the minor to satisfy the law enforcement content area of the criminal justice major.

## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act 33/34 clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Gender, Sexuality and Women's Studies Minor

Program Contact: Dr. Tracee Howell

## GSWS Administrative Council:

Dr. Tracee Howell, Program Coordinator
Dr. Helma de Vries-Jordan
Ms. Stephanie Eckstrom
Dr. Nancy McCabe
Academic Division: Behavioral and Social Sciences

## Program Description:

The GSWS minor is an interdisciplinary minor that critically examines the construction of gender identity and sexuality in both the U.S. and globally. The curriculum explores the impact of social, cultural, historic, economic, and political influences on identity, the fluidity of gender identity and
sexuality, and the intersections of gender identity and sexuality with other aspects of identity. It also seeks to raise awareness about the experiences, economic conditions, contributions, and human rights concerns of women and members of the LBGTQ community. Students are encouraged to participate in applied experiences such as service learning, internships, research, and study abroad, which expose them to gender identity and sexuality in multicultural and international contexts.

## Required course:

- GSWS 0101 - INTRODUCTION TO GENDER, SEXUALITY, AND WOMEN'S STUDIES


## Electives

Select five electives from the following list of approved courses. Courses selected must reflect at least two disciplines and include at least three at the upper-level.

- CLP 1315-CRITICAL METHODS
- CLP 1350 - LATINA WRITERS
- ENG 0201 - AMERICAN LIT BEFORE CIVIL WAR
- ENG 0202 - AMERICAN LIT SINCE THE CIVIL WAR
- ENG 0205 - INTRODUCTION TO SHAKESPEARE
- ENG 0214 - INTRO TO LITERATURE BY WOMEN
- ENG 1308-20TH-CENTURY AMERICAN LIT
- HIST 0216 - U.S. WOMEN'S HISTORY SINCE 1865
- NUR 1303 - WOMEN'S HEALTH ISSUES
- PHIL 0204 - PHILOSOPHY AND PUBLIC ISSUES
- PS 0225 - WOMEN IN POLITICS
- PS 1337 - IDENTITY POLITICS
- PS 1354 - LGBTQ POLITICS
- PS 1355 - POLITICS OF THE DEVELOPING WORLD
- PS 1365-SOCIAL MOVEMENTS
- PSY 1313 - PARENTING AND FAMILY
- PSY 1314 - PSYCHOLOGY OF GENDER \& SEXUALITY
- PSY 1335 - PSYCHOLOGY OF PREJUDICE AND DISCRIMINATION
- SOC 0201 - SOCIOLOGY OF GENDER
- SOC 0207 - SOCIOLOGY OF RACE AND ETHNICITY
- SOC 1301 - THE FAMILY
- SOC 1308 - INEQUALITY IN SOCIETY
- SOC 1318 - SOCIOLOGY OF SEXUALITY
- SOC 1337 - IDENTITY POLITICS
- THEA 0203 - PLAY ANALYSIS

Students may double-count courses from the major, in secondary majors or minors. However, at least two courses must be unique to the minor (and may not be double-counted). By permission of the program coordinator, students may apply to have directed study, directed research, and internships in a range of disciplines substituted as electives in the Gender, Sexuality, and Women's Studies minor. Further, the program coordinator will also evaluate coursework completed during study abroad in terms of course substitutions for the minor.

## Total Credits for Minor: 18

## History Minor

Program Contact: Dr. Drew Flanagan

## Program Description:

Do you like watching the History Channel or reading historical novels or biographies? Then a History Minor might be for you! When you pursue a History Minor, you'll study the history of the United States or Europe in the 18th, 19th and 20th centuries and have the opportunity to select elective courses focusing on your areas of interest.

## Minor Requirements

Students who major in any discipline other that history/political science may earn a minor in history by completing the following requirements:

## American or European History

- HIST 0106 - UNITED STATES HISTORY 1
- HIST 0107 - UNITED STATES HISTORY 2
or

Two of the following courses:

- HIST 0103 - EUROPE IN THE 18TH CENTURY
- HIST 0104 - EUROPE IN THE 19TH CENTURY
- HIST 0105 - EUROPE IN THE 20TH CENTURY
- HIST 0108 - MEDIEVAL EUROPE
- HIST 0109 - RENAISSANCE AND REFORMATION IN EUROPE
- In addition, take three history electives (at least two at the 1300 level or above) - 9 Credits


## Total Credits: 15

## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## International Affairs Minor

## Program Contact: Dr. Stephen Robar

Academic Division: Behavioral and Social Sciences

## Program Description

A minor in International Affairs will prepare you to live and work in our increasingly globalized community. The International Affairs minor integrates a strong foundation in political science and economics with interdisciplinary electives and foreign language study. Students are required to gain intercultural competency via an approved study abroad program or international field experience. International Affairs minors are encouraged to participate in applied service-learning, internship, and research experiences that are multicultural or international in scope. Students pursuing the

International Affairs minor may be interested in careers and graduate study in fields such as international affairs, international relations, comparative politics, public policy, diplomacy, global environmental policy, human rights, international law and organization, international business, international political economy, international development, peace and conflict resolution, international service, and international humanitarian relief.

Browse our Study Abroad web site.

## Overview of Program Requirements:

- PS 0103 - COMPARATIVE POLITICS
or
- PS 0110 - INTRODUCTION TO INTERNATIONAL AFFAIRS
- ECON 0102 - INTRODUCTION TO MICROECONOMICS
or
- ECON 0103 - INTRODUCTION TO MACROECONOMICS
- Electives in Comparative Government and Politics and International Politics (3-6 credits, at least one upper level)
- Electives in Economics, Finance, Management, or Marketing (3-6 credits, at least one upper level)
- Interdisciplinary Electives (3-6 credits)
- Intercultural Competency via Approved Study Abroad Program or International Field Experience (3 or more credits)
- Foreign Language Study (0-6 credits)


## Total credits for minor: 21

## Course Requirements for the Minor:

## Core classes (6 credits):

- PS 0103 - COMPARATIVE POLITICS
or
- PS 0110 - INTRODUCTION TO INTERNATIONAL AFFAIRS
- ECON 0102 - INTRODUCTION TO MICROECONOMICS or
- ECON 0103 - INTRODUCTION TO MACROECONOMICS

Electives in Comparative Government and Politics and International Politics (3-6 credits, at least one upper level):

- PS 0201 - WORLD POLITICS
- PS 0215 - EUROPEAN POLITICS AND EUROPEAN UNION
- PS 0220 - MEDIA AND INTERNET IN POLITICS
- PS 0225 - WOMEN IN POLITICS
- PS 1304 - AMERICAN FOREIGN RELATIONS
- PS 1337 - IDENTITY POLITICS
- PS 1340 - DEMOCRATIZATION
- PS 1354 - LGBTQ POLITICS
- PS 1355 - POLITICS OF THE DEVELOPING WORLD
- PS 1365 - SOCIAL MOVEMENTS

Electives in Economics, Finance, Management, or Marketing (3-6 credits, at least one upper level):

- ECON 0111 - MONEY IN THE REAL WORLD
- ECON 0112-TOURISM
- ECON 0201 - MONEY AND BANKING
- ECON 0203 - INTERNATIONAL FOOD SECURITY \& POLICY
- ECON 0206 - INTERMEDIATE MICROECONOMICS
- ECON 0207 - INTERMEDIATE MACROECONOMICS
- ECON 1301 - POVERTY AND SOCIETY
- ECON 1307 - ECONOMICS OF ENERGY \& ENVIRONMNT
- FIN 1401 - INTERNATIONAL FINANCE
- MGMT 1305-INTERNATIONAL MANAGEMENT
- MGMT 1449 - ECONOMIC SYSTEMS
- MRKT 1420 - INTERNATIONAL MARKETING


## Interdisciplinary Electives (3-6 credits):

- ADMJ 0235 - TERRORISM IN A POST-9/11 WORLD
- ADMJ 1307 - COMPARATIVE JUSTICE SYSTEMS
- ADMJ 1345 - INTERNATIONAL AND GLOBAL CRIME
- ADMJ 1415 - ISLAM AND SOCIAL JUSTICE
- AFRCNA 0101 - INTRODUCTION TO AFRICANA STUDIES
- ANTH 0101 - INTRODUCTION TO CULTURAL ANTHROPOLOGY
- ANTH 1305 - RELIGION AND CULTURE
- ANTH 1330 - ETHNIC AND TOURIST ARTS
- ANTH 1335 - GLOBALIZATION
- ART 0105 - WORLD ART: ANCIENT TO MEDIEVAL
- ART 0106 - WORLD ART: RENAISSANCE TO CONTEMPORARY
- CLP 0206 - HISPANIC LITERATURE (IN ENGLISH)
- CLP 0207 - SHORT FICTION IN SPANISH
- CLP 0216 - MODERN AFRICAN LITERATURE: THE NOVEL
- CLP 0220 - CARIBBEAN LITERATURES AND CULTURES
- CLP 0230 - MIDDLE EASTERN LITERATURES AND CULTURES
- CLP 1310 - POSTCOLONIAL LITERATURE
- CLP 1350 - LATINA WRITERS
- COMM 0120 - INTERCULTURAL COMMUNICATION
- COMM 0215 - BOLLYWOOD: POPULAR INDIAN CINEMA
- ENG 0105 - MASTERPIECES OF WORLD LITERATURE
- ENG 0201 - AMERICAN LIT BEFORE CIVIL WAR
- ENG 0202 - AMERICAN LIT SINCE THE CIVIL WAR
- ENG 0203 - BRITISH LITERATURE BEFORE 1800
- ENG 0204 - BRITISH LITERATURE SINCE 1800
- ENG 0214 - INTRO TO LITERATURE BY WOMEN
- ENG 0218 - INTRO TO LITERATURE \& ENVIRON
- ENG 1306-TWENTIETH-CENTURY IRISH LIT
- ENG 1308-20TH-CENTURY AMERICAN LIT
- ENVSTD 0102 - INTRO TO ENVIRONMENTAL STUDIES
- FR 0201 - INTERMEDIATE FRENCH 1
- FR 0202 - INTERMEDIATE FRENCH 2
- GEOG 0101 - WORLD REGIONAL GEOGRAPHY
- GSWS 0101 - INTRODUCTION TO GENDER, SEXUALITY, AND WOMEN'S STUDIES
- HIST 0104 - EUROPE IN THE 19TH CENTURY
- HIST 0105 - EUROPE IN THE 20TH CENTURY
- HIST 0107 - UNITED STATES HISTORY 2
- HIST 0202 - WORLD WAR I
- HIST 0206 - WORLD WAR II
- HIST 1317 - CONTEMPORARY US HISTORY 1941-PRESENT
- INTS 0112 - JAPANESE LANGUAGE AND CULTURE
- INTS 0115 - INTRODUCTION TO CHINESE CULTURE AND LANGUAGE
- INTS 0120 - INDIA AND ITS CULTURES
- INTS 0250 - SPECIAL TOPICS
- TOPICS IN INTERNATIONAL STUDIES - Upper level
- MUSIC 0109 - GLOBAL MUSIC SURVEY
- PHIL 0204 - PHILOSOPHY AND PUBLIC ISSUES
- PHIL 0215 - GREAT POLITICAL THINKERS
- PHIL 1303 - EASTERN PHILOSOPHY
- PHIL 1445 - ENVIRONMENTAL ETHICS
- PS 0202 - GREAT POLITICAL THINKERS
- PS 1307 - LIBRLSM, CONSERVATISM \& SOCLSM
- PS 1366 - PUBLIC POLICY ANALYSIS
- SOC 0101 - INTRODUCTION TO SOCIOLOGY
- SOC 0201 - SOCIOLOGY OF GENDER
- SOC 0207 - SOCIOLOGY OF RACE AND ETHNICITY
- SOC 1316 - SOCIAL AND CULTURAL CHANGE
- SOC 1318 - SOCIOLOGY OF SEXUALITY
- SPAN 0201 - INTERMEDIATE SPANISH 1
- SPAN 0202 - INTERMEDIATE SPANISH 2
- SPAN 1308-ADVANCED SPANISH


## Intercultural Competency via Approved Study Abroad Program or International Field Experience (3 or more credits):

International Affairs minors are required to gain intercultural competency by participating in an approved study abroad program or international field experience. Students may study abroad during the fall, spring, or summer terms. If planning on studying abroad, students should consult with the Director of Study Abroad as well as their advisor in planning their course of study. In lieu of studying abroad, students may also participate in a directed research, directed study, or internship experience that is international in scope. Students should consult with their advisor as to which type of experience would meet this requirement and best serve their professional interests and career goals. Students are encouraged to complete minor requirements while studying abroad.

## Foreign Language Study (0-6 credits):

International Affairs minors are required to gain foreign language competency in preparing for careers and graduate study in which foreign language competency is often used as a criterion in hiring and admissions decisions.

- This requirement can be met via any of the following credit-bearing options:
o 1 semester of language study during a study abroad program
o 2 semesters of elementary-level language study in one language
O 2 semesters of language study of two different languages (1 semester in each language) Student who has passed at least 1 semester of language study at the intermediate level or higher (students may also count such intermediate or advanced language courses as interdisciplinary electives for the International Affairs minor)
- This requirement can also be met via any of the following non-credit-bearing options, by permission of the program director:
o Student who has studied at a secondary-level institution or university outside the United States, in a non-English language


## Total Credits for Minor: 21

## Legal Studies Minor

Program Contact: Dr. Tony Gaskew

## Academic Division:

## Program Description:

A minor in legal studies is designed to provide students with an interdisciplinary understanding of the nature of law and crime, and how it's applied from a variety of pedagogical perspectives within the behavioral and social sciences.

## Minor Requirements

A minor in legal studies can be earned by completing the following 18 credits:
(students must earn a C- or better in all minor courses and a GPA of 2.0 in the minor is required)

## Required courses:

- PHIL 0204 - PHILOSOPHY AND PUBLIC ISSUES
- SOC 0204 - SOCIOLOGY OF DEVIANCE
- PS 0205 - LAW AND THE COURTS
- ADMJ 1321 - LAW AND SOCIAL CONTROL IN SOCIETY
- ADMJ 1302-CRIMINAL LAW AND PROCEDURE


## Select one elective from the following:

- PS 1310-CONSTITUTIONAL LAW
- ADMJ 1403 - CONTEMPORARY ISSUES IN COURTS, POLICY, JUSTICE
- PSY 1410 - PSYCHOLOGY AND LAW
- PHIL 1445 - ENVIRONMENTAL ETHICS


## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Political Science Minor

Program Contact: Dr. Stephen Robar
Academic Division: Behavioral and Social Sciences

## Program Description:

You can earn a minor in political science as long as you major in another discipline.

## Minor Requirements

Students who major in a discipline other than history/political science may earn a minor in political science by completing the following requirements:

- PS 0102 - AMERICAN POLITICAL PROCESS
- PS 0103 - COMPARATIVE POLITICS or
- PS 0110 - INTRODUCTION TO INTERNATIONAL AFFAIRS
- Three political science electives (at least two at the 1300 level or above) - 9 Credits


## Total Credits: 15

## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Psychology Minor

Program Contact: Dr. Warren Fass

Academic Division: Behavioral and Social Sciences

## Program Description:

Our psychology minor is designed to reflect the diverse nature of psychology and the varied interests of psychologists. You will take courses in different content areas of psychology so you can be exposed to this kind of diversity. However, you will also have to concentrate in an area of psychology that you're most interested in. Our psychology minor will provide you with knowledge in the scientific and theoretical aspects of psychology in addition to emphasizing the application of this knowledge.

## Minor Requirements

A grade of C - or better must be earned in each course under the minor.

- PSY 0101 - INTRODUCTION TO PSYCHOLOGY


## Choose 2 of the Following

- PSY 0202-CHILD DEVELOPMENT OR
- PSY 0209 - LIFESPAN DEVELOPMENT
- PSY 0203 - SOCIAL PSYCHOLOGY
- PSY 0204 - PERSONALITY THEORIES
- PSY 0206 - ABNORMAL PSYCHOLOGY
- Complete Three Upper-Level Psychology Electives - 9 Credits

Total Credits for Minor: 18

## Sociology Minor

Program Contact: Dr. Kira Leck
Academic Division: Behavioral and Social Sciences

## Minor Requirements

Students in any major can earn a minor in sociology by completing the following requirements:

- SOC 0101 - INTRODUCTION TO SOCIOLOGY
- PSY 0201 - STATISTICS

OR

- ECON 0204 - STATISTICAL METHODS
- SOC 1310 - SOCIOLOGICAL THEORY
- SOC 1401 - SOCIAL RESEARCH
- 6 credits Sociology Electives (two courses, one course must be upper level)

Total Credits: 19

## Transfer Program

## Pre-Law

Contact: Professor Stephen Robar
Students interested in earning a Doctor of Jurisprudence (JD) degree after completing a bachelor's degree at the University of Pittsburgh at Bradford may choose to major in any academic discipline. Before the second semester of their junior year, students should consult with the pre-law advisor or the Office of Career Services for specific information concerning law school admissions and the Law School Admissions Test (LSAT).

## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

# The Division of Biological and Health Sciences 

## Major

## Biology, BS

Contact: Dr. Denise Piechnik
The biology major prepares students for various careers in biology and for graduate or professional studies. Biology is a common entry point into the health sciences, including schools of medicine, dentistry, optometry, osteopathy, podiatry, chiropractic medicine, physical and occupational therapy, and veterinary medicine.

## Degree Requirements

Course requirements in the major

- BIOL 0101 - INTRODUCTION TO CELL AND MOLECULAR BIOLOGY
- BIOL 0102 - INTRODUCTION TO BIODIVERSITY

A grade of C- or better is required in BIOL 0101 and 0102

- BIOL 0203 - GENETICS
- BIOL 0217 - PRINCIPLES OF ECOLOGY AND EVOLUTION
- BIOL 1451 - CAPSTONE: BIOLOGY

Capstone is a two semester course (total of 4 credits)
BIOL Upper-level Biology Electives (two of which must include a lab). A maximum of 2 credits may be taken as BIOL 1499 Internship. 16 Credits

Other required courses

- CHEM 0101 - GENERAL CHEMISTRY 1
- CHEM 0102 - GENERAL CHEMISTRY 2
- CHEM 0206 - ORGANIC CHEMISTRY 1
- CHEM 0207-ORGANIC CHEMISTRY 1 LAB

The mathematic requirement may be satisfied by taking any one of the following:

- MATH 0132 - PRECALCULUS or
- MATH 0136-APPLIED CALCULUS or
- MATH 0140 - CALCULUS 1

The physics requirement may be satisfied by taking any of the following:

- PHYS 0101 - INTRODUCTION TO PHYSICS 1 or
- PHYS 0103 - CONCEPTS OF MODERN PHYSICS or
- PHYS 0201 - FOUNDATIONS OF PHYSICS 1

Total credits required for the major: 57-60

Students interested in applying to schools of chiropractic, dentistry/dental medicine, medicine, optometry, podiatry, and veterinary medicine must complete one year of Organic Chemistry with labs (CHEM 0206, 0207, 0208, and 0209); one year of General Physics with labs (PHYS 0101 and 0102 or 0201, 0202, 0203, and 0204); and one semester of Calculus (Math 0140).

## General Education Program Requirements and Electives-Variable

(See General Education Program and General Requirements for the Bachelor's Degree under Academic Policies and Guidelines for further details.)

## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Suggested Course of Study

## First Year

- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- BIOL 0101 - INTRODUCTION TO CELL AND MOLECULAR BIOLOGY
- BIOL 0102 - INTRODUCTION TO BIODIVERSITY
- CHEM 0101 - GENERAL CHEMISTRY 1
- CHEM 0102 - GENERAL CHEMISTRY 2
- General education requirement - 3-4 Credits
- Physical education requirement - 1 Credit


## Math option

- MATH 0132 - PRECALCULUS or
- MATH 0136 - APPLIED CALCULUS or
- MATH 0140 - CALCULUS 1

Credits: 29-31

## Second Year

- BIOL 0203 - GENETICS
- BIOL 0217 - PRINCIPLES OF ECOLOGY AND EVOLUTION
- CHEM 0206 - ORGANIC CHEMISTRY 1
- CHEM 0207-ORGANIC CHEMISTRY 1 LAB
- General education or elective courses - 18 Credits

Credits: 30

## Third Year

- Upper-level biology electives - 8 Credits
- General education or elective courses - 18-19 Credits


## Physics option

- PHYS 0101 - INTRODUCTION TO PHYSICS 1 or
- PHYS 0103 - CONCEPTS OF MODERN PHYSICS or
- PHYS 0201 - FOUNDATIONS OF PHYSICS 1

Credits: 29-31

## Fourth Year

- BIOL 1451 - CAPSTONE: BIOLOGY -4 credits
- Upper level Biology electives-8 credits
- General education or elective courses - 18-19 credits

Credits: 30-31

Note:

Students seeking secondary teacher certification in biology should meet with an advisor in biology each semester to plan their course of study in biology and with the director of teacher education each semester to plan their course of study in education. Please refer to the section on Education Programs for further details.

## Exercise Science, BS

## Contact: Dr. Mark Kelley

The Exercise Science major will prepare students to work as a professional in the health and fitness industry and will prepare students to be accepted and successful in a variety of graduate programs in the health care professions. These professions include physical therapy, occupational therapy, chiropractic, physician's assistant and medical doctor. Students will learn how to conduct fitness assessments, evaluate risks factors and health behaviors, develop and implement safe \& effective exercise prescriptions. The curriculum will provide a strong science base in anatomy \& physiology, exercise physiology, biomechanics, exercise prescription and assessment and working with special populations.

## Degree Requirements

Students may earn a major in exercise science by completing the following requirements. A minimum grade of C- or higher is required for all Exercise Science majors in EXSCI 1300 or higher courses:

- BIOL 0212 - HUMAN ANATOMY AND PHYSIOLOGY 1
- BIOL 0213 - HUMAN ANATOMY AND PHYSIOLOGY 2
- BIOL 0222 - HUMAN ANATOMY AND PHYSIOLOGY LAB 1
- BIOL 0223 - HUMAN ANATOMY AND PHYSIOLOGY LAB 2
- PSY 0101 - INTRODUCTION TO PSYCHOLOGY
- EXSCI 0102 - INTRODUCTION TO EXERCISE SCIENCE
- EXSCI 0108 - NUTRITION
- EXSCI 0215 - EXERCISE PSYCHOLOGY
- EXSCI 0216 - GROUP EXERCISE LEADERSHIP
- EXSCI 0204 - FIRST AID/CPR
- EXSCI 0225 - FUNCTIONAL HUMAN ANATOMY
- EXSCI 1305-BIOMECHANICS
- EXSCI 1306 - EXERCISE PHYSIOLOGY
- EXSCI 1320 - PRINCIPLES OF STRENGTH TRAINING AND CONDITIONING
- EXSCI 1405 - RESEARCH METHODS IN EXERCISE SCIENCE
- EXSCI 1410 - EXERCISE PRESCRIPTION
- EXSCI 1415 - ECG INTERPRETATION/STRESS TESTING
- EXSCI 1416-CLINICAL EXERCISE PHYSIOLOGY
- EXSCI 1430 - WORKSITE HEALTH PROMOTION
- EXSCI 1435 - EXERCISE ASSESSMENT
- EXSCI 1440 - EXERCISE PRESCRIPTION FOR SPECIAL POPULATIONS
- EXSCI 1453 - CAPSTONE: EXERCISE SCIENCE
- EXSCI 1499 - INTERNSHIP: EXERCISE SCIENCE

Total credits required for the major: 65

## General Education Program Requirements and Electives- Variable

(See General Education Program and General Requirements for the Bachelor's Degree under Academic Policies and Guidelines for further details.)

## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Suggested Course of Study

## First Year

Fall

- ENG 0101 - ENGLISH COMPOSITION 1
- FS 0104 - FIRST YEAR TRANSITION SEMINAR
- EXSCI 0102 - INTRODUCTION TO EXERCISE SCIENCE
- BIOL 0212 - HUMAN ANATOMY AND PHYSIOLOGY 1
- BIOL 0222 - HUMAN ANATOMY AND PHYSIOLOGY LAB 1
- MATH 0098 - COLLEGE ALGEBRA 2
- EXSCI 0109 - MEDICAL TERMINOLOGY

Total Credits: 16

## Spring

- ENG 0102 - ENGLISH COMPOSITION 2
- BIOL 0213 - HUMAN ANATOMY AND PHYSIOLOGY 2
- BIOL 0223 - HUMAN ANATOMY AND PHYSIOLOGY LAB 2
- EXSCI 0108 - NUTRITION
- Arts/Letters GE - 3 Credits
- Hist/Cult/Phil GE - 3 Credits

Total Credits: 16

## Second Year

Fall

- EXSCI 1306 - EXERCISE PHYSIOLOGY
- EXSCI 0216 - GROUP EXERCISE LEADERSHIP
- EXSCI 0204 - FIRST AID/CPR
- PSY 0101 - INTRODUCTION TO PSYCHOLOGY
- GE Electives - 4 Credits

Total Credits: 16
Spring

- EXSCI 0215 - EXERCISE PSYCHOLOGY
- EXSCI 0225 - FUNCTIONAL HUMAN ANATOMY
- EXSCI 1305-BIOMECHANICS
- Hist/Cult/Phil GE - 3 Credits
- GE Electives - 4 Credits

Total Credits: 15

Third Year

Fall

- EXSCI 1410 - EXERCISE PRESCRIPTION
- EXSCI 1435 - EXERCISE ASSESSMENT
- GE Electives - 4 Credits
- Hist/Cult/Phil GE - 3 Credits
- Arts/Letters GE - 3 Credits

Total Credits: 16

Spring

- EXSCI 1416-CLINICAL EXERCISE PHYSIOLOGY
- EXSCI 1320 - PRINCIPLES OF STRENGTH TRAINING AND CONDITIONING
- GE Electives - 6 Credits
- Arts/Letters GE - 3 Credits

Total Credits: 15

Fourth Year

## Fall

- EXSCI 1440 - EXERCISE PRESCRIPTION FOR SPECIAL POPULATIONS
- EXSCI 1405 - RESEARCH METHODS IN EXERCISE SCIENCE
- EXSCI 1415 - ECG INTERPRETATION/STRESS TESTING
- GE Electives - 6 Credits


## Total Credits: 15

## Spring

- EXSCI 1453 - CAPSTONE: EXERCISE SCIENCE
- EXSCI 1430 - WORKSITE HEALTH PROMOTION
- EXSCI 1499 - INTERNSHIP: EXERCISE SCIENCE
- GE Electives - 4 Credits
- Beh/Econ/PS GE - 3 Credits


## Total Credits: 16

## Nursing, AS

Contact: Dr. Jean Truman

The Unit in Nursing prepares professional nurses for entry to practice at the associate degree level and provides further education for the registered nurse at the more advanced baccalaureate level of practice. This includes advanced clinical skills and preparation for independent leadership and management roles in a variety of settings.

The Associate of Science in Nursing degree program is approved by the Commonwealth of Pennsylvania and accredited by ACEN - Accreditation Commission for Education in Nursing (formerly NLNAC).

Accreditation Commission for Education in Nursing (ACEN).

3390 Peachtree Road NE
Suite 1400 Atlanta, GA 30326
(404) 975-5000

The most recent accreditation decision made by the ACEN Board of Commissioners for the Associate of Science in Nursing program is Continuing Accreditation. View the public information disclosed by the ACEN regarding this program at http://www.acenursing.com/accreditedprograms/programsearch.htm

AS in Nursing graduates are required to take the national examination for registered nurse licensure. A person with criminal convictions may be prohibited from licensure as a registered nurse by the boards of nursing in various states. Prospective students in that situation should call the board of nursing in the state where they plan to practice.

## Degree Requirements

## Course Requirements in the Major

Students must attain a minimum grade of " C " in all required nursing courses and science cognate courses (BIOL 0202, BIOL 0212, BIOL 0213, BIOL 0222, BIOL 0223, and CHEM 0103), as well as a minimum grade of " $\mathrm{C}-$ " in all required General Education and elective courses.

- NUR 0106 - SUCCEEDING IN NURSING EDUCATION
- NUR 0109 - CLINICAL CALCULATIONS
- NUR 0111 - FUNDAMENTALS OF NURSING
- NUR 0112 - COMPREHENSIVE NURSING 1
- NUR 0113 - PHARMACOLOGY IN NURSING
- NUR 0211 - COMPREHENSIVE NURSING 2
- NUR 0212 - COMPREHENSIVE NURSING 3

Credits: 38

Required for some students:

- NUR 0100 - TRANSITION NURSING FOR LPNS

Other required courses:

- BIOL 0202 - MICROBIOL FOR ALLIED HEALTH PROFESSIONALS
- BIOL 0212 - HUMAN ANATOMY AND PHYSIOLOGY 1
- BIOL 0213 - HUMAN ANATOMY AND PHYSIOLOGY 2
- BIOL 0222 - HUMAN ANATOMY AND PHYSIOLOGY LAB 1
- BIOL 0223 - HUMAN ANATOMY AND PHYSIOLOGY LAB 2
- CHEM 0103 - BIOLOGICAL CHEMISTRY
- ENG 0101 - ENGLISH COMPOSITION 1
- PSY 0101 - INTRODUCTION TO PSYCHOLOGY

Human experience electives:
(choose 6 credits from two of the following three areas)
Arts and Letters; Behavioral, Economic, and Political Sciences; History, Cultures, and Philosophical Inquiry

Credits: 28

Minimum credits required for graduation: 66

## Suggested Course of Study

## First Year First Semester

- NUR 0109 - CLINICAL CALCULATIONS
- NUR 0111 - FUNDAMENTALS OF NURSING
- NUR 0106 - SUCCEEDING IN NURSING EDUCATION
- ENG 0101 - ENGLISH COMPOSITION 1
- BIOL 0212 - HUMAN ANATOMY AND PHYSIOLOGY 1
- BIOL 0222 - HUMAN ANATOMY AND PHYSIOLOGY LAB 1


## First Year Second Semester

- NUR 0112 - COMPREHENSIVE NURSING 1
- NUR 0113 - PHARMACOLOGY IN NURSING
- PSY 0101 - INTRODUCTION TO PSYCHOLOGY
- BIOL 0213 - HUMAN ANATOMY AND PHYSIOLOGY 2
- BIOL 0223 - HUMAN ANATOMY AND PHYSIOLOGY LAB 2

34 Credits

## Second Year First Semester

- NUR 0211 - COMPREHENSIVE NURSING 2
- CHEM 0103 - BIOLOGICAL CHEMISTRY
- Human experience electives - 3 Credits


## Second Year Second Semester

- NUR 0212 - COMPREHENSIVE NURSING 3
- BIOL 0202 - MICROBIOL FOR ALLIED HEALTH PROFESSIONALS

Human Experience Elective- 3 credits

32 Credits

## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse. Prospective students in that situation should contact the board of nursing in the state where they plan to practice.

## Transportation

Please note, that Pitt Bradford is located in rural Pennsylvania. Clinical experiences throughout the ASN and RN-BSN programs necessitate travel to agencies within and beyond the Bradford community in order to facilitate student's meeting program outcomes. When the student is enrolled in a course necessitating travel to community agencies, the student is responsible for providing their own transportation to and from the agency. Students are not permitted to travel in agency-employee-vehicles during clinical or observational experiences.

## Nursing, BSN

## Contact: Dr. Jean Truman

The Unit in Nursing prepares professional nurses for entry to practice at the associate degree level and provides further education for the registered nurse at the more advanced baccalaureate level of practice. This includes advanced clinical skills and preparation for independent leadership and management roles in a variety of settings.

The Associate of Science in Nursing degree program is approved by the Commonwealth of Pennsylvania and accredited by ACEN - Accreditation Commission for Education in Nursing (formerly NLNAC). The most recent accreditation decision made by the ACEN Board of Commissioners for the associate of science in nursing program is Continuing Accreditation. View the public information disclosed by the ACEN regarding this program at http://www.acenursing.com/accreditedprograms/programsearch.htm

The Bachelor of Science nursing program at the University of Pittsburgh at Bradford at the Bradford campus located in Bradford, PA is accredited by the:

Accreditation Commission for Education in Nursing (ACEN).
3390 Peachtree Road NE
Suite 1400 Atlanta, GA 30326
(404) 975-5000

The most recent accreditation decision made by the ACEN Board of Commissioners for the Bachelor of Science in nursing program is Continuing Accreditation.

## Admission Criteria

- Minimum cumulative Q.P.A. of 2.5 or above. Academic performance in prerequisite courses is an important component of admission decisions.
- Completion of 35 credits lower-level nursing courses (AS or Diploma) from an approved school.
- Current Pennsylvania RN license to practice nursing - PA-RN licensure must be maintained throughout the student's enrollment in the program.
- Completion of the following General Education credits listed below.

One of the following:

1. Graduation from an approved/accredited associate or diploma program within 3 years prior to consideration for admission to the RN-BSN Program.
2. Graduation from an approved associate or diploma program more than 3 years ago but with evidence of at least 1,000 hours nursing practice within 3 years prior to consideration for admission to the RN-BSN Program.

## General Education Minimum Prerequisites

A student must attain a minimum grade of " C " in all required science cognate courses, as well as a minimum grade of " C -" in all required General Education and elective courses.

- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- MATH 0110 - FUNDAMENTALS OF MATHEMATICS
- SOC 0101 - INTRODUCTION TO SOCIOLOGY
- PSY 0101 - INTRODUCTION TO PSYCHOLOGY
- ANTH 0101 - INTRODUCTION TO CULTURAL ANTHROPOLOGY
- BIOL 0212 - HUMAN ANATOMY AND PHYSIOLOGY 1
- BIOL 0222 - HUMAN ANATOMY AND PHYSIOLOGY LAB 1
- BIOL 0213 - HUMAN ANATOMY AND PHYSIOLOGY 2
- BIOL 0223 - HUMAN ANATOMY AND PHYSIOLOGY LAB 2
- BIOL 0202 - MICROBIOL FOR ALLIED HEALTH PROFESSIONALS
- CHEM 0103 - BIOLOGICAL CHEMISTRY


## Required Non-nursing Courses

Includes all General Education Program requirements with the exception of capstone and upper-level writing requirements. A grade of C or higher in BIOL 0202, BIOL 0212, BIOL 0213, BIOL 0222, BIOL 0223, and CHEM 0103 is required by the nursing program.

- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- MATH 0110 - FUNDAMENTALS OF MATHEMATICS
- PSY 0101 - INTRODUCTION TO PSYCHOLOGY
- SOC 0101 - INTRODUCTION TO SOCIOLOGY
- ANTH 1307 - POVERTY AND SOCIETY or
- ECON 1301 - POVERTY AND SOCIETY
- ANTH 1305 - RELIGION AND CULTURE or
- ANTH 0101 - INTRODUCTION TO CULTURAL ANTHROPOLOGY
- BIOL 0202 - MICROBIOL FOR ALLIED HEALTH PROFESSIONALS
- BIOL 0212 - HUMAN ANATOMY AND PHYSIOLOGY 1
- BIOL 0213 - HUMAN ANATOMY AND PHYSIOLOGY 2
- BIOL 0222 - HUMAN ANATOMY AND PHYSIOLOGY LAB 1
- BIOL 0223 - HUMAN ANATOMY AND PHYSIOLOGY LAB 2
- CHEM 0103-BIOLOGICAL CHEMISTRY
- Courses in GE: Arts and Letters - 9 Credits
- Course in GE: History - 3 Credits
- Course in GE: History, Cultures, or Philosophical Inquiry - 3 Credits


## Course in statistics

## 4 Credits

- MATH 0133 - STATISTICS
- PSY 0201 - STATISTICS
- ECON 0204 - STATISTICAL METHODS


## Required Nursing Courses

## Required Courses (degree completion track)

- NUR 1302 - PROFESSIONAL NURSING CONCEPTS
- NUR 1401 - INTRODUCTION TO NURSING RESEARCH
- NUR 1402 - HEALTH PROMOTION/HLTH ASSESSMENT
- NUR 1403 - ADVANCED CLINICAL PRACTICUM
- NUR 1404 - COMMUNITY HEALTH NURSING
- NUR 1451 - CAPSTONE: PROFESSIONAL NURSING
- NUR 1310 - ETHICAL DIMENSIONS OF PROFESSIONAL NURSING
- Upper level elective course* - 6 Credits

Note:
*a minimum of 3 credits must be designated to NUR

## Suggested Course of Study (full-time study, degree completion track)

## Term 1 (Fall)

- NUR 1302 - PROFESSIONAL NURSING CONCEPTS
- NUR 1401 - INTRODUCTION TO NURSING RESEARCH
- NUR 1402 - HEALTH PROMOTION/HLTH ASSESSMENT
- NUR 1404 - COMMUNITY HEALTH NURSING
- Upper level elective* - 3 Credits

Term 2 (Spring)

- NUR 1310 - ETHICAL DIMENSIONS OF PROFESSIONAL NURSING
- NUR 1403 - ADVANCED CLINICAL PRACTICUM
- NUR 1451 - CAPSTONE: PROFESSIONAL NURSING
- Upper level elective* - 3 Credits
- ECON 1301 - POVERTY AND SOCIETY

OR ANTH 1307 if not taken prev.

## Note:

*a minimum of 3 credits must be designated to NUR

# Suggested Course of Study BS in Nursing (part-time study, degree completion track) 

## Term 1 (Fall)

- NUR 1302 - PROFESSIONAL NURSING CONCEPTS
- NUR 1401 - INTRODUCTION TO NURSING RESEARCH
- Upper level elective* - 3 Credits


## Term 2 (Spring)

- NUR 1310 - ETHICAL DIMENSIONS OF PROFESSIONAL NURSING
- Upper level elective* - 3 Credits

Term 3 (Fall)

- NUR 1402 - HEALTH PROMOTION/HLTH ASSESSMENT
- NUR 1404 - COMMUNITY HEALTH NURSING


## Term 4 (Spring)

- NUR 1403 - ADVANCED CLINICAL PRACTICUM
- NUR 1451 - CAPSTONE: PROFESSIONAL NURSING


## Note:

*a minimum of 3 credits must be designated to NUR

## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse. Prospective students in that situation should contact the board of nursing in the state where they plan to practice.

## Transportation

Please note, that Pitt Bradford is located in rural Pennsylvania. Clinical experiences throughout the AS in Nursing and RN-BSN programs necessitate travel to agencies within and beyond the Bradford community in order to facilitate student's meeting program outcomes. When the student
is enrolled in a course necessitating travel to community agencies, the student is responsible for providing their own transportation to and from the agency. Students are not permitted to travel in agency-employee-vehicles during clinical or observational experiences.

## Pre-ASN

Program Contact: Dr. Jean Truman
The Pre-ASN curriculum is designed to prepare students for admission into the ASN nursing program. The recommended courses include the following:

## Recommended Courses

- ENG 0101 - ENGLISH COMPOSITION 1
- BIOL 0212 - HUMAN ANATOMY AND PHYSIOLOGY 1
- BIOL 0222 - HUMAN ANATOMY AND PHYSIOLOGY LAB 1
- BIOL 0213 - HUMAN ANATOMY AND PHYSIOLOGY 2
- BIOL 0223 - HUMAN ANATOMY AND PHYSIOLOGY LAB 2
- PSY 0101 - INTRODUCTION TO PSYCHOLOGY
- GE: Arts and Letters
- GE: History, Cultures, or Philosophical Inquiry
- CHEM 0089 Concepts of Chemistry may also be recommended

A grade of C or higher in BIOL 0202, BIOL 0212, BIOL 0213, BIOL 0222, BIOL 0223, and CHEM 0103 is required by the nursing program. There are additional admissions requirements for the AS Nursing program that can be found in the AS Nursing section.

## Pre-BSN

Program Contact: Dr. Jean Truman
The Pre-BSN curriculum is designed to prepare students for admission into the BSN nursing program. The recommended courses include the following:

## Recommended Courses

- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- MATH 0110 - FUNDAMENTALS OF MATHEMATICS
- FS 0102 - FIRST YEAR SEMINAR
- BIOL 0212 - HUMAN ANATOMY AND PHYSIOLOGY 1
- BIOL 0222 - HUMAN ANATOMY AND PHYSIOLOGY LAB 1
- BIOL 0213 - HUMAN ANATOMY AND PHYSIOLOGY 2
- BIOL 0223 - HUMAN ANATOMY AND PHYSIOLOGY LAB 2
- PSY 0101 - INTRODUCTION TO PSYCHOLOGY
- SOC 0101 - INTRODUCTION TO SOCIOLOGY
- GE: Arts and Letters
- GE: History, Cultures, or Philosophical Inquiry

A grade of C or higher in BIOL 0202, BIOL 0212, BIOL 0213, BIOL 0222, BIOL 0223, and CHEM 0103 is required by the nursing program. There are additional admissions requirements for the RN-BS Nursing program that can be found in the RN-BS Nursing section.

## Pre-Communication Science and Disorders

Program Contact: Dr. Mary Mulcahy
If you're considering a career in speech-language pathology or audiology, this undergraduate major provides the scientific foundation you'll need to pursue graduate school or clinical training.

A professional career in speech-language pathology or audiology requires graduate study (a two-year master's program) in an accredited program and completion of a clinical fellowship year.

Speech-language pathology and audiology are diverse fields with many opportunities to work in a variety of settings including schools, hospitals, universities, research institutes, industry, and private practice, and with a variety of populations ranging from infant to elderly.

An undergraduate major in communication science is also appropriate for graduate work in the neurosciences, speech and hearing sciences, healthrelated professions (including dentistry, medicine, and physician assistant studies) as well as graduate work in a range of education specializations such as special education, education of the deaf and hard of hearing, and early intervention.

See what you can do with a major in Communication Sciences and Disorders.

## Program Requirements

Students apply for admission to the communication science program in Pittsburgh after successful completion of at least 45 of the 60 required general education credits. Students may complete some of their required general education courses after they have relocated to the School of Health and Rehabilitation Sciences. There is no minimum grade requirement for each course, but students must earn a cumulative QPA of at least 2.50 . The required 60 general education credits should be distributed as follows:

- English Composition I
- English Composition II
- College Algebra II
- Foreign Language - minimum
- Statistics
- Literature
- Music or Art
- History
- Sociology
- Psychology
- Philosophy
- Physical Science
- Life Sciences
- Non-Western Cultures
- Political Science


## Additional Information

## Pitt Freshman Guarantee:

## Communication Science Disorders (speech pathology/audiology) Guarantee School of Health and Rehabilitation Sciences

- Indicate Pre-Communication Science on admissions application.
- Achieve a minimum SAT score of 1300 (old test) or 1360 (new test) combined Critical Reading and Math or 29 ACT.
- Complete the Bachelor of Arts degree at a regional campus with an overall grade point average (GPA) of 3.5 or higher, as well as a GPA of 3.5 or higher in the core pre-requisite courses for communication science disorders.
- Achieve minimum scores at the 50th percentile on the verbal and quantitative sections and a score of 3.5 or better on the analytical writing section of the Graduate Record Examination (GRE).
- Complete the CSD Centralized Application Service (CSDCAS) process as required.
- For information about the CSD graduate program, go to www.shrs.pitt.edu/macsd.


## Pre-Health and Rehabilitation Sciences

## Program Designation: Pre-Professional

Program Contact: Dr. Mark Kelley
The University of Pittsburgh at Bradford's Pre-Health \& Rehabilitation Sciences curriculum is a two-year course of study. Students typically earn 60 credits at Pitt-Bradford and apply directly to the University of Pittsburgh's Rehabilitation Science Program in the School of Health and Rehabilitation Sciences (SHRS) during the final semester at Pitt-Bradford.

## Program Requirements

The two-year program at the University of Pittsburgh at Bradford should include the following recommended prerequisite courses:

- BIOL 0101 - INTRODUCTION TO CELL AND MOLECULAR BIOLOGY
- BIOL 0102 - INTRODUCTION TO BIODIVERSITY
- CHEM 0101 - GENERAL CHEMISTRY 1
- CHEM 0102 - GENERAL CHEMISTRY 2
- MATH 0098 - COLLEGE ALGEBRA 2
- MATH 0133 - STATISTICS
- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- PSY 0101 - INTRODUCTION TO PSYCHOLOGY
- PHYS 0101 - INTRODUCTION TO PHYSICS 1
- PHYS 0102 - INTRODUCTION TO PHYSICS 2
- MIS 0103 - COMPUTER APPLICATIONS FOR MANAGEMENT


## Radiological Science, BS

Contact: Professor Mary Boser
Students may earn a bachelor's degree in radiological science after taking the required courses at Pitt-Bradford and successfully completing Bradford Regional Medical Center's (BRMC) two-year School of Radiography program. The two-year School of Radiography program has been provided by BRMC for many years to prepare certified professionals to work in clinical settings as radiographers. This new program will give students two ways to earn a bachelor's degree in radiological science, accommodating both incoming freshmen and those who have already completed BRMC's program.

The main track is what we call a $2+2$ program: Students complete four full semesters (during the freshman and sophomore years) of course work on the Pitt-Bradford campus. Then during the third and fourth years, students pursue full-time study at BRMC's School of Radiography. Students must have a minimum of 2.5 or higher GPA to be considered for admission to the major at Bradford Regional Medical Center.

The second option is available to those people already certified and employed in radiography and who have graduated from a program accredited by the Joint Review Committee on Education in Radiological Technology such as the one at BRMC. These students attend Pitt-Bradford for two years of full-time study or its equivalent in part-time study to earn a bachelor's degree.

In both options, 50 academic credits from the accredited radiographic program are applied toward the 120 credits needed to graduate from PittBradford with a bachelor's degree.

Progression Requirements and Admission to the Radiological Science Major

Students admitted to this program start their studies at the university as a Pre-Radiological Science major, taking courses that meet university graduation requirements. At the end of the first year of study, a student should have a 3.0 GPA or better to progress to the second year, which must be maintained throughout the entire second year of studies. During the spring term of the sophomore year, students apply to BRMC for admission into the School of Radiography. The deadline for applications is Feb. 1. To be admitted to the school, a student must be in good academic standing at the university. Because of limited numbers of openings at BRMC in any given year, preference for admission is given to students who have performed well academically. In the past, this has meant that in general, students with a 3.0 or better GPA who have satisfied all course requirements (with special attention paid to performance in the "core courses") at the university have been admitted. This may vary from year to year, however, depending on the number of applicants who apply for the available openings (currently up to 16 openings each year).

## Required general education courses include:

- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- FS 0102 - FIRST YEAR SEMINAR
- WRITNG 1305 - TECHNICAL WRITING
- MATH 0110 - FUNDAMENTALS OF MATHEMATICS
- Arts and Letters three courses * - 9 Credits
- SOC 0101 - INTRODUCTION TO SOCIOLOGY *
- PSY 0101 - INTRODUCTION TO PSYCHOLOGY *
- Economics or Political Science-one course* - 3 Credits
- History-one course * 3 Credits
- PHIL 0214 - BIOETHICS
- History, Cultures, and Philosophical Inquiry-one course*
- BIOL 0212 - HUMAN ANATOMY AND PHYSIOLOGY 1
- BIOL 0213 - HUMAN ANATOMY AND PHYSIOLOGY 2
- BIOL 0222 - HUMAN ANATOMY AND PHYSIOLOGY LAB 1
- BIOL 0223 - HUMAN ANATOMY AND PHYSIOLOGY LAB 2
- PHYS 0103 - CONCEPTS OF MODERN PHYSICS
- PEDC - Physical Education - 1 Credit
- RADSC 1451 - CAPSTONE: RADTN SCI


## Others:

- RADSC 0111 - BASIC HUMAN NEEDS
- Electives (6 upper level credits) - 6 Credits

Note:

* Challenge examinations and CLEP options available for select courses.


## Required radiological science courses include:

Introduction to Radiological Technology and Medical Ethics<br>Medical Terminology<br>Elementary Radiation Protection<br>Radiographic Anatomy<br>Radiographic Physics<br>Radiographic Procedures I<br>Methods of Patient Care<br>Radiographic Procedures II<br>Radiation Protection II<br>Radiographic Film Evaluation I

Radiographic Film Processing
Radiographic Pathology
Radiographic Exposures
Film Evaluation II
Radiographic Procedures III
Special Equipment and Maintenance
Radiation Biology
Radiographic Film Evaluation III
Department Administrative Technique
Radiographic Film Evaluation IV
Clinical Experience
Clinical Review

## Suggested Course of Study

## First Year

Fall Semester

- ENG 0101 - ENGLISH COMPOSITION 1
- BIOL 0212 - HUMAN ANATOMY AND PHYSIOLOGY 1
- BIOL 0222 - HUMAN ANATOMY AND PHYSIOLOGY LAB 1
- MATH 0110 - FUNDAMENTALS OF MATHEMATICS
- PSY 0101 - INTRODUCTION TO PSYCHOLOGY
- PEDC - Elective - 1 Credit
- FS 0104 - FIRST YEAR TRANSITION SEMINAR

Spring Semester

- ENG 0102 - ENGLISH COMPOSITION 2
- BIOL 0213 - HUMAN ANATOMY AND PHYSIOLOGY 2
- BIOL 0223 - HUMAN ANATOMY AND PHYSIOLOGY LAB 2
- PHYS 0103 - CONCEPTS OF MODERN PHYSICS
- Electives - 6 Credits


## Second Year

## Fall Semester

- RADSC 0111 - BASIC HUMAN NEEDS
- SOC 0101 - INTRODUCTION TO SOCIOLOGY
- Electives - 7 Credits


## Spring Semester

- PHIL 0214 - BIOETHICS
- WRITNG 1305-TECHNICAL WRITING
- Electives (6 credits upper level) - 12 Credits


## Third Year: BRMC

## Fall Semester

- Introduction to Radiologic Technology and Medical Ethics
- Medical Terminology
- Elementary Radiation Protection
- Radiographic Anatomy \& Physiology
- Radiographic Physics
- Radiographic Procedures I
- Radiographic Image Evaluation I
- Clinical Experience


## Spring Semester

- Radiographic Procedures II
- Radiation Protection II
- Radiographic Film Evaluation I
- Radiographic Film Processing
- Radiographic Pathology
- Radiographic Exposures
- Clinical Experience


## Summer Semester

- Clinical Experience


## Fourth Year: BRMC

## Fall Semester

- Radiographic Procedures III
- Special Equipment and Maintenance
- Clinical Experience
- Radiographic Image Evaluation II
- CT Instrumentation and Physics
- Senior Project Planning
- RADSC 1451 - CAPSTONE: RADTN SCI


## Spring Semester

- Radiation Biology
- CT Anatomy \& Physiology
- Radiographic Film Evaluation III, IV
- Department Administrative Technique
- Clinical Experience


## Summer Semester

- General Review
- Clinical Experience


## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Minor

## Biology Minor

Program Contact: Dr. David Merwine
Academic Division: Biological and Health Sciences

## Program Description:

Our minor in biology serves as an excellent complement to a number of fields in and out of the sciences.

## Minor Requirements

A minor in biology can be earned by completing the following requirements:

- BIOL 0101 - INTRODUCTION TO CELL AND MOLECULAR BIOLOGY
- BIOL 0102 - INTRODUCTION TO BIODIVERSITY
- Upper level Biology electives (7cr)


## Also select one of the following:

- BIOL 0203 - GENETICS
- BIOL 0217 - PRINCIPLES OF ECOLOGY AND EVOLUTION
- BIOL 0212 - HUMAN ANATOMY AND PHYSIOLOGY 1 This course and BIOL 0222 are taken together.
- BIOL 0222 - HUMAN ANATOMY AND PHYSIOLOGY LAB 1


## Total Credits: 19

## Exercise Science Minor

Program Contact: Dr. Mark Kelley
Academic Division: Biological and Health Sciences

## Program Description:

This minor aims to introduce students to the physiological and bio-mechanical aspects of human function in response to exercise and physical activity.

## Minor Requirements

- HPRED 0209 - PERSONAL HEALTH AND WELLNESS
- EXSCI 0102 - INTRODUCTION TO EXERCISE SCIENCE
- EXSCI 0108 - NUTRITION
- EXSCI 0225 - FUNCTIONAL HUMAN ANATOMY
- EXSCI 1306 - EXERCISE PHYSIOLOGY
- EXSCI 1320 - PRINCIPLES OF STRENGTH TRAINING AND CONDITIONING
- EXSCI 1416-CLINICAL EXERCISE PHYSIOLOGY


## Total Credits: 22

## Transfer Program

## Pre-Chiropractic

Contact: Dr. Robin Choo

Students interested in earning a Doctor of Chiropractic (DC) degree must complete a minimum of 60, 75 , or 90 (depending on the school) credits with a minimum cumulative 2.25 grade point average at the University of Pittsburgh at Bradford before applying to a chiropractic college. Most students attending chiropractic colleges have earned a baccalaureate degree in biology prior to admittance. Each professional school may have specific requirements, in addition to the minimum courses required by all chiropractic colleges, so students are advised to check with the chiropractic schools of their choice prior to completing their bachelor's degree.

## Transfer Program Requirements

Minimum prerequisites, which must be completed include the following:

- BIOL 0101 - INTRODUCTION TO CELL AND MOLECULAR BIOLOGY
- BIOL 0102 - INTRODUCTION TO BIODIVERSITY
- CHEM 0101 - GENERAL CHEMISTRY 1
- CHEM 0102 - GENERAL CHEMISTRY 2
- CHEM 0206 - ORGANIC CHEMISTRY 1
- CHEM 0207 - ORGANIC CHEMISTRY 1 LAB
- CHEM 0208 - ORGANIC CHEMISTRY 2
- CHEM 0209 - ORGANIC CHEMISTRY 2 LAB
- PHYS 0101 - INTRODUCTION TO PHYSICS 1
- PHYS 0102 - INTRODUCTION TO PHYSICS 2
- PHYS 0201 - FOUNDATIONS OF PHYSICS 1
- PHYS 0202 - FOUNDATIONS OF PHYSICS 2
- PHYS 0203 - FOUNDATIONS OF PHYSICS 1 LAB
- PHYS 0204 - FOUNDATIONS OF PHYSICS 2 LAB
- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- PSY 0101 - INTRODUCTION TO PSYCHOLOGY


## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become
licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Pre-Dental Medicine

Contact: Dr. Mary Mulcahy or Dr. David Merwine

The University of Pittsburgh at Bradford and the University of Pittsburgh School of Dental Medicine in Pittsburgh have an articulation agreement that allows students to be admitted to the School of Dental Medicine after completing three or four years of study with a minimum of 90 credits earned at the University of Pittsburgh at Bradford.

## Transfer Program Requirements

To be eligible for dental school admission, students must meet stringent requirements as follows:

## 1. For admission to Pitt-Bradford a student must:

- Complete at least 18 college prep courses with four units each in English, social studies, mathematics, science with lab, and two units in second language.
- Rank in the upper 20 percent of the high school graduating class.
- Score 1100 or higher on the pre-2005 SAT, with a score of at least 560 in the SAT quantitative section; or 24 or higher on the ACT, with a 24 on the quantitative section.
- Complete an application for admission, supplemented by a detailed personal statement concerning a career in dentistry and two letters of reference from high school teachers or counselors.
- Receive a favorable recommendation from the Pitt-Bradford Health Related Professions Committee.


## 2. Meet the following standards while earning 90 or more credits at Pitt-Bradford:

- Achieve a 3.00 grade point average (GPA) at the end of the first year of study.
- Achieve a major and cumulative GPA of 3.25 at the end of the second and third years of study.
- Complete other Pitt-Bradford course requirements for general education and a major in an approved baccalaureate degree. (During a student's first term of enrollment, in consultation with an advisor, the course requirements will be detailed for the student, based on the student's intended major.)
- Compile a consistent record of participation and leadership in campus affairs.
- Demonstrate interest in dentistry by observing or working in a dental environment
- Be recommended by the vice president and dean of academic affairs and the Health Related Professions Committee at Pitt-Bradford.

Complete and receive a 3.00 GPA in the following courses:

- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- BIOL 0101 - INTRODUCTION TO CELL AND MOLECULAR BIOLOGY
- BIOL 0102 - INTRODUCTION TO BIODIVERSITY
- CHEM 0101 - GENERAL CHEMISTRY 1
- CHEM 0102 - GENERAL CHEMISTRY 2
- CHEM 0206 - ORGANIC CHEMISTRY 1
- CHEM 0207 - ORGANIC CHEMISTRY 1 LAB
- CHEM 0208 - ORGANIC CHEMISTRY 2
- CHEM 0209- ORGANIC CHEMISTRY 2 LAB
- PHYS 0101 - INTRODUCTION TO PHYSICS 1
- PHYS 0102 - INTRODUCTION TO PHYSICS 2
- PHYS 0201 - FOUNDATIONS OF PHYSICS 1
- PHYS 0202 - FOUNDATIONS OF PHYSICS 2
- PHYS 0203 - FOUNDATIONS OF PHYSICS 1 LAB
- PHYS 0204 - FOUNDATIONS OF PHYSICS 2 LAB


## 3. Attain Dental Aptitude Test (DAT) scores acceptable to the dental school.

Students who withdraw from this special program are eligible to apply, without prejudice, directly to the School of Dental Medicine under the prevailing admission requirements and standards.

## University of Pittsburgh Freshman Guarantee for School of Dental Medicine

- Indicate PDENT Pre-Dentistry on admissions application,
- Rank in the top 5 percent of high school class with a pre-2005 SAT I score of 1300 ( 29 ACT ) or better,
- Maintain a 4.0 science and general grade point average as a full-time student,
- Complete the minimum coursework required of pre-dental students,
- Attain an overall DAT (Dental Aptitude Test) score of 25,
- Complete the AADSAS application process,
- Participate in a satisfactory preadmission interview prior to School of Dental Medicine admission.


## Pre-Emergency Medicine

Contact: Dr. David Merwine

The pre-emergency medicine curriculum is a two-year course of study at the University of Pittsburgh at Bradford. Upon completion of a minimum of 60 credits at the University of Pittsburgh at Bradford, students must apply to the emergency medicine program in the School of Health and Rehabilitation Sciences (SHRS) at the University of Pittsburgh. Students accepted into the University of Pittsburgh's emergency medicine Bachelor of Science program will need to take four credits of EMT with lab, which is not offered by the University of Pittsburgh at Bradford, prior to continuation of their degree program at the University of Pittsburgh SHRS.

## Transfer Program Requirements

Students are admitted into the emergency medicine program after successful completion of a minimum of 60 college credits, including the following prerequisite courses:

- BIOL 0102 - INTRODUCTION TO BIODIVERSITY
- BIOL 0202 - MICROBIOL FOR ALLIED HEALTH PROFESSIONALS
- BIOL 0212 - HUMAN ANATOMY AND PHYSIOLOGY 1
- BIOL 0213 - HUMAN ANATOMY AND PHYSIOLOGY 2
- BIOL 0222 - HUMAN ANATOMY AND PHYSIOLOGY LAB 1
- BIOL 0223 - HUMAN ANATOMY AND PHYSIOLOGY LAB 2
- CHEM 0101 - GENERAL CHEMISTRY 1
- MATH 0110 - FUNDAMENTALS OF MATHEMATICS
- MIS 0103 - COMPUTER APPLICATIONS FOR MANAGEMENT
- PSY 0201 - STATISTICS
- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- PSY 0101 - INTRODUCTION TO PSYCHOLOGY
- SOC 0101 - INTRODUCTION TO SOCIOLOGY
- COMM 0104 - PUBLIC SPEAKING
- PHIL 0214 - BIOETHICS
- HPRED 0108 - NUTRITION


## Health-Focus Electives

Health-focus electives may be chosen from:

- CHEM 0103 - BIOLOGICAL CHEMISTRY
- CHEM 0187 - DRUGS AND SOCIETY
- SOC 1307 - SOCIOLOGY OF HEALTH ILLNESS AND DISEASE
- PSY 0206-ABNORMAL PSYCHOLOGY
- PSY 0202 - CHILD DEVELOPMENT
- PSY 1407-COUNSELING PSYCHOLOGY


## Note:

In addition to completing the required courses listed above, the student must earn a minimum cumulative and prerequisite GPA of 2.5 and earn a minimum grade of C - in all courses designated as prerequisites.

## Pre-Health Information Management

## Contact: Dr. Robin Choo

Health information managers design and manage health information systems to ensure they meet medical, legal and ethical standards. Some of their responsibilities include collecting and analyzing patient data; ensuring patient's medical records are complete and accurate; and designing, generating and analyzing reports for administrators and physicians.
Our program leads to a bachelor's degree and your becoming a registered health information technician. You will start your studies on our campus, where you will take courses your first two years. You will transfer to the University of Pittsburgh School of Health and Rehabilitation Sciences in Pittsburgh to finish your last two years.

## Pre-Medicine

## Contact: Dr. David Merwine

Students interested in earning either a Doctor of Medicine (MD) or a Doctor of Osteopathic Medicine (DO) degree upon completing a bachelor's degree at the University of Pittsburgh at Bradford may choose to major in any academic discipline. Most students currently attending medical schools majored in biology. Each medical school may have specific requirements, in addition to the minimum courses required by all medical schools, so students are advised to check with the medical schools of their choice prior to completing their bachelor's degree.

## Transfer Program Requirements

Minimum prerequisites include:

- BIOL 0101 - INTRODUCTION TO CELL AND MOLECULAR BIOLOGY
- BIOL 0102 - INTRODUCTION TO BIODIVERSITY
- CHEM 0101 - GENERAL CHEMISTRY 1
- CHEM 0102 - GENERAL CHEMISTRY 2
- CHEM 0206 - ORGANIC CHEMISTRY 1
- CHEM 0207-ORGANIC CHEMISTRY 1 LAB
- CHEM 0208 - ORGANIC CHEMISTRY 2
- CHEM 0209 - ORGANIC CHEMISTRY 2 LAB
- PHYS 0101 - INTRODUCTION TO PHYSICS 1
- PHYS 0102 - INTRODUCTION TO PHYSICS 2
- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- MATH 0140 - CALCULUS 1
- PSY 0101 - INTRODUCTION TO PSYCHOLOGY
- PSY 0201 - STATISTICS
- SOC 0101 - INTRODUCTION TO SOCIOLOGY


## Lake Erie College of Osteopathic Medicine (LECOM) Affiliation Agreement (3+4 and 4+4 Programs in Primary Care Medicine)

If you have successfully completed specific core course requirements on our campus, you may continue your education in medicine at LECOM after your third year of undergraduate coursework. A bachelor's degree from Pitt-Bradford will be awarded after the successful completion of your first year of medical school classes at LECOM. In order to be admitted into this program, you must have high SAT or ACT scores and a high school GPA, exhibit potential for osteopathic medicine, and complete a personal interview at LECOM. For the current requirements, please visit this web-site: https://lecom.edu/academics/early-acceptance-program. If you are interested in participating in this program, you should contact Dr. Robin Choo at rec27@pitt.edu.

## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Pre-Occupational Therapy

Contact: Dr. Mark Kelley

## Transfer Program Requirements

The University of Pittsburgh's occupational therapy program is an entry-level master's degree program. The student will complete a bachelor's degree at the University of Pittsburgh at Bradford and then apply to the University of Pittsburgh's Master of Occupational Therapy program in the School of Health and Rehabilitation Sciences (SHRS). No specific bachelor's degree is mandated, but biology, psychology, and sports medicine are majors commonly chosen. Any bachelor's degree should include the following courses:

- BIOL 0212 - HUMAN ANATOMY AND PHYSIOLOGY 1
- BIOL 0213 - HUMAN ANATOMY AND PHYSIOLOGY 2
- BIOL 0222 - HUMAN ANATOMY AND PHYSIOLOGY LAB 1
- BIOL 0223 - HUMAN ANATOMY AND PHYSIOLOGY LAB 2
- PHYS 0101 - INTRODUCTION TO PHYSICS 1
- PHYS 0103 - CONCEPTS OF MODERN PHYSICS
- PSY 0101 - INTRODUCTION TO PSYCHOLOGY
- PSY 0202 - CHILD DEVELOPMENT
- PSY 0206 - ABNORMAL PSYCHOLOGY
- PSY 0201 - STATISTICS


## Word Processing Computing Competency

- MIS 0103 - COMPUTER APPLICATIONS FOR MANAGEMENT


## Note:

In addition to earning a bachelor's degree and completing the required courses listed above, the student must earn a minimum overall and prerequisite 3.00 grade point average (GPA), take the general Graduate Record Examination (GRE), and complete a minimum of 20 hours of volunteer or paid work in occupational therapy in at least two different practice areas.

## The University of Pittsburgh School of Health and Rehabilitation Sciences offers a freshman guarantee to the occupational therapy master's program.

Pitt Freshman Guarantee: Students must apply for this guarantee the very first time they register as freshmen at Pitt-Bradford by specifying occupational therapy, and then the Office of Enrollment Services will automatically review for granting of the guarantee. If all MOT admissions criteria are met, students are automatically accepted into the master's program and will not have to compete for admission, but they will have to apply for admission during the senior year of their undergraduate program.

## University of Pittsburgh Freshman Guarantee in Occupational Therapy in the School of Health and Rehabilitation Sciences:

- Indicate PREOT Pre-occupational therapy on the admissions application,
- Minimum pre-2005 SAT score of 1200 ,
- Complete an undergraduate degree at Pitt with an overall GPA of 3.3 or higher, as well as a GPA of 3.3 or higher in the prerequisite courses,
- Achieve a combined score of 1000 or greater on the Verbal and Quantitative sections and a minimum score of 3.5 on the Analytical section of the GRE,
- Complete 20 hours of volunteer experience.

Check with the School of Health and Rehabilitation Sciences (admissions@shrs.pitt.edu) for its most current requirements for the Freshman Guarantee.

## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Pre-Optometry

Contact: Dr. David Merwine

## Affiliation Agreement Pre-Optometry Programs

The University of Pittsburgh at Bradford and the Pennsylvania College of Optometry at Salus University (PCO) have an affiliation agreement establishing a joint undergraduate/professional program of education leading to the Doctor of Optometry (OD) degree. PCO agrees to provide places in its first professional year class to University of Pittsburgh at Bradford students who have successfully completed their undergraduate preoptometry program prerequisites at Pitt-Bradford and have satisfied other admission requirements of PCO. Students may apply to PCO after completing three years and 90 credits at Pitt-Bradford. The work at Pitt-Bradford will include general education program requirements and major requirements, which lead to a baccalaureate degree in biology, chemistry, or psychology. Upon successful completion of one year of basic science education at PCO, students will earn a BS from the University of Pittsburgh at Bradford. Upon successful completion of four years (including the first year of basic sciences) of the optometry education program, PCO shall award the OD degree.

## Transfer Program Requirements

Minimum requirements for biology or chemistry or psychology majors include:

- BIOL 0101 - INTRODUCTION TO CELL AND MOLECULAR BIOLOGY
- BIOL 0102 - INTRODUCTION TO BIODIVERSITY
- CHEM 0101 - GENERAL CHEMISTRY 1
- CHEM 0102 - GENERAL CHEMISTRY 2
- CHEM 0206 - ORGANIC CHEMISTRY 1
- CHEM 0207-ORGANIC CHEMISTRY 1 LAB
- BIOL 1402 - MOLECULAR BIOLOGY
- CHEM 1306 - BIOCHEMISTRY
- BIOL 1302 - MICROBIOLOGY
- MATH 0140 - CALCULUS 1
- PHYS 0101 - INTRODUCTION TO PHYSICS 1
- PHYS 0102 - INTRODUCTION TO PHYSICS 2
- PHYS 0201 - FOUNDATIONS OF PHYSICS 1
- PHYS 0202 - FOUNDATIONS OF PHYSICS 2
- PHYS 0203 - FOUNDATIONS OF PHYSICS 1 LAB
- PHYS 0204 - FOUNDATIONS OF PHYSICS 2 LAB
- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- PSY 0101 - INTRODUCTION TO PSYCHOLOGY
- PSY 0201 - STATISTICS
- ECON 0204 - STATISTICAL METHODS
- MATH 0133 - STATISTICS


## Strongly recommended:

- MATH 0150 - CALCULUS 2


## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Pre-Physical Therapy

## Contact: Professors Mark Kelley

The University of Pittsburgh's program is an entry-level Doctor of Physical Therapy program. The student will complete a bachelor's degree at the University of Pittsburgh at Bradford and then apply to the University of Pittsburgh's Doctor of Physical Therapy program in the School of Health and Rehabilitation Sciences (SHRS). No specific bachelor's degree is mandated, but biology, psychology, and sports medicine are majors commonly chosen.

## Transfer Program Requirements

Any bachelor's degree must include the following courses:

- BIOL 0101 - INTRODUCTION TO CELL AND MOLECULAR BIOLOGY
- BIOL 0102 - INTRODUCTION TO BIODIVERSITY
- BIOL 0212 - HUMAN ANATOMY AND PHYSIOLOGY 1
- BIOL 0213 - HUMAN ANATOMY AND PHYSIOLOGY 2
- BIOL 0222 - HUMAN ANATOMY AND PHYSIOLOGY LAB 1
- BIOL 0223 - HUMAN ANATOMY AND PHYSIOLOGY LAB 2
- CHEM 0101 - GENERAL CHEMISTRY 1
- CHEM 0102 - GENERAL CHEMISTRY 2
- PHYS 0101 - INTRODUCTION TO PHYSICS 1
- PHYS 0102 - INTRODUCTION TO PHYSICS 2
- PSY 0101 - INTRODUCTION TO PSYCHOLOGY
- PSY 0202 - CHILD DEVELOPMENT
- PSY 0206 - ABNORMAL PSYCHOLOGY
- PSY 0201 - STATISTICS
- ECON 0204 - STATISTICAL METHODS
- MATH 0133 - STATISTICS
- ECON 0101 - ECONOMICS IN THE MODERN WORLD


## Note:

In addition to earning a bachelor's degree and completing the required courses listed above, the student must earn a minimum overall grade point average (GPA) of 3.00 and a 3.0 GPA in the prerequisite courses; score 1000 or better on the Graduate Record Examination (GRE) Verbal and Quantitative sections (a minimum of 500 on each) and a minimum score of 3.5 on the Analytical section; and have physical therapy experience in more than one setting. (Applicants who do not meet the minimum requirements for admission may be admitted provisionally if strong supporting evidence of their ability to complete a graduate program is provided.)

The University of Pittsburgh School of Health and Rehabilitation Sciences offers a freshman guarantee to the physical therapy doctoral program.

## Pitt Freshman Guarantee:

Students must apply for this guarantee the very first time they register as freshmen at Pitt-Bradford by specifying physical therapy, and then the Office of Enrollment Services will automatically review for granting of the guarantee. If all physical therapy admissions criteria are met, students are automatically accepted into the doctoral program and will not have to compete for admission, but they will have to apply for admission during the senior year of their undergraduate program.

University of Pittsburgh Freshman Guarantee in Physical Therapy in the School of Health and Rehabilitation Sciences:

- Indicate PREPT Pre-physical therapy on the admissions application and/or on first registration as freshman at Pitt-Bradford,
- Minimum SAT score of 1350 ,
- Complete an undergraduate degree at Pitt-Bradford with an overall GPA of 3.5 or higher, as well as a GPA of 3.5 or higher in the prerequisite courses,
- Achieve a combined score of 1000 or greater on the Verbal and Quantitative sections and a minimum score of 3.5 on the Analytical section of the GRE,
- Demonstrate evidence of adequate exposure to the field of physical therapy.

Check with the School of Health and Rehabilitation Sciences for its most current requirements for the Freshman Guarantee (admissions@shrs.pitt.edu).

## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at
facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Pre-Physician Assistant

Program Contact: Dr. Robin Choo
The physician assistant (PA) is one of the fastest growing occupations in the country. These health care providers work under the supervision of a physician to diagnose and treat illnesses and injuries in patients.

## Transfer Program Requirements

To enter a physician assistant graduate program, a student must usually complete a bachelor's degree first, which should include the prerequisite courses below:

- CHEM 0101 - GENERAL CHEMISTRY 1
- CHEM 0102 - GENERAL CHEMISTRY 2
- BIOL 0101 - INTRODUCTION TO CELL AND MOLECULAR BIOLOGY
- BIOL 0102 - INTRODUCTION TO BIODIVERSITY
- BIOL 0212 - HUMAN ANATOMY AND PHYSIOLOGY 1
- BIOL 0213 - HUMAN ANATOMY AND PHYSIOLOGY 2
- BIOL 0222 - HUMAN ANATOMY AND PHYSIOLOGY LAB 1
- BIOL 0223 - HUMAN ANATOMY AND PHYSIOLOGY LAB 2
- PSY 0101 - INTRODUCTION TO PSYCHOLOGY
- MATH 0098 - COLLEGE ALGEBRA 2
- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- BIOL 0203 - GENETICS
- BIOL 1302 - MICROBIOLOGY
- PSY 0201 - STATISTICS
- MATH 0133 - STATISTICS

In addition, many PA programs also recommend the following courses:

- CHEM 0206 - ORGANIC CHEMISTRY 1
- CHEM 0207 - ORGANIC CHEMISTRY 1 LAB
- CHEM 0208 - ORGANIC CHEMISTRY 2
- CHEM 0209 - ORGANIC CHEMISTRY 2 LAB
- PSY 0202 - CHILD DEVELOPMENT
- PSY 0206 - ABNORMAL PSYCHOLOGY
- BIOL 1320 - CELL BIOLOGY
- CHEM 1306-BIOCHEMISTRY

Note:

Keep in mind that requirements do vary from program to program, so be sure to contact the schools you plan to apply to early on during your undergraduate career to ensure that you have met all of their prerequisite requirements. Many programs also require some previous working experience in a health care environment, which can often be met by working as a nurse's aide, an EMT, or in some other health care professional capacity.

## Freshman Guarantee for the Physician Assistant Studies Program

The Physician Assistant Studies Program in the School of Health and Rehabilitation Sciences, Department of Rehabilitation Science and Technology, has developed a freshman guarantee program for students at the regional campuses of the University of Pittsburgh.

To obtain the freshman guarantee in Physician Assistant Studies students must:

- Earn the highest grade point average available in student's high school with a curriculum showing the greatest academic rigor possible
- Top $1 \%$ of class
- Combined Math \& Critical Reading (verbal) score of 1400
- Indicate Pre-physician's Assistant as an intended field of study on the admissions application
- Have a completed admissions application on file, including all required documents, by December 15
- Submit directly to the program, three letters of recommendation and a personal statement describing their interest in a career as a physician assistant
- Successfully complete an interview with the program faculty

To maintain the freshman guarantee, the student must:

- Maintain an overall GPA of 3.75 or higher and a science GPA of 3.75 or higher at Pitt
- Complete the prerequisite courses and requirements for the PA Program
- Must have at least 40 hours of shadowing a PA
- Must meet with PA faculty member at least once a year providing proof of GPA and courses taken
- Complete their undergraduate degree in four years


## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Pre-Podiatry

Contacts: Dr. Robin Choo

Students interested in earning a Doctor of Podiatric Medicine (DPM) must complete a minimum of 90 credits ( 95 percent of those accepted to schools of podiatric medicine have earned a minimum of 120 credits and a baccalaureate degree) at the University of Pittsburgh at Bradford before applying to a school of podiatry. Most students attending podiatry colleges have earned a baccalaureate degree in biology prior to admittance. Each professional school may have specific requirements, in addition to the minimum courses required by all podiatry colleges, so students are advised to check with the podiatry schools of their choice prior to completing their bachelor's degree.

## Transfer Program Requirements

Minimum prerequisites include:

- BIOL 0101 - INTRODUCTION TO CELL AND MOLECULAR BIOLOGY
- BIOL 0102 - INTRODUCTION TO BIODIVERSITY
- CHEM 0101 - GENERAL CHEMISTRY 1
- CHEM 0102 - GENERAL CHEMISTRY 2
- CHEM 0206 - ORGANIC CHEMISTRY 1
- CHEM 0207 - ORGANIC CHEMISTRY 1 LAB
- CHEM 0208 - ORGANIC CHEMISTRY 2
- CHEM 0209 - ORGANIC CHEMISTRY 2 LAB
- PHYS 0101 - INTRODUCTION TO PHYSICS 1
- PHYS 0102 - INTRODUCTION TO PHYSICS 2
- PHYS 0201 - FOUNDATIONS OF PHYSICS 1
- PHYS 0202 - FOUNDATIONS OF PHYSICS 2
- PHYS 0203 - FOUNDATIONS OF PHYSICS 1 LAB
- PHYS 0204 - FOUNDATIONS OF PHYSICS 2 LAB
- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2


## Highly recommended electives include:

- BIOL 0212 - HUMAN ANATOMY AND PHYSIOLOGY 1
- BIOL 0222 - HUMAN ANATOMY AND PHYSIOLOGY LAB 1
- BIOL 0213 - HUMAN ANATOMY AND PHYSIOLOGY 2
- BIOL 0223 - HUMAN ANATOMY AND PHYSIOLOGY LAB 2
- BIOL 0202 - MICROBIOL FOR ALLIED HEALTH PROFESSIONALS
- BIOL 1302 - MICROBIOLOGY
- BIOL 1310 - ANIMAL PHYSIOLOGY
- BIOL 1401 - DEVELOPMENTAL BIOLOGY
- CHEM 1306-BIOCHEMISTRY


## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Pre-Veterinary Medicine

## Contacts: Dr. Mary Mulcahy

Students interested in earning a Doctor of Veterinary Medicine (DVM) upon completing a bachelor's degree at the University of Pittsburgh at Bradford may choose to major in any academic discipline. Most students attending veterinary medical schools majored in biology. Each professional school may have specific requirements, in addition to the minimum courses required by most veterinary medicine colleges, so students are advised to check with the veterinary medicine schools of their choice prior to completing their bachelor's degree.

## Transfer Program Requirements

Minimum prerequisites include:

- BIOL 0101 - INTRODUCTION TO CELL AND MOLECULAR BIOLOGY
- BIOL 0102 - INTRODUCTION TO BIODIVERSITY
- CHEM 0101 - GENERAL CHEMISTRY 1
- CHEM 0102 - GENERAL CHEMISTRY 2
- CHEM 0206-ORGANIC CHEMISTRY 1
- CHEM 0207-ORGANIC CHEMISTRY 1 LAB
- CHEM 0208 - ORGANIC CHEMISTRY 2
- CHEM 0209 - ORGANIC CHEMISTRY 2 LAB
- CHEM 1306-BIOCHEMISTRY
- PHYS 0101 - INTRODUCTION TO PHYSICS 1
- PHYS 0102 - INTRODUCTION TO PHYSICS 2
- PHYS 0201 - FOUNDATIONS OF PHYSICS 1
- PHYS 0202 - FOUNDATIONS OF PHYSICS 2
- PHYS 0203 - FOUNDATIONS OF PHYSICS 1 LAB
- PHYS 0204 - FOUNDATIONS OF PHYSICS 2 LAB
- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- MATH 0132 - PRECALCULUS


## Highly recommended electives:

- BIOL 1302 - MICROBIOLOGY
- BIOL 1310 - ANIMAL PHYSIOLOGY

Note:

Veterinary-related experience is extremely important. This can be gained through paid employment, volunteer work, or internships and may be done in veterinary clinics, farms, zoos, wildlife parks, or ranches. Students should keep a daily time and activity log of their veterinary-related experiences.

## Please be advised

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## Pre-Athletic Training

Contact: Dr. Mark Kelley

## Required Coursework

- BIOL 0212 - HUMAN ANATOMY AND PHYSIOLOGY 1
- BIOL 0222 - HUMAN ANATOMY AND PHYSIOLOGY LAB 1
- BIOL 0213 - HUMAN ANATOMY AND PHYSIOLOGY 2
- BIOL 0223 - HUMAN ANATOMY AND PHYSIOLOGY LAB 2
- BIOL 0101 - INTRODUCTION TO CELL AND MOLECULAR BIOLOGY
- CHEM 0101 - GENERAL CHEMISTRY 1
- PHYS 0101 - INTRODUCTION TO PHYSICS 1
- EXSCI 1305-BIOMECHANICS
- EXSCI 1306 - EXERCISE PHYSIOLOGY
- HPRED 0108 - NUTRITION
- PSY 0101 - INTRODUCTION TO PSYCHOLOGY
- PSY 0201 - STATISTICS


## Other requirements/recommendations

- Some AT masters programs also require a Medical Terminology course, a Health course, and/or a 200 level Psychology course as prerequisites
- Minimum GPA of 3.0 or higher; C or higher in all required prerequisite courses
- CPR/AED certification required
- Minimum of 50 observation hours required
- Please check the admissions requirements of any AT master's program that you are applying to, as individual programs may have additional requirements
The Pre-Athletic Training (AT) program would help prepare students who want to apply to Athletic Training graduate programs. These would be the prerequisite courses and other requirements most of the master's level Athletic Training graduate programs require. A student may pursue any academic major at Pitt-Bradford and take this pre-AT coursework, although Exercise Science and Biology are recommended.


# The Division of Communications and the Arts 

## Major

## Broadcast Communications, BA

Contact: Professor Jeffrey Guterman
(Television and Radio)
The broadcast communications major at the University of Pittsburgh at Bradford prepares students for careers in radio and television, careers related to the electronic media, and for graduate study. The comprehensive program combines a liberal arts background with specialized instruction in radio and television communication.

The communications student explores media history, message design and production techniques, advertising strategies, theories of communication, and programming and management principles. The program provides production training in radio and television, using professional-quality digital equipment both in the studio and in the field. Students engage in a number of audio and video projects while learning to use the technology needed for assembling effective electronic messages.

Graduates of the communications program are prepared for positions in media production, on-air performance, advertising, sales, and programming. The program includes internship opportunities at local and regional television and radio stations.

## Degree Requirements

Course requirements in the major

- COMM 0102 - SURVEY OF BROADCASTING
- COMM 0103-BROADCAST JOURNALISM
- COMM 0202 - RADIO PRODUCTION
- COMM 0203 - DIGITAL VIDEO I
- COMM 0210 - SOCIAL MEDIA COMMUNICATION
- COMM 1301 - DIGITAL VIDEO II
- COMM 1302 - MEDIA ADVERTISING
- COMM 1401 - BROADCAST PROGRAMMING AND MGT
- COMM 1403 - CURRENT ISSUES IN MASS MEDIA
- COMM 1451 - CAPSTONE: COMMUNICATIONS
- COMM 0101 - INTRO TO HUMAN COMMUNICATION or
- COMM 0104 - PUBLIC SPEAKING
- COMM 0201 - MASS MEDIA AND SOCIETY


## Total credits required for the major: 39

## Required minor*: 15-21

Note: Transfer students who have earned a previous degree, or Pitt-Bradford students with a second major, do not need to complete a minor.

## Please be advised

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## Suggested Course of Study

## First Year

- COMM 0102 - SURVEY OF BROADCASTING
- COMM 0103 - BROADCAST JOURNALISM
- ENG 0101 - ENGLISH COMPOSITION 1
- FS 0104 - FIRST YEAR TRANSITION SEMINAR
- ENG 0102 - ENGLISH COMPOSITION 2
- MATH 0110 - FUNDAMENTALS OF MATHEMATICS
- COMM 0101 - INTRO TO HUMAN COMMUNICATION or
- COMM 0104 - PUBLIC SPEAKING
- General education or elective courses - 9 Credits

Credits: 30

## Second Year

- COMM 0201 - MASS MEDIA AND SOCIETY
- COMM 0202 - RADIO PRODUCTION
- COMM 0203 - DIGITAL VIDEO I
- COMM 0210 - SOCIAL MEDIA COMMUNICATION
- Course in minor - 3 Credits
- General education or elective courses - 12 Credits

Credits: 29

## Third Year

- COMM 1301 - DIGITAL VIDEO II
- COMM 1302 - MEDIA ADVERTISING
- Courses in minor - 6 Credits
- General education or elective courses - 16 Credits

Credits: 29

Fourth Year

- COMM 1401 - BROADCAST PROGRAMMING AND MGT
- COMM 1403 - CURRENT ISSUES IN MASS MEDIA
- COMM 1451 - CAPSTONE: COMMUNICATIONS
- Courses in minor-6-12 Credits
- General education or elective courses - 13-19 Credits

Credits: 28-40

## Communications, BA

## Contact: Professor Jeffrey Guterman

The skills you learn in our communications program will help you throughout your entire life. Learning to communicate effectively will help you, both personally and professionally. Communications professionals work in virtually every industry. Companies, educational institutions and others place a high value on people who are able to communicate clearly and effectively.

## Degree Requirements

- COMM 0101 - INTRO TO HUMAN COMMUNICATION
- COMM 0104 - PUBLIC SPEAKING
- COMM 0115 - INTERPERSONAL COMMUNICATION
- COMM 0120 - INTERCULTURAL COMMUNICATION
- COMM 0201 - MASS MEDIA AND SOCIETY
- COMM 0210 - SOCIAL MEDIA COMMUNICATION
- COMM 1308 - ORGANIZATIONAL COMMUNICATION
- COMM 1309 - ENVIRONMENTAL COMMUNICATIONS
- COMM 1310 - HUMAN COMMUNICATION THEORY
- COMM 1410 - PERSUASION
- COMM 1451 - CAPSTONE: COMMUNICATIONS
- COMM 1499 - INTERNSHIP: COMMUNICATION

Total credits required for the major: 36

## Required minor*

Note: Transfer students who have earned a previous degree, or Pitt-Bradford students with a second major, do not need to complete a minor.

## Suggested Course of Study:

## First Year:

- ENG 0101 - ENGLISH COMPOSITION 1
- FS 0104 - FIRST YEAR TRANSITION SEMINAR
- ENG 0102 - ENGLISH COMPOSITION 2
- MATH 0098 - COLLEGE ALGEBRA 2 or
- MATH 0110 - FUNDAMENTALS OF MATHEMATICS
- COMM 0101 - INTRO TO HUMAN COMMUNICATION
- COMM 0104 - PUBLIC SPEAKING
- COMM 0120 - INTERCULTURAL COMMUNICATION

GE Arts and Letters
GE Economics or Political Science
Elective

Credits: 30

## Second Year:

- COMM 0115 - INTERPERSONAL COMMUNICATION
- COMM 0201 - MASS MEDIA AND SOCIETY
- COMM 0210 - SOCIAL MEDIA COMMUNICATION
- GE Economics or Political Science (Global)
- GE: Arts \& Letters
- GE: History, Cultures or Philosophical Inquiry (NW/Global)
- GE Science
- GE:PEDC
- Minor Course
- GE: Science
- Lab

Credits: 29

## Third Year:

- COMM 1308-ORGANIZATIONAL COMMUNICATION
- COMM 1309 - ENVIRONMENTAL COMMUNICATIONS
- COMM 1310 - HUMAN COMMUNICATION THEORY
- GE: History, Cultures or Philosophical Inquiry
- Minor Course Upper Level Elective
- GE: Science Course
- Minor Course Elective
- Upper Level Elective (Minor)
- Elective Course
- Elective Course

Credits: 30

## Fourth Year:

- COMM 1410 - PERSUASION
- COMM 1451 - CAPSTONE: COMMUNICATIONS
- COMM 1499 - INTERNSHIP: COMMUNICATION
- Elective Course (4cr)
- Elective Course
- Elective Course
- Minor Course
- Upper Level Elective
- Upper Level Elective


## English, BA

## Contact: Dr. Donald Ulin

From medieval Europe to African villages to the back roads of America, an English major will take students to new places and introduce them to the company of authors and characters they won't meet anywhere else. Building on a solid core of British, American, and contemporary world literature, students design a curriculum to suit their own interests and career plans, drawing on courses from creative writing, environmental literature, and literatures from around the world.

The English major provides one of the strongest foundations for a wide range of careers, including business, law, teaching, public service, journalism, creative writing, and publishing. The reading, writing, research, and critical thinking skills students will develop in the English major are the skills that will eventually take them past the entry-level position and into a career. Many English majors supplement their primary program with internships, academic minors, study abroad programs, and other enhancements.

A minor is not required, but many students combine the English major with minors in business, environmental studies, theater, public relations, or philosophy. Once students have chosen to major in English, an advisor will work with them to design a program that best meets their needs.

## Degree Requirements

## Take these three courses

- ENG 0110 - LITERATURE AND INTERPRETATION
- CLP 1315 - CRITICAL METHODS
- ENG 1451 - CAPSTONE: ENGLISH

Take Shakespeare

- ENG 0205 - INTRODUCTION TO SHAKESPEARE


## Six courses required from the following list:

Including at least one course from a period prior to 1800 (indicated with asterisks), and one course from each group (18 credits)
American Literature Survey

- ENG 0201 - AMERICAN LIT BEFORE CIVIL WAR *
- ENG 0202 - AMERICAN LIT SINCE THE CIVIL WAR
- ENG 1308-20TH-CENTURY AMERICAN LIT


## British/European Literature Survey

- ENG 0203 - BRITISH LITERATURE BEFORE 1800 *
- ENG 0204 - BRITISH LITERATURE SINCE 1800
- ENG 1306-TWENTIETH-CENTURY IRISH LIT


## Contemporary World Literature

- CLP 0206 - HISPANIC LITERATURE (IN ENGLISH)
- CLP 0207 - SHORT FICTION IN SPANISH
- CLP 0216 - MODERN AFRICAN LITERATURE: THE NOVEL
- CLP 1310 - POSTCOLONIAL LITERATURE
- CLP 1350 - LATINA WRITERS


## Western Foundations

(These courses cannot count as pre-1800)

- ENG 0105 - MASTERPIECES OF WORLD LITERATURE
- PHIL 0101 - INTRODUCTION TO PHILOSOPHY


## Take 12 elective credits ENG, CLP or WRITNG

Twelve additional credits of electives in English, writing, or comparative literature courses: At least 9 credits from all of the credits counting toward the major (in addition to capstone and critical methods) must be taken at the 1300 or 1400 level. Three of those credits may include 1497, 1498 and 1499.

## Complete Second Language Proficiency

Complete second language through and including the intermediate level (or the equivalent) 0-9 credits.
Total credits required for the major: 42-51
Minor (recommended): 15-24

## General Education Program Requirements and Electives-Variable

(See General Education Program and General Requirements for the Bachelor's Degree under Academic Policies and Guidelines for further details.)

## Please be advised

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## Suggested Course of Study

## First Year

- ENG 0101 - ENGLISH COMPOSITION 1
- FS 0104 - FIRST YEAR TRANSITION SEMINAR
- ENG 0102 - ENGLISH COMPOSITION 2
- ENG 0110 - LITERATURE AND INTERPRETATION
- MATH 0110 - FUNDAMENTALS OF MATHEMATICS
- Second language ( 2 semesters) - 6 Credits
- General education or elective courses - 6 Credits
- ENG elective
- English coverage course - 1 credit

Credits: 31

## Second Year

- Two English coverage courses - 6 Credits
- Second language (1-2 semesters) - 3 Credits
- Two English or writing elective - 6 credits
- ENG 0205 - INTRODUCTION TO SHAKESPEARE
- CLP 1315 - CRITICAL METHODS
- General education or elective courses - 9 Credits

Credits: 30

## Third Year

- Physical Education - 1 Credit
- 3 English coverage courses - 9 Credits
- 2 Upper-level major electives - 6 Credits
- Minor courses, general education, or elective courses - 15 Credits

Credits: 31

## Fourth Year

- ENG 1451-CAPSTONE: ENGLISH
- English electives - 3 Credits
- Minor courses, general electives - 21 Credits
- 1 Upper-level major elective - 3 credits

Credits: 30

## Interdisciplinary Arts, BA

## Contact: Dr. Kevin Ewert

The Interdisciplinary Arts major at Pitt-Bradford provides students with a cross-curricular education in the arts that emphasizes creative problem solving and investigation. The program explores thematic relationships between the fine and performing arts through a combination of theoretical inquiry and experiential learning. Students select and integrate two concentrations from among the disciplines of creative writing, music, theatre and visual art, while guided through the process by a committed faculty of working artist-educators. The interdisciplinary experience culminates with the senior capstone course, in which students create projects that creatively weave together their areas of expertise.

Students majoring in interdisciplinary arts complete a total of 45 credits in the program -9 general program credits taken by all students, 18 credits in each of two major areas of study.

Students are required to select two areas from art, digital graphic design, music, theater, and writing disciplines as their major components in their Interdisciplinary Arts Major program.

## Major Requirements:

Select two arts areas from Art or Music or Theater or Writing (18 credits/discipline) 36 credits

- IA 0101 - ARTS AWARENESS
- IA 1310 - PRINCIPLES OF ARTS MANAGEMENT
- COMM 1307 - VISUAL COMMUNICATIONS
- IA 1451 - CAPSTONE: INTERDISCIPLINARY ARTS

Total: 48

## The Art Requirements

These courses would be required for all students with a Studio Art or Digital Graphic Design Focus. Students in either Studio Art or Digital Graphic Design cannot also receive a minor in the same area as their major.

## Studio Art Focus:

- ART 0101 - DRAWING 1
- ART 0201 - COLOR AND DESIGN
- ART 0105 - WORLD ART: ANCIENT TO MEDIEVAL or
- ART 0106 - WORLD ART: RENAISSANCE TO CONTEMPORARY
- ART 1302 - NEW GENRES
- One Studio course ANY level
- One upper level Studio course

Total credits required for Studio Art: 18

## Digital Graphic Design Focus:

- ART 0101 - DRAWING 1
- ART 0103 - DIGITAL GRAPHIC DESIGN 1
- ART 0105 - WORLD ART: ANCIENT TO MEDIEVAL or
- ART 0106 - WORLD ART: RENAISSANCE TO CONTEMPORARY
- ART 1303 - DIGITAL GRAPHIC DESIGN II
- ART 0113 - DIGITAL PHOTOGRAPHY I
- ART 1302 - NEW GENRES
- ART 1304 - DIGITAL PHOTOGRAPHY II

Total credits required for Digital Graphic Design: 18

Available lower-level studio art courses:

- ART 0101 - DRAWING 1
- ART 0109 - MURAL DESIGN
- ART 0112 - PRINTMAKING
- ART 0103 - DIGITAL GRAPHIC DESIGN 1
- ART 0113 - DIGITAL PHOTOGRAPHY I
- ART 0110 - CERAMICS: HAND BUILDING

Available lower-level art history courses:

- ART 0105 - WORLD ART: ANCIENT TO MEDIEVAL
- ART 0106 - WORLD ART: RENAISSANCE TO CONTEMPORARY

Available upper-level studio art and art history courses:

- ART 1301 - DRAWING II
- ART 1303 - DIGITAL GRAPHIC DESIGN II
- ART 1310 - PAINTING
- ART 1302 - NEW GENRES
- ART 1401 - WATERCOLOR
- ART 1499 - INTERNSHIP IN ART


## The Music Requirements

The music requirements of a major in Interdisciplinary Arts with selection of Music as one of two major components are completed with the following courses:

- MUSIC 0101 - ELEMENTS OF MUSIC
- MUSIC 0102 - INTRODUCTION TO MUSIC
- MUSIC 1339 - MUSICAL STYLES

Two additional 3 credit Music courses
3 credits of Applied Music lessons and/or Vocal Arts Ensemble

Total credits required for Music: 18

Available lower-level music courses:

- MUSIC 0101 - ELEMENTS OF MUSIC (formerly Basic Musicianship)
- MUSIC 0102 - INTRODUCTION TO MUSIC
- MUSIC 0215 - DIGITAL MUSIC CREATION
- MUSIC 0195 - APPLIED MUSIC (1 cr. x 3 )


## The Theater Requirements

The theater requirements of a major in Interdisciplinary Arts with selection of Theater as one of two major components are completed with the following courses:

- THEA 0101 - INTRODUCTION TO THEATRE
- THEA 0203 - PLAY ANALYSIS
- One upper-level theatre course - 3 Credits
- One further elective course in theater, lower or upper level-3 Credits

Two courses from

- THEA 0102 - THEATRE PRACTICUM - DESIGN AND STAGECRAFT and/or
- THEA 0103 - THEATRE PRACTICUM: PERFORMANCE

Total credits required for Theater: 18
Available upper-level theater courses:

- THEA 1302 - DIRECTING AND DEVISING
- THEA 1497 - DIRECTED STUDY: THEATRE ARTS
- THEA 1498 - DIRECTED RESEARCH: THEATRE ARTS
- THEA 1499 - INTERNSHIP: THEATRE ARTS


## The Writing Requirements

The writing requirements of a major in Interdisciplinary Arts with selection of Writing as one of two major components are completed with the following courses:

- Four writing courses, which can include upper-level course(s) - 12 Credits
- One literature course - 3 Credits
- One upper-level writing course - 3 Credits

Total credits required for Writing: 18

Available lower-level writing courses:

- COMM 0106 - NEWS WRITING
- WRITNG 0106 - FICTION WRITING 1
- WRITNG 0107 - POETRY WRITING 1
- COMM 0108 - NEWSPAPER STAFF (THE SOURCE)
- WRITNG 0108 - CREATIVE NONFICTION 1
- WRITNG 0111 - LITERARY EDITING AND MAGAZINE PRODUCTION 1
- WRITNG 0211 - LITERARY EDITING AND MAGAZINE PRODUCTION 2

Available upper-level writing courses:

- WRITNG 1302 - FICTION WRITING 2
- WRITNG 1304 - POETRY WRITING 2
- WRITNG 1311 - LITERARY EDITING AND MAGAZIONE PRODUCTION 3
- WRITNG 1402 - CREATIVE NONFICTION: WRITING FROM PERSONAL EXPERIENCE
- WRITNG 1450 - TOPICS IN WRITING


## Please be advised

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licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Writing, BA

## Contact: Dr. Nancy McCabe

In the writing major, students select courses from a range of genres and forms of creative and/or professional writing, becoming adept in areas as varied as fiction, creative nonfiction, poetry, screenwriting, and journalism. They learn principles and practices of magazine and online editing as well as approaches for writing for print and the web. They also take course in literature or communications to develop critical abilities and sensitivity to language, knowledge of the literary tradition, and directions for future careers.

Graduates of writing programs become writers for magazines and websites, TV and movies; they publish books, work as arts administrators, literary agents, speechwriters, technical writers, attorneys, and teachers. Strong writers are in demand in a variety of professions, and combined with instruction in other areas, prepare for careers in business, art/writing therapy, communications, and many others.

## Degree Requirements

## Required Core Courses in the Major

Students must complete four courses from the following list.

- WRITNG 0109 - INTRODUCTION TO CREATIVE WRITING
- WRITNG 0111 - LITERARY EDITING AND MAGAZINE PRODUCTION 1
- WRITNG 1311 - LITERARY EDITING AND MAGAZIONE PRODUCTION 3

OR

- WRITNG 1499 - INTERNSHIP: WRITING
- WRITNG 1451 - CAPSTONE: WRITING

Students must complete five courses from the following list:

- WRITNG 0106 - FICTION WRITING 1
- WRITNG 0107 - POETRY WRITING 1
- WRITNG 0108 - CREATIVE NONFICTION 1
- WRITNG 0110 - SCRIPTWRITING FOR STAGE AND SCREEN
- WRITNG 0210 - INTRODUCTION TO BLOGGING
- WRITNG 0211 - LITERARY EDITING AND MAGAZINE PRODUCTION 2
- WRITNG 0220 - FEATURE WRITING FOR MAGAZINES AND THE WEB
- WRITNG 0250 - SPECIAL TOPICS

Students must complete the following five courses:

- WRITNG 1302 - FICTION WRITING 2
- WRITNG 1304 - POETRY WRITING 2
- WRITNG 1401 - CREATIVE NONFICTION: LITERARY JOURNALISM
- WRITNG 1402 - CREATIVE NONFICTION: WRITING FROM PERSONAL EXPERIENCE
- WRITNG 1450 - TOPICS IN WRITING


## Track Options

Students must complete either a Creative Writing Track or Journalism Track for the Writing, BA. Both tracks require students to complete three courses.

## Creative Writing Track Requirements

Students must complete three literature courses (ENG or CLP).

## Journalism Track Requirements

Students must complete three communications courses (COMM).

## Total credits in the major: 51

## General Education Program Requirements and Electives-Variable

(See General Education Program and General Requirements for the Bachelor's Degree under Academic Policies and Guidelines for further details.)
*Students majoring in writing are required to complete a minor in a related area of study approved by their advisors.

## Please be advised

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## Suggested Course of Study BA in Writing

## First Year

- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- Literature course - 3 Credits
- MATH 0110 - FUNDAMENTALS OF MATHEMATICS
- Writing core courses - 6 Credits
- Second language courses - 6 Credits
- General education courses - 6 Credits
- FS 0104 - FIRST YEAR TRANSITION SEMINAR

Credits: 33

## Second Year

- Writing core courses - 10 Credits
- Literature course - 3 Credits
- Minor courses - 6 Credits
- General education courses - 12 Credits

Credits: 31

## Third Year

- Writing core course - 3 Credits
- Writing courses - 7 Credits
- Literature course - 3 Credits
- Minor course - 3 Credits
- General education courses - 15 Credits


## Credits: 31

## Fourth Year

- Writing course - 3 Credits
- Writing elective - 3 Credits
- Capstone - 3 Credits
- Minor courses - 6 Credits
- General education courses and electives - 13 Credits

Credits: 28

## Minor

## Africana Studies Minor

## Contact: Dr. BioDun Ogundayo

Academic Division: Communication and the Arts

## Program Description:

The Africana Studies Minor provides students with the academic and intellectual tools and skills to learn about, reassess, and deepen their knowledge and understanding of peoples of African descent (the Black Diaspora) in the United States and the Caribbean. Courses taught will reflect the gamut of historical, sociological and cultural contributions of these peoples to the richness and diversity of these modern regions of our globe. The minor, academically rigorous and experiential, includes opportunities for research and conference presentations. Courses are drawn from several disciplines to reflect the variety and diversity of the African-American Experience.

## Minor Requirements

A minor in Africana Studies may be earned by completing the following requirements (one course must be an upper-level):

## Introduction

- AFRCNA 0101 - INTRODUCTION TO AFRICANA STUDIES


## Cultural Perspectives (choose four courses):

- AFRCNA 0210 - MODERN BLACK THEATRE
- AFRCNA 0215 - MODERN AFRICAN-AMERICAN CINEMA
- AFRCNA 0220 - THE BLACK POWER MOVEMENT IN THE U.S. AND BEYOND
- CLP 0216 - MODERN AFRICAN LITERATURE: THE NOVEL
- CLP 0220 - CARIBBEAN LITERATURES AND CULTURES
- CLP 1310 - POSTCOLONIAL LITERATURE
- ENG 0219-AFRICAN-AMERICAN WRITERS


## Sociological, Behavioral, Historical Perspectives (choose one course):

- ADMJ 0205 - POLICE AND SOCIETY: RACE, CRIME AND JUSTICE
- SOC 0207 - SOCIOLOGY OF RACE AND ETHNICITY
- HIST 0208 - AFRICAN-AMERICAN HISTORY
- HIST 1321 - THE CIVIL WAR AND RECONSTRUCTION

Total Credits: 18

## Art Minor

Contact: Professor Sunyoung Lee
Academic Division: Communication and the Arts

## Program Description:

The flexible Art Minor is designed to complement our diverse selection of professional degrees. We will broaden your educational experience through an experiential, studio-based art program that focuses on exploring effective and creative visual communication. Our array of courses include two- and three-dimensional studio arts and art history.

## Minor Requirements

A minor in art with concentrations in art history or studio arts is earned by completing the following courses:

- ART 0101 - DRAWING 1
- ART 0105 - WORLD ART: ANCIENT TO MEDIEVAL or
- ART 0106 - WORLD ART: RENAISSANCE TO CONTEMPORARY
- ART 0201 - COLOR AND DESIGN
- One course any level Studio Art
- Two courses upper level Studio Art

Total credits required for the minor: 18

## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Cinema Studies Minor

## Program Description:

In an era of saturation in both traditional and new media, media literacy is necessary for critical media consumption. A minor in cinema studies will serve students insofar as much of the research and developments in both media literacy and new media are rooted in cinema studies. A minor in cinema studies will thus provide not only the foundation for an understanding of the creative aspects of filmmaking, but the foundation for the critical consumption of media in general.

## Minor Requirements

A minor in cinema studies may be earned by completing the following requirements:

- COMM 0109 - INTRODUCTION TO CINEMA
- CLP 0203 - FILM AND LITERATURE or
- AFRCNA 0215 - MODERN AFRICAN-AMERICAN CINEMA
- MUSIC 0260 - MUSIC IN FILM AND GAMING
- COMM 0215 - BOLLYWOOD: POPULAR INDIAN CINEMA
- COMM 1306-AMERICAN CINEMA
- COMM 1307 - VISUAL COMMUNICATIONS

Total Credits: 18

## Communications Minor

Program Contact: Professor Jeffrey Guterman

Academic Division: Communication and the Arts

Program Description:

Our communications minor will prepare you for a career in radio and television, careers related to the electronic media, and for graduate study. Our comprehensive program combines a liberal arts background with specialized instruction in radio and television communication.

## Minor Requirements

A minor in communications may be earned by completing the following course requirements:

- COMM 0102 - SURVEY OF BROADCASTING
- COMM 0103 - BROADCAST JOURNALISM
- COMM 0201 - MASS MEDIA AND SOCIETY
- COMM 0202 - RADIO PRODUCTION
- COMM 0203 - DIGITAL VIDEO I
- COMM 1302 - MEDIA ADVERTISING

Total Credits: 20

## Comparative Literature Minor

Academic Division: Communication and the Arts

## Program Description:

Our minor in comparative literature will expand and deepen your knowledge and understanding of other (non-western) cultures. This minor gives graduating students a competitive edge in the job market because it underscores their exposure to the diversity of world literatures and cultures. We encourage you to enroll in this minor if you're majoring in English, English education, writing, or business management, or minoring in international studies.

## Minor Requirements

A minor in comparative literature may be earned by completing the following requirements:

## Course Electives

- ENG 0110 - LITERATURE AND INTERPRETATION
- Second Language-2 courses in sequence at the 200 level - 6 Credits
- CLP 1315-CRITICAL METHODS

Credits: 21

## Electives

- CLP 0206 - HISPANIC LITERATURE (IN ENGLISH)
- CLP 0207 - SHORT FICTION IN SPANISH
- CLP 1301 The Modernist Tradition
- ENG 0105 - MASTERPIECES OF WORLD LITERATURE
- ENG 0219 - AFRICAN-AMERICAN WRITERS
- PHIL 0203 - PHILOSOPHY IN LITERATURE
- THEA 0203 - PLAY ANALYSIS
- THEA 1301 Dramatic Theory and Criticism


## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Digital Graphic Design Minor

Program Contact: Professor Sunyoung Lee

Academic Division: Communication and the Arts
Program Description:

The Digital Graphic Design Minor incorporates a range of knowledge needed to communicate visually in the ever growing digital world. Focus on problem solving through conceptual, creative and technical skill building is emphasized via the use of digital media. Students will gain exposure to design foundation and fundamental concepts, vocabulary, and methods of discipline.

## Minor Requirements

The Digital Graphic Design minor incorporates a range of practical knowledge involving problem solving; creative and aesthetical thinking; visualization skills; digital imaging; and information design. The total credit hours of this minor is 18 credits. The Digital Graphic Design minor program covers the aesthetic, historical, theoretical, and practical components of graphic design. A minor in digital graphic design is earned by completing the following courses:

- ART 0103 - DIGITAL GRAPHIC DESIGN 1
- ART 0113 - DIGITAL PHOTOGRAPHY I
- ART 0101 - DRAWING 1
- ART 1303 - DIGITAL GRAPHIC DESIGN II
- COMM 1307 - VISUAL COMMUNICATIONS
- ART 1304 - DIGITAL PHOTOGRAPHY II

OR

- ART 1301 - DRAWING II

Total credits required for the minor: 18

## Please be advised

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## English Minor

Program Contact: Dr. Donald Ulin
Academic Division: Communication and the Arts

## Program Description:

Whether you are interested in Paule Marshall, Virginia Woolf, Ernest Hemingway, or F. Scott Fitzgerald, our English program will further your interest in the world of literature. Our program offers broad survey courses, courses on the novel or the short story, a grounding in literary criticism and seminars that focus on important literary figures.

Some of our students choose to obtain elementary or secondary teaching certificates. Others pursue graduate education in literature and related disciplines.

## Minor Requirements

A minor in English can be earned by completing the following requirements:

- ENG 0110 - LITERATURE AND INTERPRETATION
- CLP 1315 - CRITICAL METHODS
- English electives (no more than one course at the 0100 level; two upper-level courses required - 12 Credits


## Total Credits: 18

## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Music Minor

## Program Contact: Professor Regina Gabriel

Academic Division: Communication and the Arts
Program Description: Our music minor is designed to give students a sense of the diverse nature of music and to allow them to study a broad range of musical styles and traditions. You will take courses in music history, theory, and performance, as well as electives that might include digital music, global music, or music in gaming and film. You will also have the opportunity to develop a more extended musical project in an area that you're most interested in.

## Requirements:

- MUSIC 0101 - ELEMENTS OF MUSIC
- MUSIC 0102 - INTRODUCTION TO MUSIC
- MUSIC 1339 - MUSICAL STYLES
- MUSIC 1401 - ADVANCED PRACTICUM IN MUSIC
- MUSIC 0195 - APPLIED MUSIC

3 credits

- Music Elective 3 credits


## Spanish Minor

Program Contact: Dr. Max Jensen
Academic Division: Communication and the Arts

## Program Description:

Spanish speakers are fast becoming the largest minority in the United States. You will find that the knowledge you will gain from our Spanish minor will be vastly useful to many majors, including business management, criminal justice, the health care professions, and education. If you're interested in our English or writing majors or our comparative literature minor, you will be enriched by the introduction to a wealth of exciting literature in Spanish that our Spanish minor provides. Whether your interest in this vibrant language is literary, cultural, or merely practical, a minor in Spanish will open doors of all kinds in today's workplace.

## Minor Requirements

- SPAN 0201 - INTERMEDIATE SPANISH 1
- SPAN 0202 - INTERMEDIATE SPANISH 2
- SPAN 1308-ADVANCED SPANISH
- CLP 0207 - SHORT FICTION IN SPANISH

Complete one of the following:

- CLP 0206 - HISPANIC LITERATURE (IN ENGLISH)
- CLP 1350 - LATINA WRITERS (in English)


## Complete one of the following:

- SPAN 1315 - SPANISH FOR PROFESSIONAL COMMUNICATIN

Total Credits: 18

## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Speech Communication Minor

Program Contact: Dr. Birney Young
Academic Division: Communication and the Arts

## Program Description:

The art of public speaking is only one focus of our speech communication minor. In the minor, you will also explore interpersonal, small group, and non-verbal communication. You will study and practice human communication techniques in a five-course minor designed to complement you major field of study. You will find that the communication skills examined in this minor are extremely valuable in today's workplace and in everyday life.

## Course Requirements in the Minor

Total Credits for Minor: 18. If you major in communication or public relations, you cannot choose a minor in speech communication.

## Required Courses

- COMM 0101 - INTRO TO HUMAN COMMUNICATION
- COMM 0104 - PUBLIC SPEAKING
- COMM 0120 - INTERCULTURAL COMMUNICATION

Three courses ( 9 credits) selected from the following (two must be upper level):

- COMM 0115 - INTERPERSONAL COMMUNICATION
- COMM 1308-ORGANIZATIONAL COMMUNICATION
- COMM 1309-ENVIRONMENTAL COMMUNICATIONS
- COMM 1410 - PERSUASION


## Theater Minor

## Program Contact: Dr. Kevin Ewert

Academic Division: Communication and the Arts

## Program Description:

Our theatre program will give you the opportunity to learn about theatre arts through academic course work and practical experience. Theatre courses include basic and advanced acting, stagecraft, play analysis, theater history, directing, and playwriting. You may also earn credit by being a cast or crew member in the two full-length productions that are staged each academic year.

## Minor Requirements

The minor in theater consists of 18 credits. The following requirements must be met:

## Core requirements in theater

- THEA 0101 - INTRODUCTION TO THEATRE
- THEA 0102 - THEATRE PRACTICUM - DESIGN AND STAGECRAFT and/or
- THEA 0103 - THEATRE PRACTICUM: PERFORMANCE
- THEA 0203 - PLAY ANALYSIS

Credits: 12

## Electives in theatre

- Two additional theater courses, one of which must be an upper-level course - 6 Credits


## Total Credits: 18

## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Writing Minor

Program Contact: Dr. Nancy McCabe

Academic Division: Communication and the Arts

## Program Description:

Our writing program will give you a background in a wide variety of writing types. We will help you develop language and organizational skills so you can function in creative and/or professional environments.

## Minor Requirements

- Writing core courses - Choose 6 Credits from this list:
- COMM 0106
- COMM 0108
- WRITNG 0106
- WRITNG 0107
- WRITNG 0108
- WRITNG 0220
- Writing electives - 9 Credits ( 6 credits must be upper level)


## Total Credits: 15

## Please be advised

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## Pre-Art Therapy

## - Program Contact:

Dr. Warren Fass
Professor Jeff Guterman

## Program Description:

Would you like to become an art therapist?
"Art therapists use the process of self-expression, and the resulting artwork to help clients understand their emotional conflicts, develop social skills, improve self-esteem, manage>addictions, reduce anxiety, and restore normal function to their lives." --Careers in Psychology

If so, you will need to earn a master's degree. But first, you will need to take a number of courses on our campus before you apply to a graduate program. The number of courses
you will need to take here will depend on the school you eventually apply to. And, while
you're on our campus, we will help arrange an internship to give you that "extra edge."
You may earn a bachelor's degree in psychology with a minor in art or a bachelor's degree in interdisciplinary arts with a minor in psychology or counseling psychology before you apply to a master's program. Since each graduate school may have other specific requirements, we suggest you check with the school of your choice before you finish your bachelor's degree.

What you can do with a degree in Pre-Art Therapy

## Program Requirements:

BS, Psychology with minor in Art OR
BA, Interdisciplinary Arts with minor in Psychology or Counseling Psychology

## Pre-Music Therapy

## - Program Contact:

Dr. Warren Fass
Professor Jeff Guterman

## Program Description:

Would you like to become a music therapist?
"Music Therapy is an established health profession in which music is used within a therapeutic relationship to address physical, emotional, cognitive, and social needs of individuals. After assessing the strengths and needs of each client, the qualified music therapist provides the indicated treatment including creating, singing, moving to, and/or listening to music." -- American Music Therapy Association

If so, you can begin your journey at Pitt-Bradford through the Pre-Music Therapy track. During your time here, you'll work with your instructors on a course of study that prepares you for the audition process to a master's program in Music Therapy. You may earn a bachelor's degree in psychology with a minor in music or a bachelor's degree in interdisciplinary arts with a minor in psychology or counseling psychology before you apply to a master's program. Since each graduate school may have other specific requirements, we suggest you consult with the school of your choice and your advisor at Pitt-Bradford before you finish your bachelor's degree.

## Program Requirements:

## BS, Psychology with minor in Music OR

BA, Interdisciplinary Arts with minor in Psychology or Counseling Psychology

# The Division of Management and Education 

## Major

## Accounting, BS

Contact: Professor John Crawford

## Degree Requirements

Courses within the major

- ACCT 0201 - FINANCIAL ACCOUNTING CONCEPTS
- ACCT 0202 - MANAGERIAL ACCOUNTING CONCEPTS
- ACCT 1301 - INTERMEDIATE ACCOUNTING 1
- ACCT 1302 - INTERMEDIATE ACCOUNTING 2
- ACCT 1312 - INTERMEDIATE ACCOUNTING 3
- ACCT 1303-STRATEGIC COST MANAGEMENT
- ACCT 1304 - FEDERAL INCOME TAXES
- ACCT 1306 - FEDERAL CORPORATE INCOME TAXES
- ACCT 1320-ACCOUNTING INFORMATION SYSTEMS
- ACCT 1305 - AUDITING
- ACCT 1401 - ADVANCED ACCOUNTING

Credits: 33

Other Business coursework

- ECON 0102 - INTRODUCTION TO MICROECONOMICS
- ECON 0103 - INTRODUCTION TO MACROECONOMICS
- ECON 0204 - STATISTICAL METHODS
- FIN 1301 - CORPORATE FINANCE
- FIN 1302 - INVESTMENTS or
- FIN 1303 - ANALYSIS OF FINANCIAL STATEMENTS
- MIS 0103 - COMPUTER APPLICATIONS FOR MANAGEMENT
- MIS 0208 - BUSINESS INFORMATION SYSTEMS
- MRKT 1301 - PRINCIPLES OF MARKETING
- MGMT 0110 - PRINCIPLES OF MANAGEMENT
- MGMT 1304 - BUSINESS LAW
- MGMT 1451 - CAPSTONE: STRATEGIC MANAGEMENT

Credits: 34
Coursework outside the major

- MATH 0136 - APPLIED CALCULUS

Credits: 7

## Total credits required for the major: 74

## General Education Program Requirements and Electives-Variable

(See General Education Program and General Requirements for the Bachelor's Degree under Academic Policies and Guidelines for further details.)

## Please be advised

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## Suggested Course of Study

## First Year

- ENG 0101 - ENGLISH COMPOSITION 1
- FS 0104 - FIRST YEAR TRANSITION SEMINAR
- ENG 0102 - ENGLISH COMPOSITION 2
- MGMT 0110 - PRINCIPLES OF MANAGEMENT
- ECON 0102 - INTRODUCTION TO MICROECONOMICS
- MATH 0136 - APPLIED CALCULUS
- MIS 0103 - COMPUTER APPLICATIONS FOR MANAGEMENT

Credits: 31

## Second Year

- ACCT 0201 - FINANCIAL ACCOUNTING CONCEPTS
- ACCT 0202 - MANAGERIAL ACCOUNTING CONCEPTS
- ECON 0204 - STATISTICAL METHODS
- MIS 0208 - BUSINESS INFORMATION SYSTEMS
- COMM 0104 - PUBLIC SPEAKING
- General education or elective courses - 11 Credits
- ECON 0103 - INTRODUCTION TO MACROECONOMICS

Credits: 32

## Third Year

- FIN 1301 - CORPORATE FINANCE
- FIN 1303 - ANALYSIS OF FINANCIAL STATEMENTS
- MRKT 1301 - PRINCIPLES OF MARKETING
- MGMT 1304 - BUSINESS LAW
- ACCT 1301 - INTERMEDIATE ACCOUNTING 1
- ACCT 1302 - INTERMEDIATE ACCOUNTING 2
- ACCT 1303-STRATEGIC COST MANAGEMENT
- ACCT 1304 - FEDERAL INCOME TAXES
- ACCT 1306 - FEDERAL CORPORATE INCOME TAXES
- General education or elective courses - 3 Credits

Credits: 30

Fourth Year

- ACCT 1312 - INTERMEDIATE ACCOUNTING 3
- ACCT 1320-ACCOUNTING INFORMATION SYSTEMS
- ACCT 1305-AUDITING
- ACCT 1401 - ADVANCED ACCOUNTING
- MGMT 1451 - CAPSTONE: STRATEGIC MANAGEMENT
- General education or elective courses - 15 Credits

Credits: 30

## Biology Education 7-12, BS

Contact: Dr. William Clark

## Degree Requirements

## Course Requirements in the Major

All courses in the major must be completed with a $C$ - or higher and a 3.0 grade point average must be maintained, in the major and overall.

- BIOL 0101 - INTRODUCTION TO CELL AND MOLECULAR BIOLOGY
- BIOL 0102 - INTRODUCTION TO BIODIVERSITY
- BIOL 0203 - GENETICS
- BIOL 0217 - PRINCIPLES OF ECOLOGY AND EVOLUTION
- BIOL 1451 - CAPSTONE: BIOLOGY
- CHEM 0101 - GENERAL CHEMISTRY 1
- CHEM 0102 - GENERAL CHEMISTRY 2
- MATH 0132 - PRECALCULUS or
- MATH 0136 - APPLIED CALCULUS or
- MATH 0140 - CALCULUS 1
- MATH (Second college-level math required) - 3-4 Credits
- PHYS 0101 - INTRODUCTION TO PHYSICS 1 or
- PHYS 0103 - CONCEPTS OF MODERN PHYSICS or
- PHYS 0201 - FOUNDATIONS OF PHYSICS 1
- EDUC 0204 - INTRODUCTION TO EDUCATION
- EDUC 0215 - ENGLISH LANGUAGE LEARNERS
- EDUC 0220 - SPECIAL EDUCATION LAW
- EDUC 0235 - INSTRUCTIONAL DESIGN
- EDUC 0275-ADOLESCENT LITERATURE
- EDUC 1301 - INSTRUCTIONAL TECHNOLOGY
- EDUC 1302 - ASSESSMENT TECHNIQUES
- EDUC 1307 - SECONDARY METHODS
- EDUC 1325 - DEVELOPMENT OF CHILDREN WITH EXCEPTIONAL NEEDS
- EDUC 1330 - EDUCATING CHILDREN WITH EXCEPTIONAL NEEDS
- EDUC 1334 - LITERACIES ACROSS THE MIDDLE AND SECONDARY CURRICULUM
- EDUC 1345 - EDUCATIONAL THEORIES AND PRACTICES
- EDUC 1350 - EDUCATIONAL PSYCH \& MEASUREMENT
- EDUC 1481 - STUDENT TEACHING


## General Education Program Requirements and Requirements-Variable

(See General Education Program and General Requirements for the Bachelor's Degree under Academic Policies and Guidelines for further details.)

## Please be advised

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## Suggested Course of Study

## First Year

- ENG 0101 - ENGLISH COMPOSITION 1
- FS 0104 - FIRST YEAR TRANSITION SEMINAR
- ENG 0102 - ENGLISH COMPOSITION 2
- BIOL 0101 - INTRODUCTION TO CELL AND MOLECULAR BIOLOGY
- BIOL 0102 - INTRODUCTION TO BIODIVERSITY
- MATH 0132 - PRECALCULUS

MATH 0136 or MATH 0140

- EDUC 0204 - INTRODUCTION TO EDUCATION
- MATH ELECTIVE
- HISTORY, CULTURE, OR PHILOSOPHICAL INQUIRY
- PEDUC COURSE
- ENG LITERATURE ELECTIVE


## Second Year

- BIOL 0203 - GENETICS
- CHEM 0101 - GENERAL CHEMISTRY 1
- CHEM 0102 - GENERAL CHEMISTRY 2
- PSY 0101 - INTRODUCTION TO PSYCHOLOGY
- EDUC 0220 - SPECIAL EDUCATION LAW
- EDUC 0235 - INSTRUCTIONAL DESIGN
- EDUC 0275 - ADOLESCENT LITERATURE

GE History, Cultures or Phil.
GE Beh.Econ or PS
GE Arts

- EDUC 1325 - DEVELOPMENT OF CHILDREN WITH EXCEPTIONAL NEEDS


## Third Year

- EDUC 1301 - INSTRUCTIONAL TECHNOLOGY
- EDUC 1302-ASSESSMENT TECHNIQUES
- EDUC 1345 - EDUCATIONAL THEORIES AND PRACTICES
- EDUC 1334 - LITERACIES ACROSS THE MIDDLE AND SECONDARY CURRICULUM
- EDUC 1330 - EDUCATING CHILDREN WITH EXCEPTIONAL NEEDS
- BIOL 0217 - PRINCIPLES OF ECOLOGY AND EVOLUTION History Elective
- BIOL 1451 - CAPSTONE: BIOLOGY 1 UL BIOL elective course
- PHYS 0101 - INTRODUCTION TO PHYSICS 1 OR PHYS 0103 or 0201
- BEHAVORIAL, ECONOMIC OR POLITICAL SCIENCE


## Fourth Year

- BIOL 1451-CAPSTONE: BIOLOGY
- BIOL UPPER-LEVEL ELECTIVE
- EDUC 1307 - SECONDARY METHODS
- EDUC 1350 - EDUCATIONAL PSYCH \& MEASUREMENT
- EDUC 1481 - STUDENT TEACHING

Total Credits: 129

## Business Management, BS

## Contact: Dr. Amy Gresock

The business management major consists of a 120-credit curriculum leading to a Bachelor of Science degree. Consistent with the overall mission of the University of Pittsburgh at Bradford, the business management major includes a liberal arts core curriculum, much of which is taken during the first two years of study. Business management majors also take required foundation courses across the fundamental areas of business. Students specialize in a particular area by taking electives from one of the following areas of concentration:

- Accounting
- Finance
- International Business
- Marketing
- Human Resource Management
- Hospitality Management
- Sports Management


## Degree Requirements

Course requirements in the major

- MGMT 0110 - PRINCIPLES OF MANAGEMENT
- MIS 0103 - COMPUTER APPLICATIONS FOR MANAGEMENT
- ACCT 0201 - FINANCIAL ACCOUNTING CONCEPTS
- ACCT 0202 - MANAGERIAL ACCOUNTING CONCEPTS
- MIS 0208 - BUSINESS INFORMATION SYSTEMS
- FIN 1301 - CORPORATE FINANCE
- MRKT 1301 - PRINCIPLES OF MARKETING
- MGMT 1303-BUSINESS ETHICS
- MGMT 1304 - BUSINESS LAW
- MGMT 1305-INTERNATIONAL MANAGEMENT
- MGMT 1451 - CAPSTONE: STRATEGIC MANAGEMENT
- ECON 0102 - INTRODUCTION TO MICROECONOMICS
- ECON 0103 - INTRODUCTION TO MACROECONOMICS
- ECON 0204 - STATISTICAL METHODS
- ECON 0206 - INTERMEDIATE MICROECONOMICS
- MATH 0136 - APPLIED CALCULUS
- COMM 0104 - PUBLIC SPEAKING

Credits: 54 plus required concentration (total credits $=66-69$ )

## Choose One of the Following Concentrations:

Accounting Concentration Required Courses:

- ACCT 1301 - INTERMEDIATE ACCOUNTING 1
- ACCT 1302 - INTERMEDIATE ACCOUNTING 2
- ACCT 1303-STRATEGIC COST MANAGEMENT
- ACCT 1304 - FEDERAL INCOME TAXES

Finance Concentration Required Courses:

- FIN 1302 - INVESTMENTS
- FIN 1303 - ANALYSIS OF FINANCIAL STATEMENTS
- FIN 1304 - FINANCL MARKETS AND INSTITUTIONS
- FIN 1401 - INTERNATIONAL FINANCE
- An UL ACCT or FIN elective

International Business Concentration Required Courses:

- GEOG 0101 - WORLD REGIONAL GEOGRAPHY
- MGMT 1449 - ECONOMIC SYSTEMS
- FIN 1401 - INTERNATIONAL FINANCE
- MRKT 1420-INTERNATIONAL MARKETING


## Marketing Concentration Required Courses: (Take ANY 4)

Choose any four of the following courses:

- MRKT 1410 - MARKETING RESEARCH
- MRKT 1405 - MARKETING MANAGEMENT
- MRKT 1415-CONSUMER BEHAVIOR
- MRKT 1420 - INTERNATIONAL MARKETING
- MRKT 1499 - INTERNSHIP: MARKETING
- HPRED 1301 - SPORTS MARKETING
- HMGT 1370 - HOSPITALITY AND TOURISM MARKETING


## Human Resource Management Concentration Requirements:

Choose any four of the following courses:

- SOC 0101 - INTRODUCTION TO SOCIOLOGY
- MGMT 1301 - ORGANIZATIONAL BEHAVIOR
- MGMT 1309 - MANAGING WORKPLACE DIVERSITY
- MGMT 1320 - HUMAN RESOURCES MANAGEMENT
- MGMT 1449 - ECONOMIC SYSTEMS


## Hospitality Management Concentration Requirements:

- HMGT 0101 - INTRODUCTION TO HOSPITALITY MANAGEMENT
- HMGT 0210 - LEGAL ISSUES IN THE HOSPITALITY AND TOURISM INDUSTRY
- HMGT 0220 - FOODSERVICE MANAGEMENT
- HMGT 1310 - HOTEL OPERATIONS


## Sports Management Concentration Required Courses:

Choose four courses from the following list.

- HPRED 0210 - THE GOVERNANCE AND MANAGEMENT OF SPORT
- HPRED 1401 - LEGAL LIABILITY IN SPORTS
- HPRED 1407 - FACILITY AND EVENT MANAGEMENT
- HPRED 1301 - SPORTS MARKETING
- HPRED 1310 - ETHICS AND LEADERSHIP IN SPORT


## Please be advised

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## Suggested Course of Study

First Year

- ENG 0101 - ENGLISH COMPOSITION 1
- FS 0104 - FIRST YEAR TRANSITION SEMINAR
- ENG 0102 - ENGLISH COMPOSITION 2
- MGMT 0110 - PRINCIPLES OF MANAGEMENT
- ECON 0102 - INTRODUCTION TO MICROECONOMICS
- ECON 0103 - INTRODUCTION TO MACROECONOMICS
- MATH 0136 - APPLIED CALCULUS
- MIS 0103-COMPUTER APPLICATIONS FOR MANAGEMENT

Credits: 28

Second Year

- ACCT 0201 - FINANCIAL ACCOUNTING CONCEPTS
- ACCT 0202 - MANAGERIAL ACCOUNTING CONCEPTS
- ECON 0204 - STATISTICAL METHODS
- MIS 0208 - BUSINESS INFORMATION SYSTEMS
- COMM 0104 - PUBLIC SPEAKING

Credits: 31

Third Year

- FIN 1301 - CORPORATE FINANCE
- MRKT 1301 - PRINCIPLES OF MARKETING
- MGMT 1303-BUSINESS ETHICS
- MGMT 1304 - BUSINESS LAW
- ECON 0206 - INTERMEDIATE MICROECONOMICS

Credits: 30

## Fourth Year

- MGMT 1451-CAPSTONE: STRATEGIC MANAGEMENT
- MGMT 1305-INTERNATIONAL MANAGEMENT
- MGMT 1449 - ECONOMIC SYSTEMS

Credits: 28

## Business, Computer, and Information Technology PreK-12, BS

Contact: Dr. William Clark

## Degree Requirements

Course Requirements in the Major

All courses in the major must be completed with a C-or higher and a 3.0 grade point average must be maintained, in the major and overall.

- ACCT 0201 - FINANCIAL ACCOUNTING CONCEPTS
- ACCT 0202 - MANAGERIAL ACCOUNTING CONCEPTS
- ECON 0101 - ECONOMICS IN THE MODERN WORLD
- ECON 0204 - STATISTICAL METHODS

OR MATH 0133

- FIN 1301 - CORPORATE FINANCE
- MATH 0136 - APPLIED CALCULUS
- MIS 0103 - COMPUTER APPLICATIONS FOR MANAGEMENT
- MIS 0208 - BUSINESS INFORMATION SYSTEMS
- MGMT 0110 - PRINCIPLES OF MANAGEMENT
- MGMT 1304 - BUSINESS LAW
- MGMT 1451 - CAPSTONE: STRATEGIC MANAGEMENT
- MRKT 1301 - PRINCIPLES OF MARKETING
- EDUC 0204 - INTRODUCTION TO EDUCATION
- EDUC 0215 - ENGLISH LANGUAGE LEARNERS
- EDUC 0220 - SPECIAL EDUCATION LAW
- EDUC 0235 - INSTRUCTIONAL DESIGN
- PSY 0101 - INTRODUCTION TO PSYCHOLOGY
- EDUC 0255 - READINGS IN CHILDREN'S LITERTR or
- EDUC 0275 - ADOLESCENT LITERATURE
- EDUC 1301 - INSTRUCTIONAL TECHNOLOGY
- EDUC 1307 - SECONDARY METHODS
- EDUC 1325 - DEVELOPMENT OF CHILDREN WITH EXCEPTIONAL NEEDS
- EDUC 1330 - EDUCATING CHILDREN WITH EXCEPTIONAL NEEDS
- EDUC 1334 - LITERACIES ACROSS THE MIDDLE AND SECONDARY CURRICULUM
- EDUC 1345 - EDUCATIONAL THEORIES AND PRACTICES
- EDUC 1350 - EDUCATIONAL PSYCH \& MEASUREMENT
- EDUC 1481 - STUDENT TEACHING
- MGMT 1303-BUSINESS ETHICS

Or

- MGMT 1305-INTERNATIONAL MANAGEMENT


## General Education Program Requirements and Requirements-Variable

(See General Education Program and General Requirements for the Bachelor's Degree under Academic Policies and Guidelines for further details.)

## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Suggested Course of Study

## First Year

- ENG 0101 - ENGLISH COMPOSITION 1
- FS 0104 - FIRST YEAR TRANSITION SEMINAR
- ENG 0102 - ENGLISH COMPOSITION 2
- MATH 0136 - APPLIED CALCULUS
- ECON 0101 - ECONOMICS IN THE MODERN WORLD
- MGMT 0110 - PRINCIPLES OF MANAGEMENT
- EDUC 0235 - INSTRUCTIONAL DESIGN
- EDUC 0204 - INTRODUCTION TO EDUCATION
- MIS 0103 - COMPUTER APPLICATIONS FOR MANAGEMENT

Life or Physical Science

- PSY 0101 - INTRODUCTION TO PSYCHOLOGY


## Second Year

- EDUC 0215 - ENGLISH LANGUAGE LEARNERS
- EDUC 0220 - SPECIAL EDUCATION LAW
- EDUC 0255 - READINGS IN CHILDREN'S LITERTR OR EDUC 0275
- ACCT 0201 - FINANCIAL ACCOUNTING CONCEPTS
- ACCT 0202 - MANAGERIAL ACCOUNTING CONCEPTS
- COMM 0101 - INTRO TO HUMAN COMMUNICATION
- MIS 0208 - BUSINESS INFORMATION SYSTEMS

GE Literature

- ECON 0204 - STATISTICAL METHODS
- PSY 0101 - INTRODUCTION TO PSYCHOLOGY

PEDC course

## Third Year

- EDUC 1345 - EDUCATIONAL THEORIES AND PRACTICES
- EDUC 1350 - EDUCATIONAL PSYCH \& MEASUREMENT
- EDUC 1325-DEVELOPMENT OF CHILDREN WITH EXCEPTIONAL NEEDS
- EDUC 1334 - LITERACIES ACROSS THE MIDDLE AND SECONDARY CURRICULUM
- EDUC 1330 - EDUCATING CHILDREN WITH EXCEPTIONAL NEEDS
- FIN 1301 - CORPORATE FINANCE
- MRKT 1301 - PRINCIPLES OF MARKETING
- MGMT 1304-BUSINESS LAW

GE History
GE History Culture or Phil
GE Life or Physical Science

## Fourth Year

- EDUC 1301 - INSTRUCTIONAL TECHNOLOGY
- EDUC 1307 - SECONDARY METHODS
- EDUC 1481 - STUDENT TEACHING
- MGMT 1401 - BUSINESS SOCIETY \& INT'L ENVRN
- MGMT 1451-CAPSTONE: STRATEGIC MANAGEMENT GE Arts


## Chemistry Education 7-12, BS

Contact: Dr. William Clark

## Degree Requirements

## Course Requirements in the Major

All courses in the major must be completed with a C- or higher and a 3.0 grade point average must be maintained, in the major and overall.

- CHEM 0101 - GENERAL CHEMISTRY 1
- CHEM 0102 - GENERAL CHEMISTRY 2
- CHEM 0201 - INTRODUCTION TO ANALYTICAL CHEMISTRY
- CHEM 0206 - ORGANIC CHEMISTRY 1
- CHEM 0207-ORGANIC CHEMISTRY 1 LAB
- CHEM 0208 - ORGANIC CHEMISTRY 2
- CHEM 0209 - ORGANIC CHEMISTRY 2 LAB
- CHEM 1301 - PHYSICAL CHEMISTRY 1
- CHEM 1302 - PHYSICAL CHEMISTRY 2
- CHEM 1305 - ANALYTICAL INSTRUMENTATION
- CHEM 1451 - CAPSTONE: CHEMISTRY
- MATH 0140 - CALCULUS 1
- MATH 0150 - CALCULUS 2
- PHYS 0201 - FOUNDATIONS OF PHYSICS 1
- PHYS 0202 - FOUNDATIONS OF PHYSICS 2
- EDUC 0204 - INTRODUCTION TO EDUCATION
- EDUC 0215 - ENGLISH LANGUAGE LEARNERS
- EDUC 0220 - SPECIAL EDUCATION LAW
- EDUC 0235 - INSTRUCTIONAL DESIGN
- EDUC 0275 - ADOLESCENT LITERATURE
- EDUC 1301 - INSTRUCTIONAL TECHNOLOGY
- EDUC 1307 - SECONDARY METHODS
- EDUC 1325 - DEVELOPMENT OF CHILDREN WITH EXCEPTIONAL NEEDS
- EDUC 1330 - EDUCATING CHILDREN WITH EXCEPTIONAL NEEDS
- EDUC 1334 - LITERACIES ACROSS THE MIDDLE AND SECONDARY CURRICULUM
- EDUC 1345 - EDUCATIONAL THEORIES AND PRACTICES
- EDUC 1350 - EDUCATIONAL PSYCH \& MEASUREMENT
- EDUC 1481 - STUDENT TEACHING


## General Education Program Requirements and Requirements-Variable

(See General Education Program and General Requirements for the Bachelor's Degree under Academic Policies and Guidelines for further details.)

## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become
licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Suggested Course of Study

## First Year

- ENG 0101 - ENGLISH COMPOSITION 1
- FS 0104 - FIRST YEAR TRANSITION SEMINAR
- ENG 0102 - ENGLISH COMPOSITION 2
- CHEM 0101 - GENERAL CHEMISTRY 1
- CHEM 0102 - GENERAL CHEMISTRY 2
- MATH 0140 - CALCULUS 1
- MATH 0150 - CALCULUS 2
- EDUC 0204 - INTRODUCTION TO EDUCATION
- PSY 0101 - INTRODUCTION TO PSYCHOLOGY

History elective

## Second Year

- CHEM 0201 - INTRODUCTION TO ANALYTICAL CHEMISTRY
- CHEM 0206 - ORGANIC CHEMISTRY 1
- CHEM 0207 - ORGANIC CHEMISTRY 1 LAB
- CHEM 0208 - ORGANIC CHEMISTRY 2
- CHEM 0209 - ORGANIC CHEMISTRY 2 LAB
- PHYS 0201 - FOUNDATIONS OF PHYSICS 1
- PHYS 0202 - FOUNDATIONS OF PHYSICS 2
- EDUC 0235 - INSTRUCTIONAL DESIGN
- EDUC 1325 - DEVELOPMENT OF CHILDREN WITH EXCEPTIONAL NEEDS

Ge Life Science History Culture or Phil

## Third Year

- EDUC 1345 - EDUCATIONAL THEORIES AND PRACTICES
- EDUC 1350 - EDUCATIONAL PSYCH \& MEASUREMENT
- EDUC 1334 - LITERACIES ACROSS THE MIDDLE AND SECONDARY CURRICULUM
- EDUC 1330 - EDUCATING CHILDREN WITH EXCEPTIONAL NEEDS
- EDUC 0215 - ENGLISH LANGUAGE LEARNERS
- CHEM 1301-PHYSICAL CHEMISTRY 1
- CHEM 1302 - PHYSICAL CHEMISTRY 2
- CHEM 1305 - ANALYTICAL INSTRUMENTATION

GE Beh, Econ or PS
Ge Literature PEDC credit GE Arts

## Fourth Year

- EDUC 1307 - SECONDARY METHODS
- EDUC 1301 - INSTRUCTIONAL TECHNOLOGY
- EDUC 0275-ADOLESCENT LITERATURE
- EDUC 1481 - STUDENT TEACHING
- CHEM 1451 - CAPSTONE: CHEMISTRY

GE Beh, Econ or PS

## Computer Information Systems and Technology, BS

## Contact: Dr. Ken Wang

The Computer Information Systems and Technology (CIS\&T) major consists of a 120-credit curriculum leading to a Bachelor of Science degree. CIS\&T majors gain hands-on experience as well as conceptual knowledge in a broad range of information technologies and systems. Foundation courses focus on specific technologies while upper level courses concentrate on application and integration of technologies in the business environment.

## Degree Requirements

Course requirements in the major

- CIST 0150 - FUNDAMENTALS OF PROGRAMMING
- CIST 0163 - INTRODUCTION TO WEB PROGRAMMING
- CIST 0201 - INTERMEDIATE PROGRAMMING USING JAVA
- CIST 0265 - OBJECT ORIENTED PROGRAMMING


## Credits: 9

Students are required to take ALL of the following CIS\&T core courses:

- CIST 0161 - THE TECHNOLOGY OF COMPUTING
- CIST 0165 - NETWORKING 1
- CIST 0166 - NETWORKING 2
- CIST 0261 - COMPUTER SECURITY
- CIST 0262 - SYSTEMS ADMINISTRATION

Credits: 15
Students are required to take ALL of the following CIS\&T advanced courses:

- CIST 1307 - DATABASE DESIGN AND MANAGEMENT
- CIST 1310 - SYSTEMS ANALYSIS AND DESIGN
- CIST 1311 - ELECTRONIC COMMERCE
- CIST 1341 - LINUX OPERATING SYSTEM
- CIST 1408 - PROJECT MANAGEMENT IN INFORMATION TECHNOLOGY
- CIST 1451 - CAPSTONE: COMPUTER INFORMATION SYSTEMS AND TECHNOLOGY
- CIST 1499 - INTERNSHIP: COMPUTER INFORMATION SYSTEMS AND TECHNOLOGY

Credits: 21
Students can choose 4 approved electives listed below - OR choose one of the CIS\&T concentrations

- CIST 1301 - ADVANCED WEB DEVELOPMENT
- CIST 1325 - INTRODUCTION TO SUPPLY CHAIN MANAGEMENT
- CIST 1326 - DIGITAL FORENSICS
- CIST 1327 - INTRUSION DETECTION \& INCIDENT RESPONSE
- CIST 1328 - NETWORK SECURITY \& CRYPTOGRAPHY
- CIST 1342 - HOST SCRIPTING
- CIST 1344 - VIRTUALIZATION \& CLOUD TECHNOLOGY
- CIST 1400 - POLICY AND COMPLIANCE IN CYBERSECURITY
- CIST 1401 - INFORMATION ASSURANCE
- CIST 1402 - BUSINESS INTELLIGENCE AND ANALYTICS
- CIST 1415 - DATA ANALYTICS
- CIST 1421 - MOBILE APPLICATION PROGRAMMING
- CIST 1422 - GAME DESIGN \& PROGRAMMING
- CIST 1423 - VIRTUAL REALITY PROGRAMMING AND TECHNOLOGY
- CIST 1432 - ETHICAL HACKING
- CIST 1443 - NETWORK \& SYSTEM ADMINISTRATION PRACTICUM
- EST 1301 - SENSORS AND AUTOMATION

Credits: 12

Students are also required to take one of the following statistical methods course:

- MATH 0133 - STATISTICS
- ECON 0204 - STATISTICAL METHODS
- PSY 0201 - STATISTICS

Credits: 4

## Total credits required for the major: 61

## General Education Program Requirements and Electives-Variable

(See General Education Program and General Requirements for the Bachelor's Degree under Academic Policies and Guidelines for further details.).

## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Suggested Course of Study

## First Year

- ENG 0101 - ENGLISH COMPOSITION 1
- FS 0104 - FIRST YEAR TRANSITION SEMINAR
- CIST 0150 - FUNDAMENTALS OF PROGRAMMING
- CIST 0161 - THE TECHNOLOGY OF COMPUTING
- CIST 0165 - NETWORKING 1
- ENG 0102 - ENGLISH COMPOSITION 2
- CIST 0163 - INTRODUCTION TO WEB PROGRAMMING
- CIST 0166 - NETWORKING 2
- MATH 0098 - COLLEGE ALGEBRA 2 or
- MATH 0110 - FUNDAMENTALS OF MATHEMATICS GE Elective course-3 credits

Credits: 30

## Second Year

- CIST 0261 - COMPUTER SECURITY
- CIST 0262 - SYSTEMS ADMINISTRATION
- CIST 0265 - OBJECT ORIENTED PROGRAMMING
- MATH 0133 - STATISTICS or
- ECON 0204 - STATISTICAL METHODS

General Education or elective credits 19

Credits: 31

Third Year

- CIST 1307 - DATABASE DESIGN AND MANAGEMENT
- CIST 1341 - LINUX OPERATING SYSTEM
- CIST 1310 - SYSTEMS ANALYSIS AND DESIGN
- CIST Electives - 6 Credits
- General education or elective courses - 13 Credits
- CIST 1311 - ELECTRONIC COMMERCE

Credits: 31

## Fourth Year

- CIST 1408 - PROJECT MANAGEMENT IN INFORMATION TECHNOLOGY
- CIST 1499-INTERNSHIP: COMPUTER INFORMATION SYSTEMS AND TECHNOLOGY
- CIST 1451 - CAPSTONE: COMPUTER INFORMATION SYSTEMS AND TECHNOLOGY
- CIST Elective - 9 Credits
- General education or elective courses - 6 Credits

Credits: 28

## Application Software Development Concentration

## Concentration Requirements

For the Application Software Development concentration, CIS\&T majors must complete a minimum of 12 credits from the following selection of courses in addition to completing the core curriculum:

Choose at least 4 from the following:

- CIST 1301 - ADVANCED WEB DEVELOPMENT
- EST 1301 - SENSORS AND AUTOMATION
- CIST 1402 - BUSINESS INTELLIGENCE AND ANALYTICS
- CIST 1415 - DATA ANALYTICS
- CIST 1421 - MOBILE APPLICATION PROGRAMMING
- CIST 1422 - GAME DESIGN \& PROGRAMMING
- CIST 1423 - VIRTUAL REALITY PROGRAMMING AND TECHNOLOGY


## Total Credits: 12

## Cybersecurity and Digital Forensics Concentration

## Concentration Requirements

For the Cybersecurity and Digital Forensics concentration, CIS\&T majors must complete a minimum of 12 credits from the following selection of courses in addition to completing the core curriculum:

Choose at least 4 from the following:

- CIST 1326 - DIGITAL FORENSICS
- CIST 1327 - INTRUSION DETECTION \& INCIDENT RESPONSE
- CIST 1328 - NETWORK SECURITY \& CRYPTOGRAPHY
- CIST 1432 - ETHICAL HACKING
- CIST 1344 - VIRTUALIZATION \& CLOUD TECHNOLOGY
- CIST 1401 - INFORMATION ASSURANCE
- CIST 1400 - POLICY AND COMPLIANCE IN CYBERSECURITY

Total Credits: 12

## Systems and Network Administration Concentration

## Concentration Requirements

For the Systems and Network Administration concentration, CIS\&T majors must complete a minimum12 credits from the following selection of courses in addition to completing the core curriculum:

Choose at least 4 from the following:

- CIST 1342 - HOST SCRIPTING
- CIST 1344 - VIRTUALIZATION \& CLOUD TECHNOLOGY
- CIST 1327 - INTRUSION DETECTION \& INCIDENT RESPONSE
- CIST 1328 - NETWORK SECURITY \& CRYPTOGRAPHY

Total Credits: 12

## Early Level Education PreK-4, BS

## Contact: Dr. Patricia Lanzon

## Degree Requirements

- Art or Music or Theater (GE) - 3 Credits
- Life/Environment Science GE - 3-4 Credits
- Physical Science/Environment Science (GE) - 3-4 Credits
- MATH (GE) - 3-4 Credits
- Math Elective - 3 Credits
- Economics or Political Science Elective-3 Credits
- HIST 0106 - UNITED STATES HISTORY 1 or
- HIST 0107 - UNITED STATES HISTORY 2
- GEOG 0101 - WORLD REGIONAL GEOGRAPHY or
- GEOG 0102 - GEOGRAPHY OF NORTH AMERICA
- PSY 0101 - INTRODUCTION TO PSYCHOLOGY
- SOC 0101 - INTRODUCTION TO SOCIOLOGY
- EDUC 0204 - INTRODUCTION TO EDUCATION
- EDUC 0215 - ENGLISH LANGUAGE LEARNERS
- EDUC 0220 - SPECIAL EDUCATION LAW
- EDUC 0225 - THE DEVELOPING CHILD: BIRTH-PRIMARY YEARS
- EDUC 0230 - FAMILY AND COMMUNITY RELATIONSHIPS
- EDUC 0235 - INSTRUCTIONAL DESIGN
- EDUC 0255 - READINGS IN CHILDREN'S LITERTR
- EDUC 1301 - INSTRUCTIONAL TECHNOLOGY
- EDUC 1302 - ASSESSMENT TECHNIQUES
- EDUC 1306 - CLASSROOM MANAGEMENT
- EDUC 1309 - DIFFERENTIATED READING INSTRUCTION AND INTERVENTION (PREK-4) (PreK-1)
- EDUC 1312 - LANGUAGE DEVELOPMENT AND EARLY LITERACY FOUNDATIONS (PREK-1) (PreK-1)
- EDUC 1318 - EARLY MATH FOUNDATIONS (PREK-1) (PreK-1)
- EDUC 1320 - ART, MUSIC, AND MOVEMENT METHODS (PREK-4) (Pre-K)
- EDUC 1322 - SOCIAL STUDIES METHODS (PREK-4) (PreK-4)
- EDUC 1324 Math Methods for Primary Grades (2-4) - 3 Credits
- EDUC 1325 - DEVELOPMENT OF CHILDREN WITH EXCEPTIONAL NEEDS
- EDUC 1327 - SCIENCE METHODS (PREK-4)
- EDUC 1330 - EDUCATING CHILDREN WITH EXCEPTIONAL NEEDS
- EDUC 1332 - LITERACY FOUNDATIONS FOR PRIMARY GRADES (2-4) (2-4)
- EDUC 1345 - EDUCATIONAL THEORIES AND PRACTICES
- EDUC 1350 - EDUCATIONAL PSYCH \& MEASUREMENT
- EDUC 1451 - CAPSTONE: EDUCATION
- EDUC 1481 - STUDENT TEACHING


## General Education Program Requirements and Requirements-Variable

(See General Education Program and General Requirements for the Bachelor's Degree under Academic Policies and Guidelines for further details.)

## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Suggested Course of Study

## First Year

- ENG 0101 - ENGLISH COMPOSITION 1
- FS 0104 - FIRST YEAR TRANSITION SEMINAR
- ENG 0102 - ENGLISH COMPOSITION 2
- MATH 0098 - COLLEGE ALGEBRA 2 OR MATH 0110
- EDUC 0204 - INTRODUCTION TO EDUCATION
- SOC 0101 - INTRODUCTION TO SOCIOLOGY Second Math
- EDUC 0235 - INSTRUCTIONAL DESIGN

Life/Environmental Science
Art, Music or Theatre

## Second Year

- EDUC 0215 - ENGLISH LANGUAGE LEARNERS
- EDUC 0225 - THE DEVELOPING CHILD: BIRTH-PRIMARY YEARS
- EDUC 0230 - FAMILY AND COMMUNITY RELATIONSHIPS
- EDUC 0255 - READINGS IN CHILDREN'S LITERTR
- GEOG 0101 - WORLD REGIONAL GEOGRAPHY

OR GEOG 0102
GE Literature

- HIST 0106 - UNITED STATES HISTORY 1

OR HIST 0107
PEDC course
Physical/Env. Science

- PSY 0101 - INTRODUCTION TO PSYCHOLOGY

ECON or PS

## Third Year

- EDUC 1345 - EDUCATIONAL THEORIES AND PRACTICES
- EDUC 1325 - DEVELOPMENT OF CHILDREN WITH EXCEPTIONAL NEEDS
- EDUC 0220 - SPECIAL EDUCATION LAW
- EDUC 1306 - CLASSROOM MANAGEMENT
- EDUC 1302-ASSESSMENT TECHNIQUES
- EDUC 1309 - DIFFERENTIATED READING INSTRUCTION AND INTERVENTION (PREK-4)
- EDUC 1312 - LANGUAGE DEVELOPMENT AND EARLY LITERACY FOUNDATIONS (PREK-1)
- EDUC 1318 - EARLY MATH FOUNDATIONS (PREK-1)
- EDUC 1320 - ART, MUSIC, AND MOVEMENT METHODS (PREK-4)
- EDUC 1330 - EDUCATING CHILDREN WITH EXCEPTIONAL NEEDS
- EDUC 1301 - INSTRUCTIONAL TECHNOLOGY Physical, Life or Comp.


## Fourth Year

- EDUC 1322 - SOCIAL STUDIES METHODS (PREK-4)
- EDUC 1324 - MATH METHODS FOR PRIMARY GRADES (2-4)
- EDUC 1327 - SCIENCE METHODS (PREK-4)
- EDUC 1332 - LITERACY FOUNDATIONS FOR PRIMARY GRADES (2-4)
- EDUC 1350 - EDUCATIONAL PSYCH \& MEASUREMENT
- EDUC 1451 - CAPSTONE: EDUCATION
- EDUC 1481 - STUDENT TEACHING


## Economics, BA

Contact: Dr. Shailendra Gajanan

Economics is the study of the allocation, production, and distribution processes in an economy and how policy decisions impact the economy. Students majoring in economics develop the analytical and quantitative skills required for careers in the private and public sectors.

## Degree Requirements

## Course Requirements in the Major

- ECON 0102 - INTRODUCTION TO MICROECONOMICS
- ECON 0103 - INTRODUCTION TO MACROECONOMICS
- ECON 0204 - STATISTICAL METHODS
- ECON 0206 - INTERMEDIATE MICROECONOMICS
- ECON 0207 - INTERMEDIATE MACROECONOMICS
- ECON 0201 - MONEY AND BANKING
- ACCT 0201 - FINANCIAL ACCOUNTING CONCEPTS
- ECON 1451 - CAPSTONE: ECONOMIC SYSTEMS

Credits: 25

## Economics Electives (15-16 Credits)

Five courses selected from the following sets of courses:

Set 1 Applied economics (two courses)

- ECON 1301 - POVERTY AND SOCIETY
- ECON 1307 - ECONOMICS OF ENERGY \& ENVIRONMNT
- ECON 1315 - STATE AND REGIONAL ECONOMIC DEVELOPMENT
- ECON 1401 AAMERICAN ECONOMIC HISTORY
- ECON 1402 - LABOR ECONOMICS

Set 2 Sectoral economics (three courses)

- ECON 1303 - INDUSTRIAL ORGANIZATION
- FIN 1301 - CORPORATE FINANCE
- MRKT 1301 - PRINCIPLES OF MARKETING
- FIN 1304 - FINANCL MARKETS AND INSTITUTIONS
- FIN 1401 - INTERNATIONAL FINANCE

Choose four from the following list of electives courses (12 credits):

- MIS 0103 - COMPUTER APPLICATIONS FOR MANAGEMENT
- MATH 0136 - APPLIED CALCULUS
- HIST 0107 - UNITED STATES HISTORY 2
- HIST 0203 - RADICALISM IN THE US
- HIST 1317 - CONTEMPORARY US HISTORY 1941-PRESENT
- INTS 0101 - GLOBAL ISSUES
- PS 0110 - INTRODUCTION TO INTERNATIONAL AFFAIRS

PS 0201 - WORLD POLITICS

- PS 0201 - WORLD POLITICS
- ECON 0205 Public Finance I - 3 Credits
- ECON 0208 Mathematical Economics - 3 Credits
- MGMT 1401 - BUSINESS SOCIETY \& INT'L ENVRN


## Total credits required for the major: 52-53

## General Education Program Requirements and Electives-Variable

(See General Education Program and General Requirements for the Bachelor's Degree under Academic Policies and Guidelines for further details.)

## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Suggested Course of Study

## First Year

- FS 0104 - FIRST YEAR TRANSITION SEMINAR
- ENG 0101 - ENGLISH COMPOSITION 1
- MIS 0103 - COMPUTER APPLICATIONS FOR MANAGEMENT
- ECON 0102 - INTRODUCTION TO MICROECONOMICS
- ECON 0103 - INTRODUCTION TO MACROECONOMICS
- ENG 0102 - ENGLISH COMPOSITION 2
- General education or elective courses - 9 Credits
- MATH 0136 - APPLIED CALCULUS

Second Year

- ECON 0206 - INTERMEDIATE MICROECONOMICS
- ECON 0207 - INTERMEDIATE MACROECONOMICS
- ECON 0204 - STATISTICAL METHODS
- HIST 0107 - UNITED STATES HISTORY 2 or
- HIST 1317-CONTEMPORARY US HISTORY 1941-PRESENT
- Economics elective - 9 Credits
- General education or elective courses - 11 Credits


## Third Year

- ECON 0201 - MONEY AND BANKING or
- ECON 0205 Public Finance I - 3 Credits or
- ECON 0208 Mathematical Economics - 3 Credits
- ACCT 0201 - FINANCIAL ACCOUNTING CONCEPTS
- Economics Area electives - 12 Credits
- INTS 0101 - GLOBAL ISSUES
or
- PS 0201 - WORLD POLITICS
- General education or elective courses - 9 Credits
- PS 0201 - WORLD POLITICS
- General education or elective courses - 9 Credits


## Fourth Year

- ECON 1451 - CAPSTONE: ECONOMIC SYSTEMS
- Economics electives - 6 Credits
- General education or elective courses - 19 Credits


## English Education 7-12, BS

Contact: Dr. William Clark

## Degree Requirements

Course Requirements in the Major

All courses in the major must be completed with a C- or higher and a 3.0 grade point average must be maintained, in the major and overall.

- ENG 0110 - LITERATURE AND INTERPRETATION
- CLP 1315-CRITICAL METHODS
- COMM 0201 - MASS MEDIA AND SOCIETY
- WRITNG 0111 - LITERARY EDITING AND MAGAZINE PRODUCTION 1
- CLP 0203 - FILM AND LITERATURE
- ENG 0206 - HISTORY OF THE ENGLISH LANG
- ENG 1451 - CAPSTONE: ENGLISH Writng Elective 3 credits

Other required courses

- EDUC 0235 - INSTRUCTIONAL DESIGN
- EDUC 1301 - INSTRUCTIONAL TECHNOLOGY
- EDUC 0204 - INTRODUCTION TO EDUCATION
- EDUC 0215 - ENGLISH LANGUAGE LEARNERS
- EDUC 0220 - SPECIAL EDUCATION LAW
- EDUC 0275-ADOLESCENT LITERATURE
- EDUC 1307 - SECONDARY METHODS
- EDUC 1325 - DEVELOPMENT OF CHILDREN WITH EXCEPTIONAL NEEDS
- EDUC 1330 - EDUCATING CHILDREN WITH EXCEPTIONAL NEEDS
- EDUC 1334 - LITERACIES ACROSS THE MIDDLE AND SECONDARY CURRICULUM
- EDUC 1345 - EDUCATIONAL THEORIES AND PRACTICES
- EDUC 1350 - EDUCATIONAL PSYCH \& MEASUREMENT
- EDUC 1302-ASSESSMENT TECHNIQUES
- EDUC 1481 - STUDENT TEACHING

Shakespeare Course:

- ENG 0205 - INTRODUCTION TO SHAKESPEARE or

Note:

EDUC 0215 and EDUC 0220 are required for those students who will not complete the program prior to January 2013.

## Coverage

Six courses ( 18 credits), including at least one course from a period prior to 1800 , one course from each group, and three upper-level courses.
American Literature:
British/European Literature:
Contemporary World Literature:
Western Foundations:

## General Education Program Requirements and Requirements-Variable

(See General Education Program and General Requirements for the Bachelor's Degree under Academic Policies and Guidelines for further details.)

## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at
facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Suggested Course of Study

## First Year

- ENG 0101 - ENGLISH COMPOSITION 1
- FS 0104 - FIRST YEAR TRANSITION SEMINAR
- ENG 0206 - HISTORY OF THE ENGLISH LANG
- MATH 0098 - COLLEGE ALGEBRA 2 OR MATH 0110
- Behavioral, Economic or Political Science Elective
- EDUC 0204 - INTRODUCTION TO EDUCATION
- ENG 0102 - ENGLISH COMPOSITION 2
- ENG 0110 - LITERATURE AND INTERPRETATION
- WRITNG 0111 - LITERARY EDITING AND MAGAZINE PRODUCTION 1
- PSY 0101 - INTRODUCTION TO PSYCHOLOGY


## Second Year

- COMM 0201 - MASS MEDIA AND SOCIETY OR CLP 0203 - FILM AND LITERATURE
- EDUC 0220 - SPECIAL EDUCATION LAW
- ENG Literature (American)
- PEDC Course (1 CREDIT)
- Life, Physical, or Computational Science Elective
- CLP 1315-CRITICAL METHODS
- EDUC 0235 - INSTRUCTIONAL DESIGN
- EDUC 0275-ADOLESCENT LITERATURE
- EDUC 1325 - DEVELOPMENT OF CHILDREN WITH EXCEPTIONAL NEEDS
- ENG Literature (European)
- ENG Literature (Western Fnd.)


## Third Year

- EDUC 0215 - ENGLISH LANGUAGE LEARNERS
- EDUC 1345 - EDUCATIONAL THEORIES AND PRACTICES
- ENG 0205 - INTRODUCTION TO SHAKESPEARE
- Arts Elective
- Physical Science Elective
- Writing Elective
- EDUC 1301 - INSTRUCTIONAL TECHNOLOGY
- EDUC 1330 - EDUCATING CHILDREN WITH EXCEPTIONAL NEEDS
- EDUC 1334 - LITERACIES ACROSS THE MIDDLE AND SECONDARY CURRICULUM
- Behavioral, Economic or Political Science (not necessary if COMM 0201 is taken)
- ENG Literature Elective
- ENG Literature Elective


## Fourth Year

- EDUC 1302-ASSESSMENT TECHNIQUES
- EDUC 1307 - SECONDARY METHODS
- EDUC 1350 - EDUCATIONAL PSYCH \& MEASUREMENT
- ENG 1451 - CAPSTONE: ENGLISH
- Life Science Elective
- EDUC 1481 - STUDENT TEACHING

Total Credits: 132-134

## Health and Physical Education PreK-12, BS

Contact: Amanda Davis

## Degree Requirements

## Course Requirements in the Major

All courses in the major must be completed with a C- or higher and a 3.0 grade point average must be maintained.

- EXSCI 0204 - FIRST AID/CPR
- EXSCI 0108 - NUTRITION
- PEDC 0202 - LIFEGUARDING

OR

- PEDC 0110 - FITNESS SWIMMING
- HPRED 0209 - PERSONAL HEALTH AND WELLNESS
- HPEDU 0102 - CURRENT ISSUES IN COMMUNITY HEALTH
- HPEDU 0201 - INDIVIDUAL, TEAM, AND RECREATIONAL SPORTS
- HPEDU 1300 - ADAPTIVE PHYSICAL EDUCATION
- EXSCI 1305-BIOMECHANICS
- EXSCI 1306 - EXERCISE PHYSIOLOGY
- HPEDU 1321 - METHODS OF TEACHING HEALTH
- HPEDU 1330 - MOTOR BEHAVIOR
- HPEDU 1336 - EDUCATIONAL MOVEMENT CONCEPTS
- HPEDU 1400 - METHODS OF TEACHING PHYSICAL EDUCATION
- BIOL 0212 - HUMAN ANATOMY AND PHYSIOLOGY 1
- BIOL 0222 - HUMAN ANATOMY AND PHYSIOLOGY LAB 1
- EXSCI 0225 - FUNCTIONAL HUMAN ANATOMY
- CHEM 0187 - DRUGS AND SOCIETY
- MATH 0098-COLLEGE ALGEBRA 2 or higher-level mathematics competency - 3-4 Credits Second Math -Competency level or higher
- EDUC 0204 - INTRODUCTION TO EDUCATION
- EDUC 0215 - ENGLISH LANGUAGE LEARNERS
- EDUC 0220 - SPECIAL EDUCATION LAW
- EDUC 0235 - INSTRUCTIONAL DESIGN
- EDUC 0255 - READINGS IN CHILDREN'S LITERTR or
- EDUC 0275 - ADOLESCENT LITERATURE
- EDUC 1301 - INSTRUCTIONAL TECHNOLOGY
- EDUC 1302 - ASSESSMENT TECHNIQUES
- EDUC 1325 - DEVELOPMENT OF CHILDREN WITH EXCEPTIONAL NEEDS
- EDUC 1345 - EDUCATIONAL THEORIES AND PRACTICES
- EDUC 1350 - EDUCATIONAL PSYCH \& MEASUREMENT
- EDUC 1481 - STUDENT TEACHING
- EDUC 1451 - CAPSTONE: EDUCATION


## General Education Program Requirements and Requirements-Variable

(See General Education Program and General Requirements for the Bachelor's Degree under Academic Policies and Guidelines for further details.)

## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Suggested Course of Study

## First Year

- EDUC 0204 - INTRODUCTION TO EDUCATION
- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- PEDC 0202 - LIFEGUARDING

OR

- PEDC 0110 - FITNESS SWIMMING
- CHEM 0187 - DRUGS AND SOCIETY
- EXSCI 0225 - FUNCTIONAL HUMAN ANATOMY
- HPEDU 0102 - CURRENT ISSUES IN COMMUNITY HEALTH
- MATH - GE COMPETENCY
- PHYSICAL, LIFE, OR COMPUTATIONAL SCIENCE
- FS 0104 - FIRST YEAR TRANSITION SEMINAR


## Total Credits First Year: 32

## Second Year

- BIOL 0212 - HUMAN ANATOMY AND PHYSIOLOGY 1
- BIOL 0222 - HUMAN ANATOMY AND PHYSIOLOGY LAB 1
- HPEDU 1330 - MOTOR BEHAVIOR
- EDUC 0220 - SPECIAL EDUCATION LAW
- EDUC 0235 - INSTRUCTIONAL DESIGN
- EDUC 1325 - DEVELOPMENT OF CHILDREN WITH EXCEPTIONAL NEEDS
- HPRED 0209 - PERSONAL HEALTH AND WELLNESS
- PSY 0101 - INTRODUCTION TO PSYCHOLOGY
- EXSCI 0204 - FIRST AID/CPR
- EXSCI 0108 - NUTRITION
- PHYSICAL, LIFE, OR COMPUTATIONAL SCIENCE
- HISTORY ELECTIVE

Total Credits Second Year: 34

## Third Year

- HPEDU 1300 - ADAPTIVE PHYSICAL EDUCATION
- EDUC 0215 - ENGLISH LANGUAGE LEARNERS
- EDUC 1301 - INSTRUCTIONAL TECHNOLOGY
- EDUC 1302-ASSESSMENT TECHNIQUES
- EDUC 1345 - EDUCATIONAL THEORIES AND PRACTICES
- EDUC 0255 - READINGS IN CHILDREN'S LITERTR OR EDUC 0275
- HPEDU 1321 - METHODS OF TEACHING HEALTH
- EXSCI 1305 - BIOMECHANICS
- EXSCI 1306 - EXERCISE PHYSIOLOGY
- BEHAVORIAL, ECONOMIC OR POLITICAL SCIENCE
- HISTORY, CULTURE, OR PHILOSOPHICAL INQUIRY


## Total Credits Third Year: 34

## Fourth Year

- EDUC 1350 - EDUCATIONAL PSYCH \& MEASUREMENT
- HPEDU 1451 - CAPSTONE: HEALTH AND PHYSICAL EDUCATION (ULW)
- HPEDU 0201 - INDIVIDUAL, TEAM, AND RECREATIONAL SPORTS
- HPEDU 1336 - EDUCATIONAL MOVEMENT CONCEPTS
- HPEDU 1400 - METHODS OF TEACHING PHYSICAL EDUCATION
- ENG LITERATURE ELECTIVE
- EDUC 1481 - STUDENT TEACHING

Total Credits Fourth Year: 30
Total Credits For Program: 126

## Hospitality Management, BS

## Contact: Professor Lynette Campogiani

The hospitality management major consists of a 121 to 122 credit curriculum leading to a Bachelor of Science degree. Consistent with the overall mission of the University of Pittsburgh at Bradford, the hospitality management major includes a liberal arts core curriculum, much of which is taken during the first two years of study. Hospitality management majors also take required foundation courses across the fundamental areas of the industry.

## Degree Requirements

Courses Within the Major

- MGMT 0110 - PRINCIPLES OF MANAGEMENT
- ECON 0103 - INTRODUCTION TO MACROECONOMICS
- MIS 0103 - COMPUTER APPLICATIONS FOR MANAGEMENT
- HMGT 0101 - INTRODUCTION TO HOSPITALITY MANAGEMENT
- HMGT 0201 - SERVICE INDUSTRY STRUCTURE AND LEADERSHIP
- MGMT 1320 - HUMAN RESOURCES MANAGEMENT
- HMGT 0210 - LEGAL ISSUES IN THE HOSPITALITY AND TOURISM INDUSTRY
- HMGT 0220 - FOODSERVICE MANAGEMENT
- ACCT 0201 - FINANCIAL ACCOUNTING CONCEPTS
- ACCT 0202 - MANAGERIAL ACCOUNTING CONCEPTS
- HMGT 1310 - HOTEL OPERATIONS
- HMGT 1320 - HOSPITALITY INFORMATION SYSTEM
- FIN 1301 - CORPORATE FINANCE
- MRKT 1301 - PRINCIPLES OF MARKETING
- HMGT 1330 - PRINCIPLES OF FOOD PREPARATION
- HMGT 1340 - FOOD AND BEVERAGE COST CONTROL
- HMGT 1370 - HOSPITALITY AND TOURISM MARKETING
- MGMT 1451 - CAPSTONE: STRATEGIC MANAGEMENT
- (Capstone Requirement, Upper Level Writing Requirement)

Credits: 58

Other required courses

- MATH 0098 - COLLEGE ALGEBRA 2 (Math Requirement)
- ECON 0112 - TOURISM (1 Economics Requirement)
- MATH 0133 - STATISTICS (Computational Science)

Credits: 10

Electives - 9 Credits

Total Credits Hours: 77

## Possible Elective Courses

- HMGT 1380 - SPECIAL EVENTS PLANNING

Sequencing of Courses
Year 1

- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- HMGT 0101 - INTRODUCTION TO HOSPITALITY MANAGEMENT
- ECON 0112 - TOURISM
- ECON 0103 - INTRODUCTION TO MACROECONOMICS
- MIS 0103 - COMPUTER APPLICATIONS FOR MANAGEMENT
- MGMT 0110 - PRINCIPLES OF MANAGEMENT
- MATH 0098 - COLLEGE ALGEBRA 2 or
- MATH 0136 - APPLIED CALCULUS
- MATH 0133 - STATISTICS
- General Education or Electives - 6 Credits

Credits: 31

## Year 2

- MATH 0133 - STATISTICS
- HMGT 0201 - SERVICE INDUSTRY STRUCTURE AND LEADERSHIP
- MGMT 1320 - HUMAN RESOURCES MANAGEMENT
- HMGT 0210 - LEGAL ISSUES IN THE HOSPITALITY AND TOURISM INDUSTRY
- HMGT 0220 - FOODSERVICE MANAGEMENT
- HMGT 1310 - HOTEL OPERATIONS
- ACCT 0201 - FINANCIAL ACCOUNTING CONCEPTS
- ACCT 0202 - MANAGERIAL ACCOUNTING CONCEPTS
- General Education or Electives - 6 Credits


## Year 3

- HMGT 1330 - PRINCIPLES OF FOOD PREPARATION
- HMGT 1340 - FOOD AND BEVERAGE COST CONTROL
- HMGT 1370 - HOSPITALITY AND TOURISM MARKETING
- FIN 1301 - CORPORATE FINANCE
- MRKT 1301 - PRINCIPLES OF MARKETING
- HMGT 1320 - HOSPITALITY INFORMATION SYSTEM
- Hospitality Electives - 9 Credits
- General Education or Electives - 9 Credits


## Year 4

- MGMT 1451-CAPSTONE: STRATEGIC MANAGEMENT
- Hospitality Electives - 6 Credits
- General Education or Electives - 18 Credits
- General Education Electives - 27 Credits

Total Credit Hours: 121-122

## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Information Systems, AS

## Contact: Dr. Ken Wang

The Information Systems major consists of a 60 credit curriculum leading to an Associate of Science degree. Information Systems majors gain handson experience as well as conceptual knowledge in a broad range of information technologies and systems. Foundation courses focus on specific technologies while upper level courses concentrate on application and integration of technologies in the business environment. This program prepares students for entry-level positions in the field of Information Systems. It also prepares students to continue on to complete the Bachelor of Science degree in the Computer Information Systems and Technology (CIS\&T) major at the university of Pittsburgh at Bradford.

## Course Requirements in the Major

## Core Requirements in Information Technology

- CIST 0150 - FUNDAMENTALS OF PROGRAMMING
- CIST 0161 - THE TECHNOLOGY OF COMPUTING
- CIST 0163 - INTRODUCTION TO WEB PROGRAMMING
- CIST 0165 - NETWORKING 1
- CIST 0166 - NETWORKING 2
- CIST 0261 - COMPUTER SECURITY
- CIST 0262 - SYSTEMS ADMINISTRATION
- MIS 0103 - COMPUTER APPLICATIONS FOR MANAGEMENT
- MIS 0208 - BUSINESS INFORMATION SYSTEMS
- CIST 0265 - OBJECT ORIENTED PROGRAMMING

Credits: 30

## Other required courses

- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- MATH 0098 - COLLEGE ALGEBRA 2 or
- MATH 0110 - FUNDAMENTALS OF MATHEMATICS
- Approved Elective - 3 Credits

Credits: 12

## General Education Courses

Six courses (18-19 credits) over the four human experience areas with at least one course in each area, and at least one course must be a physical or life science with laboratory.

Total credits: 60-61

## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at
facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## For those who intend to pursue the four year degree in Computer Information Systems and Technology

For those who intend to pursue the four year degree in Computer Information Systems and Technology, we recommend that the student take the following:

- MATH 0098 - COLLEGE ALGEBRA 2


## Suggested Course of Study

## Semester 1

- CIST 0161 - THE TECHNOLOGY OF COMPUTING
- ENG 0101 - ENGLISH COMPOSITION 1
- CIST 0165 - NETWORKING 1
- CIST 0163 - INTRODUCTION TO WEB PROGRAMMING
- MIS 0103 - COMPUTER APPLICATIONS FOR MANAGEMENT


## Credits: 15

## Semester 2

- CIST 0166 - NETWORKING 2
- ENG 0102 - ENGLISH COMPOSITION 2
- GE elective-3 Credits
- MATH 0110 - FUNDAMENTALS OF MATHEMATICS
- CIST 0150 - FUNDAMENTALS OF PROGRAMMING
- MIS 0208 - BUSINESS INFORMATION SYSTEMS

Credits: 15

## Semester 3

- CIST 0265 - OBJECT ORIENTED PROGRAMMING

Credits: 15

## Semester 4

- CIST 0261 - COMPUTER SECURITY
- CIST 0262 - SYSTEMS ADMINISTRATION
- GE elective - 3 Credits
- GE elective - 3 Credits
- GE elective - 3 Credits


## Mathematics Education 7-12, BS

Contact: Dr. William Clark

## Degree Requirements

## Course Requirements in the Major

All courses in the major must be completed with a C- or higher and a 3.0 grade point average must be maintained, in the major and overall.

- MATH 0135 - DISCRETE MATHEMATICS
- MATH 0140 - CALCULUS 1
- MATH 0150 - CALCULUS 2
- MATH 0201 - CALCULUS 3
- MATH 0202 - ORDINARY DIFFERENTIAL EQUATIONS
- MATH 0206 - LINEAR ALGEBRA
- MATH 0207 - GEOMETRY
- MATH 1303 - MATHEMATICAL MODELING
- MATH 1309 - APPLIED PROBLTY AND STATISTICS
- MATH 1312 - ABSTRACT ALGEBRA \& NUMBER THEORY
- MATH 1318 - INTRODUCTION TO ANALYSIS
- MATH 1452 - CAPSTONE: MATHEMATICS
- EDUC 1301 - INSTRUCTIONAL TECHNOLOGY
- EDUC 0204 - INTRODUCTION TO EDUCATION
- EDUC 0215 - ENGLISH LANGUAGE LEARNERS
- EDUC 0220 - SPECIAL EDUCATION LAW
- EDUC 0235 - INSTRUCTIONAL DESIGN
- EDUC 0275 - ADOLESCENT LITERATURE
- EDUC 1302-ASSESSMENT TECHNIQUES
- EDUC 1307 - SECONDARY METHODS
- EDUC 1325 - DEVELOPMENT OF CHILDREN WITH EXCEPTIONAL NEEDS
- EDUC 1330 - EDUCATING CHILDREN WITH EXCEPTIONAL NEEDS
- EDUC 1334 - LITERACIES ACROSS THE MIDDLE AND SECONDARY CURRICULUM
- EDUC 1345 - EDUCATIONAL THEORIES AND PRACTICES
- EDUC 1350 - EDUCATIONAL PSYCH \& MEASUREMENT
- EDUC 1481 - STUDENT TEACHING


## General Education Program Requirements and Requirements-Variable

(See General Education Program and General Requirements for the Bachelor's Degree under Academic Policies and Guidelines for further details.)

## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become
licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Suggested Course of Study

## First Year

- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- MATH 0140 - CALCULUS 1
- BEHAVORIAL, ECONOMIC OR POLITICAL SCIENCE
- PHYSICAL, LIFE, OR COMPUTATIONAL SCIENCE
- EDUC 0204 - INTRODUCTION TO EDUCATION
- MATH 0135 - DISCRETE MATHEMATICS
- MATH 0150 - CALCULUS 2
- PSY 0101 - INTRODUCTION TO PSYCHOLOGY
- FS 0104 - FIRST YEAR TRANSITION SEMINAR


## Second Year

- EDUC 0220 - SPECIAL EDUCATION LAW
- EDUC 0235 - INSTRUCTIONAL DESIGN
- EDUC 0275 - ADOLESCENT LITERATURE
- EDUC 1325 - DEVELOPMENT OF CHILDREN WITH EXCEPTIONAL NEEDS
- MATH 0201 - CALCULUS 3
- MATH 0202 - ORDINARY DIFFERENTIAL EQUATIONS
- MATH 0206 - LINEAR ALGEBRA
- HISTORY ELECTIVE
- LITERATURE ELECTIVE
- ARTS ELECTIVE
- HISTORY, CULTURE, OR PHILOSOPHICAL INQUIRY
- PEDC COURSE


## Third Year

- MATH 0207 - GEOMETRY
- MATH 1303 - MATHEMATICAL MODELING
- MATH 1312-ABSTRACT ALGEBRA \& NUMBER THEORY
- MATH 1309 - APPLIED PROBLTY AND STATISTICS
- EDUC 1301 - INSTRUCTIONAL TECHNOLOGY
- EDUC 1302 - ASSESSMENT TECHNIQUES
- EDUC 1345 - EDUCATIONAL THEORIES AND PRACTICES
- EDUC 1334 - LITERACIES ACROSS THE MIDDLE AND SECONDARY CURRICULUM
- EDUC 1330 - EDUCATING CHILDREN WITH EXCEPTIONAL NEEDS
- LIFE OR PHYSICAL SCIENCE
- BEHAVIORAL, ECONOMIC, OR POLITICAL SCIENCE


## Fourth Year

- EDUC 0215 - ENGLISH LANGUAGE LEARNERS
- EDUC 1307 - SECONDARY METHODS
- EDUC 1350 - EDUCATIONAL PSYCH \& MEASUREMENT
- MATH 1318 - INTRODUCTION TO ANALYSIS
- MATH 1452-CAPSTONE: MATHEMATICS
- EDUC 1481 - STUDENT TEACHING

Total Credits: 130

## Social Studies Education 7-12, BS

Contact: Dr. William Clark

## Degree Requirements

## Course Requirements in the Major

All courses in the major must be completed with a C- or higher and a 3.0 grade point average must be maintained, in the major and overall. Students must complete all prescribed courses for the Social Studies Education Degree.

All social studies education majors must complete the following education courses:

- EDUC 0204 - INTRODUCTION TO EDUCATION
- EDUC 0215 - ENGLISH LANGUAGE LEARNERS
- EDUC 0220 - SPECIAL EDUCATION LAW
- EDUC 0235 - INSTRUCTIONAL DESIGN
- EDUC 0275 - ADOLESCENT LITERATURE
- EDUC 1301 - INSTRUCTIONAL TECHNOLOGY
- EDUC 1307 - SECONDARY METHODS
- EDUC 1325 - DEVELOPMENT OF CHILDREN WITH EXCEPTIONAL NEEDS
- EDUC 1330 - EDUCATING CHILDREN WITH EXCEPTIONAL NEEDS
- EDUC 1334 - LITERACIES ACROSS THE MIDDLE AND SECONDARY CURRICULUM
- EDUC 1345 - EDUCATIONAL THEORIES AND PRACTICES
- EDUC 1350 - EDUCATIONAL PSYCH \& MEASUREMENT
- EDUC 1481 - STUDENT TEACHING

All social studies education majors must complete the following core content courses.

Twelve credits within the major must be international or cross-cultural in nature.

- HIST 0106 - UNITED STATES HISTORY 1
- HIST 0107 - UNITED STATES HISTORY 2

Two courses from the following list:

- HIST 0103 - EUROPE IN THE 18TH CENTURY
- HIST 0104 - EUROPE IN THE 19TH CENTURY
- HIST 0105 - EUROPE IN THE 20TH CENTURY
- HIST 0108 - MEDIEVAL EUROPE
- HIST 0109 - RENAISSANCE AND REFORMATION IN EUROPE

And each of the following:

- PS course in American Government \& Politics - 3 Credits
- PS course in Comparative Government \& Politics - 3 Credits
- PS course in International Politics - 3 Credits
- PS course in Political Theory - 3 Credits
- HIST 1449 - CAPSTONE 1: RESEARCH METHODS or
- PS 1449-CAPSTONE 1: RESEARCH METHODS
- HIST 1451 - CAPSTONE 2: HISTORY or
- PS 1451 - CAPSTONE 2: POLITICAL SCIENCE


## Required Electives

- Upper-level History elective - 3 Credits
- Upper-level Political Science elective - 3 Credits
- MATH (Second college-level math class required.) - 3-4 Credits


## Collateral Areas

24 credits with at least one course in each area

- Anthropology (ANTH) - 3 Credits
- Geography (GEOG) - 3 Credits
- Economics (ECON) - 3 Credits
- Psychology ( PSY 0101-INTRODUCTION TO PSYCHOLOGY )
- Sociology (SOC) - 3 Credits
- Two upper-level required collateral electives (Choose from ANTH, ECON, GEOG, PSY, and SOC) - 6 Credits


## General Education Program Requirements and Requirements-Variable

(See General Education Program and General Requirements for the Bachelor's Degree under Academic Policies and Guidelines for further details.)

## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Suggested Course of Study

## First Year

- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- FS 0104 - FIRST YEAR TRANSITION SEMINAR
- EDUC 0204 - INTRODUCTION TO EDUCATION
- HIST 0106 - UNITED STATES HISTORY 1
- MATH 0098 - COLLEGE ALGEBRA 2

OR MATH 0110

PS (US Gov)
ANTH

- GEOG 0101 - WORLD REGIONAL GEOGRAPHY OR GEOG 0102
- HIST 0107 - UNITED STATES HISTORY 2
- SOC 0101 - INTRODUCTION TO SOCIOLOGY

GE Arts

## Second Year

- EDUC 0220 - SPECIAL EDUCATION LAW
- EDUC 0235 - INSTRUCTIONAL DESIGN
- EDUC 0275-ADOLESCENT LITERATURE

ECON
Two Courses LL European Hist PS-International

- PSY 0101 - INTRODUCTION TO PSYCHOLOGY

Life, Physical or Comp
PS-Comp. Gov
GE LIterature
Life or Physical Science

## Third Year

- EDUC 0215 - ENGLISH LANGUAGE LEARNERS
- EDUC 1325 - DEVELOPMENT OF CHILDREN WITH EXCEPTIONAL NEEDS
- EDUC 1345 - EDUCATIONAL THEORIES AND PRACTICES
- EDUC 1350 - EDUCATIONAL PSYCH \& MEASUREMENT
- EDUC 1334 - LITERACIES ACROSS THE MIDDLE AND SECONDARY CURRICULUM
- EDUC 1330 - EDUCATING CHILDREN WITH EXCEPTIONAL NEEDS

Second Math
UL Hist
UL PS
PS-Political Theory

- HIST 1449-CAPSTONE 1: RESEARCH METHODS

OR PS
UL Collateral

## Fourth Year

- EDUC 1307-SECONDARY METHODS
- EDUC 1301 - INSTRUCTIONAL TECHNOLOGY
- EDUC 1481 - STUDENT TEACHING

Life or Physical Science UL Collateral

- HIST 1451 - CAPSTONE 2: HISTORY

OR PS
PEDC course

## Sport and Recreation Management, BS

## Contact: Dr. Jodi Burns

The Sport and Recreation Management major consists of a 67-credit curriculum leading to a Bachelor of Science degree. The Sport and Recreation Management program is designed for experiential learning through a combination of academic coursework and practical experience. Consistent with the overall mission of the University of Pittsburgh at Bradford, the Sport and Recreation Management major includes a liberal arts core curriculum, along with required foundation courses preparing students for opportunities in the industry.

## Degree Requirements

Students may earn a major in sport and recreation management by completing the following requirements:

## Course Requirements in the Major

- HPRED 0202 - PSYCHOLOGY OF SPORT
- HPRED 0210 - THE GOVERNANCE AND MANAGEMENT OF SPORT
- HPRED 1301 - SPORTS MARKETING
- HPRED 1310 - ETHICS AND LEADERSHIP IN SPORT
- HPRED 1401 - LEGAL LIABILITY IN SPORTS
- HPRED 1407 - FACILITY AND EVENT MANAGEMENT
- HPRED 1425 - SPORT ECONOMICS AND FINANCE
- HPRED 1452 - CAPSTONE: SPORT \& RECREATN MGMT

OR

- MGMT 1451-CAPSTONE: STRATEGIC MANAGEMENT
- HPRED 1496 - FIELDWORK IN SPORT AND RECREATION MANAGEMENT
- ACCT 0201 - FINANCIAL ACCOUNTING CONCEPTS
- ACCT 0202 - MANAGERIAL ACCOUNTING CONCEPTS
- ECON 0102 - INTRODUCTION TO MICROECONOMICS
- ECON 0103 - INTRODUCTION TO MACROECONOMICS
- MGMT 0110 - PRINCIPLES OF MANAGEMENT
- MGMT 1304 - BUSINESS LAW
- MIS 0208 - BUSINESS INFORMATION SYSTEMS
- MRKT 1301 - PRINCIPLES OF MARKETING
- PR 0101 - INTRODUCTION TO PUBLIC RELATIONS
- PSY 0101 - INTRODUCTION TO PSYCHOLOGY
- SOC 0101 - INTRODUCTION TO SOCIOLOGY
- SOC 0202 - SOCIOLOGY OF SPORT
- SOC 1305-ORGANIZATIONAL BEHAVIOR or
- MGMT 1301-ORGANIZATIONAL BEHAVIOR

Students must receive a C- or better in all above core courses.
Total credits required for the major: 67

## General Education Program Requirements and Electives-Variable

(See General Education Program and General Requirements for the Bachelor's Degree under Academic Policies and Guidelines for further details.)

## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Suggested Course of Study

## First Year

- ENG 0101 - ENGLISH COMPOSITION 1
- MATH 0098 - COLLEGE ALGEBRA 2
- PR 0101 - INTRODUCTION TO PUBLIC RELATIONS
- SOC 0101 - INTRODUCTION TO SOCIOLOGY
- ENG 0102 - ENGLISH COMPOSITION 2
- MIS 0208 - BUSINESS INFORMATION SYSTEMS
- HPRED 0210 - THE GOVERNANCE AND MANAGEMENT OF SPORT
- SOC 0202 - SOCIOLOGY OF SPORT
- MGMT 0110 - PRINCIPLES OF MANAGEMENT
- FS 0104 - FIRST YEAR TRANSITION SEMINAR


## Second Year

- ECON 0103 - INTRODUCTION TO MACROECONOMICS
- General Education elective 9 credits
- HPRED 0202 - PSYCHOLOGY OF SPORT
- ACCT 0201 - FINANCIAL ACCOUNTING CONCEPTS
- PSY 0101 - INTRODUCTION TO PSYCHOLOGY
- ECON 0102 - INTRODUCTION TO MICROECONOMICS
- ACCT 0202 - MANAGERIAL ACCOUNTING CONCEPTS
- MRKT 1301 - PRINCIPLES OF MARKETING


## Third Year

- MGMT 1304-BUSINESS LAW
- HPRED 1425 - SPORT ECONOMICS AND FINANCE
- General Education elective - 14 Credits
- HPRED 1301 - SPORTS MARKETING
- HPRED 1310 - ETHICS AND LEADERSHIP IN SPORT
- MGMT 1301-ORGANIZATIONAL BEHAVIOR


## Fourth Year

- HPRED 1401 - LEGAL LIABILITY IN SPORTS
- General Education electives 15 credits
- HPRED 1452 - CAPSTONE: SPORT \& RECREATN MGMT
- HPRED 1496 - FIELDWORK IN SPORT AND RECREATION MANAGEMENT
- HPRED 1407 - FACILITY AND EVENT MANAGEMENT
- HPRED 1425 - SPORT ECONOMICS AND FINANCE


## Minor

## Accounting Minor

## Contact: Professor John Crawford

Academic Division: Management and Education

## Program Description:

The goal of our accounting program is to prepare you to be on the decision-making team, not just account for the decisions.
With a minor in accounting, you are going to graduate with a liberal arts background and a degree in another discipline. That way, you will have critical-thinking and analytical skills. You'll be able to effectively communicate. And, you'll have a knowledge of the environment, which will be affected by the decisions.

Our graduates are working with businesses to develop strategies. They're working with investors to analyze mergers and acquisitions. And, they're working with boards of directors and all types of organizations to measure and communicate financial results.

Several of our recent graduates have gone into public accounting. However, others have also embarked on careers in managerial accounting and government accounting. A number of graduates have entered corporations as accountants and have moved into other areas such as management and marketing.

## Minor Requirements

A minor in accounting may be earned by completing the following requirements:

- ACCT 0201 - FINANCIAL ACCOUNTING CONCEPTS
- ACCT 0202 - MANAGERIAL ACCOUNTING CONCEPTS
- ACCT 1301 - INTERMEDIATE ACCOUNTING 1
- ACCT 1302 - INTERMEDIATE ACCOUNTING 2
- ACCT 1303-STRATEGIC COST MANAGEMENT
- ACCT 1304 - FEDERAL INCOME TAXES


## Total credits required for the minor: 19

*required for the business management major

## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Application Software Development Minor

## Program Contact: Dr. Ken Wang

Academic Division: Management and Education

## Program Description

The minor in Application Software Development provides core computer programming concepts and skills allowing students in other majors and disciplines to possess critical knowledge which will be beneficial in many career and graduate school situations. The benefit of securing this type of knowledge strengthens your preparation and understanding of the ever-increasing role information technology plays in supporting all disciplines and career paths.

## Minor Requirements

For the Application Software Development minor, students must complete 18 credits from the following:

- CIST 0150 - FUNDAMENTALS OF PROGRAMMING
- CIST 0163 - INTRODUCTION TO WEB PROGRAMMING
- CIST 0265 - OBJECT ORIENTED PROGRAMMING


## Choose at least 3 from the following:

- CIST 1301 - ADVANCED WEB DEVELOPMENT
- EST 1301 - SENSORS AND AUTOMATION
- CIST 1307 - DATABASE DESIGN AND MANAGEMENT
- CIST 1310 - SYSTEMS ANALYSIS AND DESIGN
- CIST 1415 - DATA ANALYTICS
- CIST 1421 - MOBILE APPLICATION PROGRAMMING
- CIST 1422 - GAME DESIGN \& PROGRAMMING

Total Credits: 18

## Athletic Coaching Minor

Contact: Dr. Jodi Burns

Academic Division: Management and Education

## Program Description:

Our athletic coaching minor is designed to prepare you for a career in sport coaching. Our comprehensive program combines a liberal arts background with specialized courses that focus on the psychological, legal, business, and coaching practices aspects related to coaching.

## Minor Requirements

Students may earn a minor in athletic coaching by completing the following requirements:

- EXSCI 0204 - FIRST AID/CPR
- HPRED 0202 - PSYCHOLOGY OF SPORT
- HPRED 1307 - PRIN ETHICS \& PRACT IN COACHING
- HPRED 1308 - COACHING STUDIES
- HPRED 1401 - LEGAL LIABILITY IN SPORTS
- HPRED 0210 - THE GOVERNANCE AND MANAGEMENT OF SPORT


## Total Credits: 17

Note:

Students majoring in either sport and recreation management must take the following additional courses to earn a minor in athletic coaching:

- PSY 0202 - CHILD DEVELOPMENT
- PSY 0203 - SOCIAL PSYCHOLOGY
- MGMT 0110 - PRINCIPLES OF MANAGEMENT


## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Business Minor

Program Contact: Dr. Amy Gresock
Academic Division: Management and Education

## Program Description:

There's something here for everyone so come on in and take a look at what we're all about.
The objective of our business management program is to provide you with a comprehensive undergraduate preparation for a variety of administrative positions. Consistent with our mission, our business management program emphasizes a broad liberal arts requirement, primarily during your first two years of study.

You may earn a minor in business management if you major in a discipline other than business management.

## Minor Requirements

Students who major in a discipline other than business management may earn a minor in business management by completing the following requirements:

- MGMT 0110 - PRINCIPLES OF MANAGEMENT
- ACCT 0201 - FINANCIAL ACCOUNTING CONCEPTS
- ACCT 0202 - MANAGERIAL ACCOUNTING CONCEPTS
- MIS 0208 - BUSINESS INFORMATION SYSTEMS
- FIN 1301 - CORPORATE FINANCE
- MRKT 1301 - PRINCIPLES OF MARKETING
- MGMT 1303-BUSINESS ETHICS
- MGMT 1305 - INTERNATIONAL MANAGEMENT

OR

- MGMT 1449 - ECONOMIC SYSTEMS


## Total Credits: 25

## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Cybersecurity and Digital Forensics Minor

Program Contact: Dr. Ken Wang

Academic Division: Management and Education

## Program Description:

The minor in Cybersecurity and Digital Forensics provides core computer, systems and network security and forensics skills and concepts allowing students in other majors and disciplines to possess critical knowledge which will be beneficial in many career and graduate school situations. The benefit of securing this type of knowledge strengthens your preparation and understanding of the ever-increasing role information technology plays in supporting all disciplines and career paths.

## Minor Requirements

For the Cybersecurity and Digital Forensics minor, students must complete 18 credits from the following:

- CIST 0165 - NETWORKING 1
- CIST 0166 - NETWORKING 2
- CIST 0261 - COMPUTER SECURITY


## Choose at least 3 from the following:

- CIST 1326 - DIGITAL FORENSICS
- CIST 1327 - INTRUSION DETECTION \& INCIDENT RESPONSE
- CIST 1328 - NETWORK SECURITY \& CRYPTOGRAPHY
- CIST 1432 - ETHICAL HACKING
- CIST 1401 - INFORMATION ASSURANCE


## Total Credits:18

## Economics Minor

Program Contact: Dr. Shailendra Gajanan

Academic Division: Management and Education

## Program Description:

Taking a minor in economics will strengthen your core academic discipline.

## Minor Requirements

A minor in economics can be earned by completing the following requirements:

- ECON 0102 - INTRODUCTION TO MICROECONOMICS
- ECON 0103 - INTRODUCTION TO MACROECONOMICS
- ECON 0201 - MONEY AND BANKING
- ECON 0204 - STATISTICAL METHODS
- Choose any upper-level economics (ECON) elective - 3 Credits

Total Credits: 16

## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Education Minor

Program Contact: Dr. Jonathan Chitiyo
Visit our Teacher Education Website
Academic Division: Management and Education

## Program Description

Our non-teaching education minor will enable you to be more prepared in an educational environment or in any area that works with the needs of children.

## Minor Requirements

A nonteaching education minor that will not result in certification may be earned by completing the following requirements:

- EDUC 0204 - INTRODUCTION TO EDUCATION
- EDUC 0230 - FAMILY AND COMMUNITY RELATIONSHIPS
- EDUC 0255 - READINGS IN CHILDREN'S LITERTR or
- EDUC 0275 - ADOLESCENT LITERATURE
- EDUC 1325 - DEVELOPMENT OF CHILDREN WITH EXCEPTIONAL NEEDS
- EDUC 1350 - EDUCATIONAL PSYCH \& MEASUREMENT


## Choose one course from the following:

- ADMJ 0101 - INTRO TO CRIMINAL JUSTICE
- SOC 0201 - SOCIOLOGY OF GENDER
- SOC 0204 - SOCIOLOGY OF DEVIANCE
- SOC 1301-THE FAMILY
- SOC 1306 - WORK AND SOCIETY
- PSY 0202 - CHILD DEVELOPMENT
- PSY 0206 - ABNORMAL PSYCHOLOGY


## Total Credits: 18

Students seeking the education minor must have an education advisor.

## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Finance Minor

Program Contact: Professor John Crawford
Academic Division: Management and Education

## Program Description:

If you are majoring in business management, a minor in finance will prepare you for a career in finance.

## Minor Requirements

- FIN 1301 - CORPORATE FINANCE
- ACCT 0201 - FINANCIAL ACCOUNTING CONCEPTS (with recitation)


## Additional Required courses:

- FIN 1302 - INVESTMENTS
- FIN 1303 - ANALYSIS OF FINANCIAL STATEMENTS
- FIN 1304 - FINANCL MARKETS AND INSTITUTIONS
- FIN 1401 - INTERNATIONAL FINANCE
- Choose any upper level ACCT or FIN course (3 credits)


## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Hospitality Management Minor

Academic Division: Management and Education
Program Description: Minor in Hospitality Management.

## Required Courses:

- MRKT 1301 - PRINCIPLES OF MARKETING
- HMGT 0101 - INTRODUCTION TO HOSPITALITY MANAGEMENT
- HMGT 0210 - LEGAL ISSUES IN THE HOSPITALITY AND TOURISM INDUSTRY
- HMGT 0220 - FOODSERVICE MANAGEMENT
- HMGT 1310 - HOTEL OPERATIONS
- Choose any upper level HMGT course ( 3 credits)


## Human Resource Management Minor

Program Contact: Dr. Amy Gesock
Academic Division: Management and Education
Program Description: Minor in Human Resource Management.

## Required Courses:

- MGMT 0110 - PRINCIPLES OF MANAGEMENT
- SOC 0101 - INTRODUCTION TO SOCIOLOGY
- MGMT 1301-ORGANIZATIONAL BEHAVIOR
- MGMT 1309 - MANAGING WORKPLACE DIVERSITY
- MGMT 1320 - HUMAN RESOURCES MANAGEMENT
- MGMT 1449 - ECONOMIC SYSTEMS

Total credits required for the minor: 18

## International Business Minor

Program Contact: Dr. Amy Gresock
Academic Division: Management and Education

## Program Description:

If you are majoring in business management, a concentration in international business will prepare you for a career in international business. In the concentration, you will take a combination of courses in international business, foreign language, and culture. You will also be required to study abroad.

## Minor Requirements

A minor in international business can be earned by completing the following:

- ACCT 0201 - FINANCIAL ACCOUNTING CONCEPTS
- MGMT 0110 - PRINCIPLES OF MANAGEMENT
- MRKT 1301 - PRINCIPLES OF MARKETING
- MGMT 1305-INTERNATIONAL MANAGEMENT
- GEOG 0101 - WORLD REGIONAL GEOGRAPHY
- MGMT 1449 - ECONOMIC SYSTEMS
- FIN 1401 - INTERNATIONAL FINANCE
- MRKT 1420 - INTERNATIONAL MARKETING

Note:

For the non-business major, MGMT 0110 , ACCT 0201 and MRKT 1301 should be required as they are pre-requisites.

## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Management Information Systems Minor

Program Contact: Dr. Ken Wang
Academic Division: Management and Education

## Program Description:

Information technology is the unifying theme in today's business environment. It has opened new markets and new distribution channels. It has created new product and service opportunities. Information systems are used to make effective business decisions that are critical to the success of the enterprise. This program will help you to broaden your exposure to information technology and its use in business and industry.

## Minor Requirements

A minor in management information systems (MIS) can be earned by completing the following 22 credits:

- MIS 0208 - BUSINESS INFORMATION SYSTEMS
- CIST 0150 - FUNDAMENTALS OF PROGRAMMING
- ACCT 0201 - FINANCIAL ACCOUNTING CONCEPTS
- MGMT 0110 - PRINCIPLES OF MANAGEMENT

Choose one:

- FIN 1301 - CORPORATE FINANCE

OR

- MRKT 1301 - PRINCIPLES OF MARKETING


## Choose two approved electives from this list:

- CIST 1311 - ELECTRONIC COMMERCE
- CIST 0265 - OBJECT ORIENTED PROGRAMMING
- CIST 1307 - DATABASE DESIGN AND MANAGEMENT
- CIST 1310 - SYSTEMS ANALYSIS AND DESIGN


## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Marketing Minor

Program Contact: Dr. Wes Chiang

Academic Division: Management and Education

## Program Description:

Our marketing minor will prepare you for a variety of careers in marketing. Our course selection is flexible. And, there are complementary courses offered by other programs. That means you can pursue a particular area of interest such as pharmaceutical sales, sports media management, or etailing ventures.

## Minor Requirements

* required for the major
- MRKT 1301 - PRINCIPLES OF MARKETING *
- MGMT 0110 - PRINCIPLES OF MANAGEMENT


## Four of the following:

- MRKT 1405 - MARKETING MANAGEMENT
- MRKT 1410 - MARKETING RESEARCH
- MRKT 1415-CONSUMER BEHAVIOR
- MRKT 1420 - INTERNATIONAL MARKETING
- MRKT 1499 - INTERNSHIP: MARKETING


## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Philosophy Minor

## Program Contact: Dr. Julia Morgan

Academic Division: Behavioral and Social Sciences

## Program Description:

Philosophy deals with the questions raised by people as they attempt to understand life and the world in which they live. Our philosophy courses explore ways of thinking about those questions by using the writings of philosophers -- past and present -- as guides and challenges. Philosophy examines methods of logical argumentation and critical thinking, particularly as they apply to moral issues and to ultimate issues such as the meaning of life and the reality of God.

## Minor Requirements

A minor in philosophy may be earned by completing the following requirements:

- PHIL 0101 - INTRODUCTION TO PHILOSOPHY or
- PHIL 0110 - ETHICS
- Four additional courses in philosophy, at least one of which must be at the 1300 level or above-12 Credits


## Total Credits: 15

## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Recreation Administration Minor

Contact: Dr. Jodi Burns

## Minor Requirements

Students may earn a minor in recreation administration by completing the following requirements:

- MGMT 0110 - PRINCIPLES OF MANAGEMENT
- HPRED 0202 - PSYCHOLOGY OF SPORT
- HPRED 0210 - THE GOVERNANCE AND MANAGEMENT OF SPORT
- HPRED 1401 - LEGAL LIABILITY IN SPORTS


## Two of the following specializations:

- MRKT 1301 - PRINCIPLES OF MARKETING
- HPRED 1301 - SPORTS MARKETING
- MGMT 1320 - HUMAN RESOURCES MANAGEMENT
- ACCT 0201 - FINANCIAL ACCOUNTING CONCEPTS
- FIN 1301 - CORPORATE FINANCE


## Total Credits: 18

Note: Sport and recreation management majors may not minor in recreation administration.

## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Sports Management Minor

## Program Contact: Dr. Jodi Burns

Program Description: Minor in Sport Management

## Required Courses:

- MRKT 1301 - PRINCIPLES OF MARKETING
- HPRED 0210 - THE GOVERNANCE AND MANAGEMENT OF SPORT
- HPRED 1407 - FACILITY AND EVENT MANAGEMENT
- HPRED 1301 - SPORTS MARKETING
- HPRED 1401 - LEGAL LIABILITY IN SPORTS
- HPRED 1310 - ETHICS AND LEADERSHIP IN SPORT


## Systems and Network Administration Minor

Program Contact: Dr. Ken Wang
Academic Division: Management and Education
Program Description:
The minor in Systems and Network administration provides core computer systems and operations concepts and skills allowing students in other majors and disciplines to possess critical knowledge which will be beneficial in many career and graduate school situations. The benefit of securing this type of knowledge strengthens your preparation and understanding of the ever-increasing role information technology plays in supporting all disciplines and career paths.

## Minor Requirements

For the Systems and Network Administration minor, students must complete 18 credits from the following:

- CIST 0165 - NETWORKING 1
- CIST 0166 - NETWORKING 2
- CIST 0261 - COMPUTER SECURITY
- CIST 0262 - SYSTEMS ADMINISTRATION

Choose at least 2 from the following:

- CIST 1325 - INTRODUCTION TO SUPPLY CHAIN MANAGEMENT
- CIST 1342 - HOST SCRIPTING
- CIST 1344 - VIRTUALIZATION \& CLOUD TECHNOLOGY
- CIST 1327 - INTRUSION DETECTION \& INCIDENT RESPONSE
- CIST 1328 - NETWORK SECURITY \& CRYPTOGRAPHY
- CIST 1443 - NETWORK \& SYSTEM ADMINISTRATION PRACTICUM

Total Credits: 18

# The Division of Physical and Computational Sciences 

## Major

## Applied Mathematics, BS

## Contact: Dr. Marius Buliga

Mathematics includes the study of probability and statistics, modeling, computer simulation languages, and methods of application. Mathematics provides an excellent foundation for other fields of study ranging from the sciences and technology to business and law. The combination of mathematics, physics, and computer science creates opportunities for employment and also prepares students for graduate study. Applied Mathematics majors can simultaneously earn a degree in Mathematics Education by taking some education courses.

## Degree Requirements

Course Requirements in the Major

- MATH 0140 - CALCULUS 1
- MATH 0150 - CALCULUS 2
- MATH 0201 - CALCULUS 3
- MATH 0202 - ORDINARY DIFFERENTIAL EQUATIONS
- MATH 0206 - LINEAR ALGEBRA
- MATH 1303 - MATHEMATICAL MODELING
- MATH 1312 - ABSTRACT ALGEBRA \& NUMBER THEORY
- MATH 1309 - APPLIED PROBLTY AND STATISTICS
- MATH 1318 - INTRODUCTION TO ANALYSIS
- MATH 1452 - CAPSTONE: MATHEMATICS
- MATH 0135 - DISCRETE MATHEMATICS
- PHYS 0201 - FOUNDATIONS OF PHYSICS 1

Credits: 43

Other required courses:

- MATH 1320 - OPERATIONS RESEARCH
- MATH 1317 - INTRODUCTION TO SCIENTIFIC COMPUTATION

Credits: 6
Total credits required for the major: 49

## General Education Program Requirements and Electives-Variable

(See General Education Program and General Requirements for the Bachelor's Degree under Academic Policies and Guidelines for further details.)

## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Suggested Course of Study

## First Year

- MATH 0140 - CALCULUS 1
- MATH 0150 - CALCULUS 2
- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- MATH 0135 - DISCRETE MATHEMATICS
- FS 0104 - FIRST YEAR TRANSITION SEMINAR

Credits: 32

## Second Year

- MATH 0201 - CALCULUS 3
- MATH 0202 - ORDINARY DIFFERENTIAL EQUATIONS
- MATH 0206 - LINEAR ALGEBRA
- MATH 1309 - APPLIED PROBLTY AND STATISTICS
- GE credits (15)
- MATH 1317 - INTRODUCTION TO SCIENTIFIC COMPUTATION

Credits: 32

## Third Year

- MATH 1303 - MATHEMATICAL MODELING
- MATH 1318 - INTRODUCTION TO ANALYSIS
- MATH 1320 - OPERATIONS RESEARCH
- PHYS 0201 - FOUNDATIONS OF PHYSICS 1
- GE credits (18)

Credits: 32

## Fourth Year

- MATH 1452 - CAPSTONE: MATHEMATICS
- MATH 1312 - ABSTRACT ALGEBRA \& NUMBER THEORY

Elective credits (18)
Credits: 25

## Actuarial Science Concentration

- MATH 0140 - CALCULUS 1
- MATH 0150 - CALCULUS 2
- MATH 0201 - CALCULUS 3
- MATH 0202 - ORDINARY DIFFERENTIAL EQUATIONS
- MATH 0206 - LINEAR ALGEBRA
- MATH 1309 - APPLIED PROBLTY AND STATISTICS
- MATH 1318 - INTRODUCTION TO ANALYSIS
- MATH 1452 - CAPSTONE: MATHEMATICS
- ACCT 0201 - FINANCIAL ACCOUNTING CONCEPTS
- ACCT 0202 - MANAGERIAL ACCOUNTING CONCEPTS
- ECON 0102 - INTRODUCTION TO MICROECONOMICS OR
- ECON 0103 - INTRODUCTION TO MACROECONOMICS
- MATH 0135 - DISCRETE MATHEMATICS
- MATH 1320 - OPERATIONS RESEARCH
- FIN 1301 - CORPORATE FINANCE

Credits: 48

Note: Seniors will be required to take one of the first two actuarial exams in their senior year.
Although not required, it is suggested that students in actuarial science take as many of the following courses as possible:

- ECON 0204 - STATISTICAL METHODS
- ECON 0206 - INTERMEDIATE MICROECONOMICS
- ECON 0207 - INTERMEDIATE MACROECONOMICS
- ECON 0208 - Mathematical Economics - 3 Credits
- FIN 1301 - CORPORATE FINANCE


## Physics Concentration

## Core Requirements in Mathematics

- MATH 0140 - CALCULUS 1
- MATH 0150 - CALCULUS 2
- MATH 0201 - CALCULUS 3
- MATH 0202 - ORDINARY DIFFERENTIAL EQUATIONS
- MATH 0206 - LINEAR ALGEBRA
- MATH 1303 - MATHEMATICAL MODELING
- MATH 1309 - APPLIED PROBLTY AND STATISTICS
- MATH 1452-CAPSTONE: MATHEMATICS

Credits: 37

## Core Requirements in Physics

- PHYS 0202 - FOUNDATIONS OF PHYSICS 2
- PHYS 0203 - FOUNDATIONS OF PHYSICS 1 LAB
- PHYS 0204 - FOUNDATIONS OF PHYSICS 2 LAB

Select two courses from the following:

- PHYS 1302 - MODERN PHYSICS, ATOMS AND NUCLEI
- PHYS 1306-OPTICS

Credits: 18

## Total credits required for the major: 49

## Chemical and Petroleum Engineering, BS

## Engineering

Contact: Dr. Matt Kropf

## Degree Requirements

The Bachelor of Science degree in Mechanical Engineering Technology and Energy Engineering Technology may be completed at the Bradford campus. All other B.S. degrees in Engineering would be completed by starting at the Bradford campus, successfully completing the prerequisites to the junior year, and being accepted for Relocation to the Swanson School of Engineering in Pittsburgh to finish the degree.

An entering freshman must meet one of the following requirements to be admitted directly to the full Engineering curriculum at Pitt-Bradford.

1. SAT Math score of 500 or better, or
2. SAT Math score of 450 or better and high school GPA of 3.25 or better.

For those students who want to major in Engineering but do not meet either of the above requirements there is placement testing available and the ALEKS Math Bridge program. The ALEKS program is an opportunity for qualifying students to refresh their skills over the summer via a guided math learning platform. Upon completion of the ALEKS modules, you may then retake the Accuplacer math placement exam and potentially change your math placement based on those results.

## Fall

- FS 0102 - FIRST YEAR SEMINAR
- ENG 0101 - ENGLISH COMPOSITION 1
- MATH 0132 - PRECALCULUS
- CHEM 0101 - GENERAL CHEMISTRY 1 (or CHEM 0089)

Credits: 14

Spring

- ENG 0102 - ENGLISH COMPOSITION 2
- MATH 0140 - CALCULUS 1
- CHEM 0101 - GENERAL CHEMISTRY 1 or
- CHEM 0102 - GENERAL CHEMISTRY 2
- A humanities elective
- A social sciences elective

Credits: 17

## Note:

Progression to the engineering program is dependent upon successful completion of above coursework with a minimum GPA of 3.00.
Students must complete a minimum of 34 credits at Pitt-Bradford with a cumulative grade point average of 3.00 or higher before they are permitted to apply for relocation to the baccalaureate degree program at the Swanson School of Engineering in Pittsburgh. The first year of study is common to all engineering majors. Students pursuing bioengineering must relocate to the Swanson School of Engineering after completing 34 credits with a GPA of 3.50 or better. Students pursuing industrial engineering must relocate to the Swanson School of Engineering after completing 36 credits with a GPA of 3.00 or better. Mechanical and Elecrical Engineering students must complete 2 years with a GPA of 3.00 or higher.

Students who have a verbal SAT score below 500 are required to complete ENG 0101 , English Composition I and may be placed in ENG 0100 if their score is lower than 440 . Students who have a math SAT score below 500 are required to take the following courses:

## First Year

- ENGR 0015 - INTRODUCTION TO ENGINEERING ANALYSIS
- ENGR 0016-INTRODUCTION TO ENGINEERING COMPUTING
- ENGR 0081 - FRESHMAN ENGINEERING SEMINAR 1
- ENGR 0082 - FIRST-YEAR ENGINEERING SEMINAR 2
- CHEM 0101 - GENERAL CHEMISTRY 1
- CHEM 0102 - GENERAL CHEMISTRY 2
- MATH 0140 - CALCULUS 1
- MATH 0150 - CALCULUS 2
- PHYS 0201 - FOUNDATIONS OF PHYSICS 1
- PHYS 0202 - FOUNDATIONS OF PHYSICS 2
- Humanities or social science elective course - 3 Credits if able to fit into schedule
- ENG 0102 - ENGLISH COMPOSITION 2
- ENG 0101 - ENGLISH COMPOSITION 1

Credits: 36

## The second year of study

The second year of study initiates course work in a specific engineering major. Following are the outlines of courses for:

## Second Year

- CHE 0035 - INTRODUCTRY CHEMICAL ENGINEERING
- CHE 0036 - CHEMCL ENGRNG THERMODYNAMICS 1
- CHE 1008 - INTRODCTN TO STAGED SEPARATIONS
- ENGR 0135 - STATICS \& MECHC OF MATERIALS 1
- ENGR 0085 - ENGINEERING SEMINAR
- CHEM 0206 - ORGANIC CHEMISTRY 1
- CHEM 0207-ORGANIC CHEMISTRY 1 LAB
- CHEM 0208 - ORGANIC CHEMISTRY 2
- CHEM 0209 - ORGANIC CHEMISTRY 2 LAB
- MATH 0201 - CALCULUS 3
- MATH 0202 - ORDINARY DIFFERENTIAL EQUATIONS
- MATH 0206 - LINEAR ALGEBRA
- Humanities or social science elective courses - 3 Credits


## Credits: 34

## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Chemistry, BS

Contacts: Dr. David Soriano
The Bachelor of Science degree in chemistry is an excellent preparation for careers in industry and government and for graduate study. Chemistry majors have the opportunity to become directly involved in research as part of their undergraduate studies.

## Degree Requirements

## Course Requirements in the Major

- CHEM 0101 - GENERAL CHEMISTRY 1
- CHEM 0102 - GENERAL CHEMISTRY 2
- CHEM 0201 - INTRODUCTION TO ANALYTICAL CHEMISTRY
- CHEM 0206 - ORGANIC CHEMISTRY 1
- CHEM 0207 - ORGANIC CHEMISTRY 1 LAB
- CHEM 0208 - ORGANIC CHEMISTRY 2
- CHEM 0209 - ORGANIC CHEMISTRY 2 LAB
- CHEM 1301 - PHYSICAL CHEMISTRY 1
- CHEM 1302 - PHYSICAL CHEMISTRY 2
- CHEM 1305 - ANALYTICAL INSTRUMENTATION
- CHEM 1451 - CAPSTONE: CHEMISTRY
- Chemistry upper-level electives - 6-8 Credits

Credits: 42-43
Other required courses:

- MATH 0140 - CALCULUS 1
- MATH 0150 - CALCULUS 2
- MATH 0201 - CALCULUS 3
- PHYS 0201 - FOUNDATIONS OF PHYSICS 1
- PHYS 0202 - FOUNDATIONS OF PHYSICS 2
- PHYS 0203 - FOUNDATIONS OF PHYSICS 1 LAB
- PHYS 0204 - FOUNDATIONS OF PHYSICS 2 LAB

Credits: 22

## Total credits required for the major: 64-65

## General Education Program Requirements and Electives-Variable

(See General Education Program and General Requirements for the Bachelor's Degree under Academic Policies and Guidelines for further details.)

## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Suggested Course of Study

## First Year

- FS 0104 - FIRST YEAR TRANSITION SEMINAR
- CHEM 0101 - GENERAL CHEMISTRY 1
- CHEM 0102 - GENERAL CHEMISTRY 2
- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- MATH 0140 - CALCULUS 1
- MATH 0150 - CALCULUS 2
- General education or elective courses - 7 Credits

Credits: 32

Second Year

- CHEM 0201 - INTRODUCTION TO ANALYTICAL CHEMISTRY
- CHEM 0206 - ORGANIC CHEMISTRY 1
- CHEM 0207-ORGANIC CHEMISTRY 1 LAB
- CHEM 0208 - ORGANIC CHEMISTRY 2
- CHEM 0209 - ORGANIC CHEMISTRY 2 LAB
- MATH 0201 - CALCULUS 3
- General Education Elective Courses- 15 credits

Credits: 31

## Third Year

- CHEM 1301 - PHYSICAL CHEMISTRY 1
- CHEM 1302 - PHYSICAL CHEMISTRY 2
- CHEM 1305 - ANALYTICAL INSTRUMENTATION
- General education or elective courses - 9 Credits
- PHYS 0201 - FOUNDATIONS OF PHYSICS 1
- PHYS 0202 - FOUNDATIONS OF PHYSICS 2
- PHYS 0203 - FOUNDATIONS OF PHYSICS 1 LAB
- PHYS 0204 - FOUNDATIONS OF PHYSICS 2 LAB

Credits: 30

## Fourth Year

- CHEM 1451 - CAPSTONE: CHEMISTRY
- General education or elective courses - 10 Credits
- Upper-level chemistry elective - 12 Credits

Credits: 30-31

## Electrical Engineering, BS

## Engineering

Contact: Dr. Matt Kropf

## Degree Requirements

The Bachelor of Science degree in Mechanical Engineering Technology and Energy Engineering Technology may be completed at the Bradford campus. All other B.S. degrees in Engineering would be completed by starting at the Bradford campus, successfully completing the prerequisites to the junior year, and being accepted for Relocation to the Swanson School of Engineering in Pittsburgh to finish the degree.

An entering freshman must meet one of the following requirements to be admitted directly to the full Engineering curriculum at Pitt-Bradford.

1. SAT Math score of 500 or better, or
2. SAT Math score of 450 or better and high school GPA of 3.25 or better.

For those students who want to major in Engineering but do not meet either of the above requirements there is placement testing available and the ALEKS Math Bridge program. The ALEKS program is an opportunity for qualifying students to refresh their skills over the summer via a guided math learning platform. Upon completion of the ALEKS modules, you may then retake the Accuplacer math placement exam and potentially change your math placement based on those results.

## Fall

- FS 0102 - FIRST YEAR SEMINAR
- ENG 0101 - ENGLISH COMPOSITION 1
- MATH 0132 - PRECALCULUS
- CHEM 0101 - GENERAL CHEMISTRY 1 (or CHEM 0089)

Credits: 14

## Spring

- ENG 0102 - ENGLISH COMPOSITION 2
- MATH 0140 - CALCULUS 1
- CHEM 0101 - GENERAL CHEMISTRY 1 or
- CHEM 0102 - GENERAL CHEMISTRY 2
- A humanities elective
- A social sciences elective

Credits: 17

## Note:

Progression to the engineering program is dependent upon successful completion of above coursework with a minimum GPA of 3.00 .
Students must complete a minimum of 34 credits at Pitt-Bradford with a cumulative grade point average of 3.00 or higher before they are permitted to apply for relocation to the baccalaureate degree program at the Swanson School of Engineering in Pittsburgh. The first year of study is common to all engineering majors. Students pursuing bioengineering must relocate to the Swanson School of Engineering after completing 34 credits with a GPA of 3.50 or better. Students pursuing industrial engineering must relocate to the Swanson School of Engineering after completing 36 credits with a GPA of 3.00 or better. Mechanical and Elecrical Engineering students must complete 2 years with a GPA of 3.00 or higher.

Students who have a verbal SAT score below 500 are required to complete ENG 0101 , English Composition I and may be placed in ENG 0100 if their score is lower than 440 . Students who have a math SAT score below 500 are required to take the following courses:

## First Year

- ENGR 0015 - INTRODUCTION TO ENGINEERING ANALYSIS
- ENGR 0016 - INTRODUCTION TO ENGINEERING COMPUTING
- ENGR 0081 - FRESHMAN ENGINEERING SEMINAR 1
- ENGR 0082 - FIRST-YEAR ENGINEERING SEMINAR 2
- CHEM 0101 - GENERAL CHEMISTRY 1
- CHEM 0102 - GENERAL CHEMISTRY 2
- MATH 0140 - CALCULUS 1
- MATH 0150 - CALCULUS 2
- PHYS 0201 - FOUNDATIONS OF PHYSICS 1
- PHYS 0202 - FOUNDATIONS OF PHYSICS 2
- Humanities or social science elective course - 3 Credits if able to fit into schedule
- ENG 0102 - ENGLISH COMPOSITION 2
- ENG 0101 - ENGLISH COMPOSITION 1

Credits: 36

## The second year of study

The second year of study initiates course work in a specific engineering major. Following are the outlines of courses for:

## Second Year

- ECE 0041 - LINEAR CIRCUITS AND SYSTEMS 2
- ECE 0132 - DIGITAL LOGIC
- ECE 0142-COMPUTER ORGANIZATION
- ECE 0257 - ANALYSIS AND DESIGN OF ELECTRONIC CIRCUITS
- ENGR 0085 - ENGINEERING SEMINAR
- MATH 0201 - CALCULUS 3
- MATH 0202 - ORDINARY DIFFERENTIAL EQUATIONS
- MATH 0206 - LINEAR ALGEBRA
- Humanities or social science elective courses - 9 Credits

Credits: 34

## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

# Energy Engineering Technology, BS 

Contact: Dr. Matt Kropf

The proposed curriculum is designed to provide an introductory level education of multi-disciplinary engineering technology skills to incoming students. The coursework will achieve this through the broad requirement of physics, calculus, and general engineering technology courses. In addition to these core competencies, the program introduces the students to a variety of energy-related industries. With this combination, students are then encouraged to begin specialization through selection of concentration electives. Specifically, students can focus on energy efficiency, renewable energy, or conventional energy resources. This organization helps students to translate the learning of applied skills to current needs in the industry, making them more marketable in the field. Finally, a curricular emphasis on sensors and controls will be implemented through required coursework in SCADA systems, sensor and automation. This emphasis is in response to the pervasive growth in the use of sensors and robotics in nearly all energy-related industries, and more broadly, in nearly all industries with a need for engineering technology graduates.

## Curriculum

- MATH 0132 - PRECALCULUS
- MATH 0142 - TECHNICAL CALCULUS I
- MATH 0143 - TECHNICAL CALCULUS II
- MATH 0144 - TECHNICAL DIFFERENTIAL EQUATIONS
- CHEM 0101 - GENERAL CHEMISTRY 1
- PHYS 0101 - INTRODUCTION TO PHYSICS 1
- PHYS 0102 - INTRODUCTION TO PHYSICS 2
- GEOL 0101 - PHYSICAL GEOLOGY
- WRITNG 1305 - TECHNICAL WRITING
- ENGR 0015 - INTRODUCTION TO ENGINEERING ANALYSIS
- ENGR 0016 - INTRODUCTION TO ENGINEERING COMPUTING
- ENGR 0081 - FRESHMAN ENGINEERING SEMINAR 1
- ENGR 0082 - FIRST-YEAR ENGINEERING SEMINAR 2
- ET 0101 - MACHINE SHOP
- ET 0115 - MECHANICS-STATICS
- ET 0201 - MECHANICS-DYNAMICS
- ET 0202 - STRENGTH OF MATERIALS
- ET 0203 - STRENGTH OF MATERIALS LAB
- ET 0205 - ENGINEERING DESIGN
- ET 1300 - ENGINEERING ECONOMICS
- EET 0210 - CIRCUITS 1 BASIC ELECTRICAL TECH
- EET 0211 - BASIC ELECTRICAL TECH LAB
- EGET 1300 - PRINCIPLES OF ENERGY ENGINEERING
- GEOL 0109 - CONCEPTS IN GIS
- PET 0209 - INTRODUCTION TO SUPERVISORY CONTROL AND DATA ACQUISITION
- EGET 1400-COMBUSTION
- EST 1301 - SENSORS AND AUTOMATION
- MET 1303-THERMODYNAMICS
- MET 1403-APPLIED THERMODYNAMICS
- MET 1306-CADD/CAE COMPUTER-AIDED DRAFTING \& DESIGN COMPUTER-AIDED ENGINEERING
- MET 1308 - ENGINEERING MEASUREMENTS I
- MET 1309-ENGINEERING MEASUREMENTS II
- EGET 1402 - SENIOR PROJECT PROPOSAL
- EGET 1403 - SENIOR DESIGN PROJECT


## Area of Concentration

Students are encouraged to begin specializing in a selected area of Energy. Accordingly, the degree requires at least 6 credits in one of the following focus areas:

## Efficiency:

- EGET 1401 - ENERGY SYSTEMS EFFICIENCY
- MET 1400 - MANUFACTURING PROCESSES
- MET 1401 - MANUFACTURING LAB
- MET 1404 - MACHINE DESIGN
- MET 1402 - HEAT TRANSFER
- MET 1301 - FLUID MECHANICS
- MET 1302 - FLUID MECHANICS LAB


## Renewables:

- CHEM 0189 - INTRODUCTION TO BIOFUELS
- CHEM 1312 - ADVANCED BIOCHEMISTRY
- EGET 1302 - WIND AND SOLAR POWER SYSTEMS


## Conventional:

- PET 0103 - PETROLEUM GEOLOGY AND GEOPHYSICS
- PET 0203 - NATURAL GAS PROCESSING
- PET 0201 - PETROLEUM AND NATURAL GAS CHEMISTRY
- GEOL 1320 - ADVANCED GIS
- GEOL 1404 - COAL GEOLOGY
*Program director approved courses in PET, EST, or CHEM


## 127 Credits

## Suggested Course of Study

## First Year

- MATH 0132 - PRECALCULUS
- ENG 0101 - ENGLISH COMPOSITION 1
- ENGR 0015 - INTRODUCTION TO ENGINEERING ANALYSIS
- ENGR 0081 - FRESHMAN ENGINEERING SEMINAR 1
- CHEM 0101 - GENERAL CHEMISTRY 1
- ET 0101 - MACHINE SHOP
- MATH 0142 - TECHNICAL CALCULUS I
- ENG 0102 - ENGLISH COMPOSITION 2
- PHYS 0101 - INTRODUCTION TO PHYSICS 1
- ENGR 0016-INTRODUCTION TO ENGINEERING COMPUTING
- ENGR 0082 - FIRST-YEAR ENGINEERING SEMINAR 2
- PEDC credit

Credits: 30

## Second Year

- MATH 0143-TECHNICAL CALCULUS II
- PHYS 0102 - INTRODUCTION TO PHYSICS 2
- ET 0115-MECHANICS-STATICS
- EET 0210 - CIRCUITS 1 BASIC ELECTRICAL TECH
- EET 0211 - BASIC ELECTRICAL TECH LAB
- GEOL 0109 - CONCEPTS IN GIS
- MATH 0144 - TECHNICAL DIFFERENTIAL EQUATIONS
- ET 0201 - MECHANICS-DYNAMICS
- ET 0202 - STRENGTH OF MATERIALS
- ET 0203 - STRENGTH OF MATERIALS LAB
- ET 0205 - ENGINEERING DESIGN
- GE course

Credits: 35

## Third Year

- MET 1303-THERMODYNAMICS
- MET 1300
- PET 0209 - INTRODUCTION TO SUPERVISORY CONTROL AND DATA ACQUISITION
- GEOL 0101 - PHYSICAL GEOLOGY
- MET 1306 - CADD/CAE COMPUTER-AIDED DRAFTING \& DESIGN COMPUTER-AIDED ENGINEERING
- GE course
- MET 1308 - ENGINEERING MEASUREMENTS I
- MET 1403 - APPLIED THERMODYNAMICS
- EST 1301 - SENSORS AND AUTOMATION
- ET 1300 - ENGINEERING ECONOMICS
- GE course


## Fourth Year

- EGET 1400 - COMBUSTION
- MET 1309 - ENGINEERING MEASUREMENTS II
- Concentration Course
- WRITNG 1305 - TECHNICAL WRITING
- EGET 1402 - SENIOR PROJECT PROPOSAL
- GE course
- Concentration course
- Concentration course
- EGET 1403 - SENIOR DESIGN PROJECT
- GE course
- GE course

Credits: 30

## Energy Science and Technology, BS

## Contact: Dr. Matt Kropf

This program is designed to provide an introductory level education of multi-disciplinary engineering skills through the broad requirement of physics, calculus, and engineering analysis courses. In addition to these core math and science competencies, the first two years of the program introduces the students to a variety of energy related industries. With this combinations, students are then encouraged to begin specialization through approved upper-level electives. Specifically, students can focus on energy use in buildings, alternative energy production, petroleum technology, nuclear energy, or energy and the environment. This organization helps students to translate to applied skills, making them more marketable in the job market. Finally, a curricular emphasis on sensors and controls will be placed through an upper level course requirement and capstone project.

## Degree Requirements

## Course Requirements in the Major

- MATH 0140 - CALCULUS 1
- MATH 0150 - CALCULUS 2
- ES 0112 - INTRODUCTION TO ENERGY SCIENCE AND TECHNOLOGY
- ENGR 0015 - INTRODUCTION TO ENGINEERING ANALYSIS
- PHYS 0201 - FOUNDATIONS OF PHYSICS 1
- PHYS 0202 - FOUNDATIONS OF PHYSICS 2
- CHEM 0101 - GENERAL CHEMISTRY 1
- CHEM 0102 - GENERAL CHEMISTRY 2
- GEOL 0101 - PHYSICAL GEOLOGY
- ENGR 0135 - STATICS \& MECHC OF MATERIALS 1
- CHE 0036-CHEMCL ENGRNG THERMODYNAMICS 1 or
- MEMS 0051 - INTRODUCTION TO THERMODYNAMICS
- ECE 0031 - LINEAR CIRCUITS AND SYSTEMS 1
- ECON 0102 - INTRODUCTION TO MICROECONOMICS
- ECON 1307 - ECONOMICS OF ENERGY \& ENVIRONMNT
- EST 1301 - SENSORS AND AUTOMATION
- EST 1451 - CAPSTONE: ENERGY TECHNOLOGY
- GEOL 0109 - CONCEPTS IN GIS

Complete two of the following:

- PS 0102 - AMERICAN POLITICAL PROCESS
- PS 0209 Environmental Politics - 3 Credits
- ENVSTD 0102 - INTRO TO ENVIRONMENTAL STUDIES

Complete one of the following:

- PHIL 1445 - ENVIRONMENTAL ETHICS

Electives - 12 Credits

Students are encouraged to begin specialization in a selected area of Energy. Accordingly the degree requires at least 12 credits of approved electives, including 6 upper level credits, in a selected area of concentration, which includes, but is not limited to, petroleum technology, chemistry, biology, and environmental science.

## Total Credits: 36

## General Education Program Requirements and Electives-Variable

(See General Education Program and General Requirements for the Bachelor's Degree under Academic Policies and Guidelines for further details.)

## Suggested Course of Study

First Year, 1st Term

- ENG 0101 - ENGLISH COMPOSITION 1
- PHYS 0201 - FOUNDATIONS OF PHYSICS 1
- MATH 0140 - CALCULUS 1
- ENGR 0015 - INTRODUCTION TO ENGINEERING ANALYSIS
- FS 0104 - FIRST YEAR TRANSITION SEMINAR

Total Credits Per Term: 14

First Year, 2nd Term

- ENG 0102 - ENGLISH COMPOSITION 2
- PHYS 0202 - FOUNDATIONS OF PHYSICS 2
- MATH 0150 - CALCULUS 2
- ES 0112 - INTRODUCTION TO ENERGY SCIENCE AND TECHNOLOGY
- Physical Education Elective - 1 Credit

Total Credits Per Term: 15

Second Year, 1st Term

- ENGR 0011 - INTRO TO ENGINEERING ANALYSIS
- CHEM 0101 - GENERAL CHEMISTRY 1
- GEOL 0101 - PHYSICAL GEOLOGY
- GEOL 0109 - CONCEPTS IN GIS

Total Credits Per Term: 17

Second Year, 2nd Term

- CHE 0036 - CHEMCL ENGRNG THERMODYNAMICS 1
- MEMS 0051 - INTRODUCTION TO THERMODYNAMICS
- ENGR 0135 - STATICS \& MECHC OF MATERIALS 1
- CHEM 0102 - GENERAL CHEMISTRY 2
- General Education Elective - 3 Credits
- ENVSTD 0102 - INTRO TO ENVIRONMENTAL STUDIES OR PS 0102 or PS 0209

Total Credits Per Term: 16
Third Year, 1st Term

- ECON 0102 - INTRODUCTION TO MICROECONOMICS
- ENVSTD 0102 - INTRO TO ENVIRONMENTAL STUDIES or
- PS 0102 - AMERICAN POLITICAL PROCESS or
- PS 209
- ECE 0031 - LINEAR CIRCUITS AND SYSTEMS 1
- General Education Elective - 3 Credits UL major elective

Total Credits Per Term: 15
Third Year, 2nd Term

- Major Elective- 3 Credits
- ECON 1307 - ECONOMICS OF ENERGY \& ENVIRONMNT General education or elective courses - 9 Credits

Total Credits Per Term: 15
Fourth Year, 1st Term

- Upper Level Major Elective - 3 Credits
- EST 1301 - SENSORS AND AUTOMATION
- General Education Elective - 3 Credits
- General Education Elective - 3 Credits
- PHIL 1445 - ENVIRONMENTAL ETHICS

Total Credits Per Term: 16

## Fourth Year, 2nd Term

- Upper Level Major Elective - 3 Credits
- EST 1451 - CAPSTONE: ENERGY TECHNOLOGY
- General Education Elective - 3 Credits
- General Education Elective - 4 Credits


## Total Credits Per Term: 15

## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Engineering Science, AS

## Contact: Dr. Matt Kropf

The Associate of Science Degree in Engineering Science supports The University of Pittsburgh at Bradford's mission to addresses regional needs, especially those involving the rural communities within its immediate region. Engineering and technology skills are among the most sought after and have consistently been demonstrated to be in high demand.

Graduates of this two-year program will be prepared to enter most four-year engineering programs at the junior level. This new major will also provide students with an opportunity to certify their completion of the core "freshman-sophomore" engineering curriculum including courses in mathematics, physics, chemistry and various engineering courses.

## Degree Requirements

## Course Requirements in the Major

- ENG 0101 - ENGLISH COMPOSITION 1
- MATH 0132 - PRECALCULUS
- GE: Arts \& Letters elective - 3 Credits
- GE: Behavioral, Economics, \& Political Sciences - 3 Credits
- GE: History, Cultures, \& Philosophical Inquiry - 3 Credits
- Additional GE elective - 3 Credits
- CHEM 0101 - GENERAL CHEMISTRY 1
- CHEM 0102 - GENERAL CHEMISTRY 2
- PHYS 0201 - FOUNDATIONS OF PHYSICS 1
- PHYS 0202 - FOUNDATIONS OF PHYSICS 2
- MATH 0140 - CALCULUS 1
- MATH 0150 - CALCULUS 2
- MATH 0201 - CALCULUS 3 or
- MATH 0202 - ORDINARY DIFFERENTIAL EQUATIONS
- ENGR 0015 - INTRODUCTION TO ENGINEERING ANALYSIS
- ENGR 0016-INTRODUCTION TO ENGINEERING COMPUTING
- ENGR 0131-STATICS FOR CIVIL AND ENVIRONMENTAL ENGINEERS or
- ENGR 0135 - STATICS \& MECHC OF MATERIALS 1
- ECE 0031 - LINEAR CIRCUITS AND SYSTEMS 1
- ENGR 0081 - FRESHMAN ENGINEERING SEMINAR 1
- ENGR 0082 - FIRST-YEAR ENGINEERING SEMINAR 2
- ENGR electives - 6 Credits


## Total Credits required for the major: 65

## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Suggested Course of Study

## First Year

- ENGR 0015 - INTRODUCTION TO ENGINEERING ANALYSIS
- ENGR 0081 - FRESHMAN ENGINEERING SEMINAR 1
- ENG 0101 - ENGLISH COMPOSITION 1
- MATH 0132 - PRECALCULUS
- CHEM 0101 - GENERAL CHEMISTRY 1
- ENGR 0016-INTRODUCTION TO ENGINEERING COMPUTING
- ENGR 0082 - FIRST-YEAR ENGINEERING SEMINAR 2
- CHEM 0102 - GENERAL CHEMISTRY 2
- MATH 0140 - CALCULUS 1
- General education or elective courses - 6 Credits


## Second Year

- ENGR 0135 - STATICS \& MECHC OF MATERIALS 1

OR ENGR 0031

- MATH 0150 - CALCULUS 2
- ECE 0031 - LINEAR CIRCUITS AND SYSTEMS 1
- PHYS 0201 - FOUNDATIONS OF PHYSICS 1
- MATH 0201 - CALCULUS 3

OR MATH 0202
General education or elective courses - 6 Credits

- PHYS 0202 - FOUNDATIONS OF PHYSICS 2
- ENGR elective 6 credits


## Engineering, BS

Contact: Dr. Matt Kropf

## Degree Requirements

The bachelor of science degree in engineering is completed by starting at the Bradford campus, successfully completing the prerequisites to the junior year, and completing the degree at the Swanson School of Engineering in Pittsburgh.

An entering freshman must meet one of the following requirements to be admitted directly to the engineering program at Pitt-Bradford.

1. SAT Math score of 500 or better, or
2. SAT Math score of 450 or better and high school GPA of 3.25 or better.

For those students who want to major in engineering but do not meet either of the above requirements, an one-year pre-engineering program is required consisting of the following:

Fall

FS 0102 - FIRST YEAR SEMINAR

ENG 0101 - ENGLISH COMPOSITION 1

MATH 0132 - PRECALCULUS

CHEM 0101 - GENERAL CHEMISTRY 1 (or CHEM 0090)
Credits: 14

## Spring

## ENG 0102 - ENGLISH COMPOSITION 2

## MATH 0140 - CALCULUS 1

CHEM 0101-GENERAL CHEMISTRY 1 or CHEM 0102 - GENERAL CHEMISTRY 2

A humanities elective

A social sciences elective

Credits: 17

To be considered for relocation to the Swanson School of Engineering a student must have a cum GPA of at least 3.00 and completed the appropriate first-year Engineering coursework (minimum of 34 credits). Must earn C or better grades in Engineering curriculum (Calculus I, II, Physics I, II, CHEM 1,2, ENGR 15 \& 16). Students in the ME or EE programs must complete two years before relocating to the Pittsburgh campus. Bioengineering requires a 3.50 GPA . Students wishing to major in Industrial will need a 3.0 GPA or higher. Electrical and Computer Engineering students may consider completing the sophomore year at Bradford and apply to transfer to the University of Pittsburgh at Johnstown.
(Please note that these GPA requirements are FOR CONSIDERATION ONLY. Subject to space availability in the program of choice.

## First Year

36 credits

- ENGR 0015 - INTRODUCTION TO ENGINEERING ANALYSIS
- ENGR 0016-INTRODUCTION TO ENGINEERING COMPUTING
- ENGR 0081 - FRESHMAN ENGINEERING SEMINAR 1
- ENGR 0082 - FIRST-YEAR ENGINEERING SEMINAR 2
- CHEM 0101 - GENERAL CHEMISTRY 1
- CHEM 0102 - GENERAL CHEMISTRY 2
- MATH 0140 - CALCULUS 1
- MATH 0150 - CALCULUS 2
- PHYS 0201 - FOUNDATIONS OF PHYSICS 1
- PHYS 0202 - FOUNDATIONS OF PHYSICS 2
- Humanities or social science elective course - 6 credits


## Second Year

The second year of study initiates course work in a specific engineering major. Following are the outlines of courses for:

## Civil Engineering

31 credits

- CE 0109 - COMPUTER METH IN CIVIL ENGRG 1
- ENGR 0022 - MATERIALS STRUCTURE AND PROPERTIES
- ENGR 0131 - STATICS FOR CIVIL AND ENVIRONMENTAL ENGINEERS
- ENGR 0141 - MECHANICS OF MATERIALS CIVIL AND ENVIRONMENTAL ENGINEERS
- ENGR 0085 - ENGINEERING SEMINAR
- ECON 0102 - INTRODUCTION TO MICROECONOMICS
- MATH 0201 - CALCULUS 3
- MATH 0202 - ORDINARY DIFFERENTIAL EQUATIONS
- MATH 0206 - LINEAR ALGEBRA
- Humanities or social science elective courses - 6 credits


## Electrical Engineering

34 credits

- ECE 0031 - LINEAR CIRCUITS AND SYSTEMS 1
- ECE 0132 - DIGITAL LOGIC
- ECE 0142 - COMPUTER ORGANIZATION
- ECE 0257 - ANALYSIS AND DESIGN OF ELECTRONIC CIRCUITS
- ENGR 0085 - ENGINEERING SEMINAR
- MATH 0201 - CALCULUS 3
- MATH 0202 - ORDINARY DIFFERENTIAL EQUATIONS
- MATH 0206 - LINEAR ALGEBRA
- Humanities or social science elective courses - 9 credits


## Computer Engineering

## 33 credits

- CIST 0150 - FUNDAMENTALS OF PROGRAMMING
- ECE 0031 - LINEAR CIRCUITS AND SYSTEMS 1
- ECE 0132 - DIGITAL LOGIC
- ECE 0142 - COMPUTER ORGANIZATION
- ECE 0257 - ANALYSIS AND DESIGN OF ELECTRONIC CIRCUITS
- ENGR 0085 - ENGINEERING SEMINAR
- MATH 0202 - ORDINARY DIFFERENTIAL EQUATIONS
- MATH 0206 - LINEAR ALGEBRA
- Humanities or social science elective courses - 9 credits


## Mechanical Engineering

34 credits

- ME 0024 - INTRODUCTION TO MECHANICAL ENGINEERING DESIGN
- MEMS 0051 - INTRODUCTION TO THERMODYNAMICS
- ECE 0031 - LINEAR CIRCUITS AND SYSTEMS 1
- ENGR 0022 - MATERIALS STRUCTURE AND PROPERTIES
- ENGR 0135 - STATICS \& MECHC OF MATERIALS 1
- ENGR 0145 - STATICS \& MECHC OF MATERIALS 2
- ENGR 0085 - ENGINEERING SEMINAR
- MATH 0201 - CALCULUS 3
- MATH 0202 - ORDINARY DIFFERENTIAL EQUATIONS
- MATH 0206 - LINEAR ALGEBRA
- Humanities or social science elective course - 6 credits


## Note

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an act $\mathbf{3 3 / 3 4}$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Environmental Science, BS

Contact: Dr. Ovidiu Frantescu

The Environmental Science Program at Pitt-Bradford intends to enhance a state-wide service of UPB by training qualified environmental scientists. Our graduates will possess the knowledge, skills, and experience within geology, biology, and basic sciences to enter careers in leadership roles or graduate studies in the diverse and growing field of environmental conservation and remediation. The students will have a realistic outlook of society's needs to preserve and protect the environment, being balanced with the continued need for natural resources.

## GENERAL EDUCATION REQUIREMENTS

## COMPETENCIES

- FS 0102 - FIRST YEAR SEMINAR
(if transferring in fewer than 18 credits)

Writing

- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2

Mathematics

- MATH 0110 - FUNDAMENTALS OF MATHEMATICS or Higher (see Major)


## THE HUMAN EXPERIENCE

Students are required to complete two courses designated as "Global"

## ARTS \& LETTERS

(ONE course MUST be literature; ONE course MUST be a creative, fine or performing Arts course)

- Literature (see major)
- Arts
- Literature, Arts, Language


## BEHAVIORAL, ECONOMIC, \& POLITICAL SCIENCES

(Two different categories must be represented)

HISTORY, CULTURES, \& PHILOSOPHICAL INQUIRY
(ONE course MUST be History, and ONE course must be Cultures or Philosophical Inquiry)

- HIST
- (see major)- PHIL 1445 - ENVIRONMENTAL ETHICS


## PHYSICAL, LIFE, \& COMPUTATIONAL SCIENCES

ONE course must be a Physical Science, ONE must be a Life Science and ONE must include a lab)

- (see major)
- (see major)
- (see major)
- Lab (see major)


## PHYSICAL EDUCATION

- PEDC


## REQUIRED MAJOR COURSES

- BIOL 0101 - INTRODUCTION TO CELL AND MOLECULAR BIOLOGY
- BIOL 0102 - INTRODUCTION TO BIODIVERSITY
- BIOL 1302 - MICROBIOLOGY
- CHEM 0101 - GENERAL CHEMISTRY 1
- CHEM 0102 - GENERAL CHEMISTRY 2
- CHEM 1308 - ENVIRONMENTAL CHEMISTRY
- ES 0105 - ENVIRONMENTAL GEOLOGY
- ES 0107 - ENVIRONMENTAL GEOLOGY LAB
- ES 0110 - INTRO TO ENVIRONMENTAL SCIENCE
- ES 0201 - RESEARCH METHODS FOR ENVIRONMENTAL SCIENTISTS
- GEOL 0109 - CONCEPTS IN GIS
- GEOL 0108 - PALEOBIOLOGY
- GEOL 0118 - PALEOBIOLOGY LAB
- PHIL 1445 - ENVIRONMENTAL ETHICS
- PHYS 0101 - INTRODUCTION TO PHYSICS 1
- PSY 0201 - STATISTICS
- ES 1305 - SOIL SCIENCE

Must complete one of the following three Concentrations:

## Physical

- GEOL 1452 - CAPSTONE: GEOLOGY

In addition, choose a minimum of 15 credits from the list below.

- ES 1301 - ADVANCED FIELD METHODS AND TECHNIQUES
- GEOL 0203 - PETROLOGY
- GEOL 1301 - SEDIMENTATION AND STRATIGRAPHY
- GEOL 1303 - GEOMORPHOLOGY \& ENVIRONMENTAL SYSTEM
- GEOL 1307-HYDROGEOLOGY
- GEOL 1310 - STRUCTURAL GEOLOGY
- GEOL 1320 - ADVANCED GIS
- PET 0207 - BLACK SHALE OF THE APPALACHIAN BASIN


## Biological

- BIOL 0217 - PRINCIPLES OF ECOLOGY AND EVOLUTION
- BIOL 1451 - CAPSTONE: BIOLOGY

In addition, choose a minimum of 11 credits from the list below.

- BIOL 0108 - PLANTS \& PEOPLE: INTRO ETHNOBTNY
- BIOL 1308 - FIELD BOTANY
- BIOL 1311 - ENTOMOLOGY
- BIOL 1312 - GLOBAL ECOLOGY
- BIOL 1313 - AQUATIC BIOMONITORING
- BIOL 1405 - POPULATION AND CONSERVATION BIOL
- BIOL 1430 - ECOLOGY
- ES 1301-ADVANCED FIELD METHODS AND TECHNIQUES


## Geo-Biology

- GEOL 1452 - CAPSTONE: GEOLOGY

OR

- BIOL 1451 - CAPSTONE: BIOLOGY

Must complete a minimum of 15 credits by choosing at least two courses from the Physical Concentration list and two courses from the Biological Concentration list. BIOL 0217 - PRINCIPLES OF ECOLOGY AND EVOLUTION is a required prerequisite for certain BIOL upper level classes. At least two courses must be upper level.

Geology:

- ES 1301 - ADVANCED FIELD METHODS AND TECHNIQUES
- GEOL 0203 - PETROLOGY
- GEOL 1301 - SEDIMENTATION AND STRATIGRAPHY
- GEOL 1303 - GEOMORPHOLOGY \& ENVIRONMENTAL SYSTEM
- GEOL 1307 - HYDROGEOLOGY
- GEOL 1310 - STRUCTURAL GEOLOGY
- GEOL 1320 - ADVANCED GIS
- PET 0207 - BLACK SHALE OF THE APPALACHIAN BASIN

Biology:

- BIOL 0108 - PLANTS \& PEOPLE: INTRO ETHNOBTNY
- BIOL 0118 - ECOLOGY AND ENVIRONMENTAL BIOLOGY
- BIOL 1308 - FIELD BOTANY
- BIOL 1311 - ENTOMOLOGY
- BIOL 1312 - GLOBAL ECOLOGY
- BIOL 1313 - AQUATIC BIOMONITORING
- BIOL 1405 - POPULATION AND CONSERVATION BIOL
- BIOL 1430 - ECOLOGY
- ES 1301 - ADVANCED FIELD METHODS AND TECHNIQUES


## Physical Concentration (Suggested 4-year plan)

First year, 1st term

- ENG 0101 - ENGLISH COMPOSITION 1
- FS 0104 - FIRST YEAR TRANSITION SEMINAR
- MATH 0110 - FUNDAMENTALS OF MATHEMATICS
- ES 0110 - INTRO TO ENVIRONMENTAL SCIENCE
- BIOL 0101 - INTRODUCTION TO CELL AND MOLECULAR BIOLOGY

Total Credits Per Term: 16

First year, 2nd term

- ENG 0102 - ENGLISH COMPOSITION 2
- ES 0105 - ENVIRONMENTAL GEOLOGY
- ES 0107 - ENVIRONMENTAL GEOLOGY LAB
- BIOL 0102 - INTRODUCTION TO BIODIVERSITY
- CHEM 0101 - GENERAL CHEMISTRY 1

Total Credits Per Term: 15

Total Credits Per Academic Year: 31

Second year, 1st term

- ES 0201 - RESEARCH METHODS FOR ENVIRONMENTAL SCIENTISTS
- GE Arts and Letters \#1 (3 credits)
- PHYS 0101 - INTRODUCTION TO PHYSICS 1
- CHEM 0102 - GENERAL CHEMISTRY 2
- PEDC
- GEOL 0109 - CONCEPTS IN GIS

Total Credits Per Term: 18

Second year, 2nd term

- CHEM 1308 - ENVIRONMENTAL CHEMISTRY
- GEOL 0108 - PALEOBIOLOGY
- GEOL 0118 - PALEOBIOLOGY LAB
- GE Behavior, Economic and Political \#1 (3 credits)
- Elective (3 credits)

Total Credits Per Term: 14

Total Credits Per Academic Year: 32

Third year, 1st term

- BIOL 1302 - MICROBIOLOGY
- GEOL Concentration elective \#1 (3-4 credits)
- PSY 0201 - STATISTICS
- GE History, Cultures and Philosophical \#1 (3 credits)

Total Credits Per Term: 14-15

Third year, 2nd term

- ES 1305 - SOIL SCIENCE
- GEOL Concentration elective \#2 (3-4 credits)
- Capstone (project design) (2 credits)
- GE Global \#1 (3 credits)
- PHIL 1445 - ENVIRONMENTAL ETHICS

Total Credits Per Term: 15-16
Total Credits Per Academic Year: 39-31

Fourth year, 1st term

- Capstone (project finalization) (2 credits)
- GEOL Concentration elective \#3 (3-4 credits)
- GE Arts and Letters \#2 (3 credits)
- GE Behavior, Economic and Political \#2 (3 credits)
- GE Global \#2 (3 credits)

Total Credits Per Term: 14-15

Fourth year, 2nd term

- GEOL Concentration elective \#4 (3-4 credits)
- GE Arts and Letters \#3 (3 credits)
- GE Behavior, Economic and Political \#3 (3 credits)
- GE History, Cultures and Philosophical \#1 (3 credits)
- Elective \#2 (3 credits)

Total Credits Per Term: 15-16
Total Credits Per Academic Year: 29-31

Total Credits Required for Degree: 121-125

## Biological Concentration (Suggested 4-year plan)

First year, 1st term

- ENG 0101 - ENGLISH COMPOSITION 1
- MATH 0110 - FUNDAMENTALS OF MATHEMATICS
- ES 0110 - INTRO TO ENVIRONMENTAL SCIENCE
- FS 0102 - FIRST YEAR SEMINAR
- BIOL 0101 - INTRODUCTION TO CELL AND MOLECULAR BIOLOGY

Total Credits Per Term: 16
First year, 2nd term

- ENG 0102 - ENGLISH COMPOSITION 2
- ES 0105 - ENVIRONMENTAL GEOLOGY
- ES 0107 - ENVIRONMENTAL GEOLOGY LAB
- BIOL 0102 - INTRODUCTION TO BIODIVERSITY
- CHEM 0101 - GENERAL CHEMISTRY 1

Total Credits Per Term: 15
Total Credits Per Academic Year: 31

Second year, 1st term

- ES 0201 - RESEARCH METHODS FOR ENVIRONMENTAL SCIENTISTS
- GE Arts and Letters \#1 (3 credits)
- PHYS 0101 - INTRODUCTION TO PHYSICS 1
- CHEM 0102 - GENERAL CHEMISTRY 2
- PEDC (1 credit)

Total Credits Per Term: 15

Second year, 2nd term

- GEOL 0109 - CONCEPTS IN GIS
- CHEM 1308 - ENVIRONMENTAL CHEMISTRY
- GEOL 0108 - PALEOBIOLOGY
- GEOL 0118 - PALEOBIOLOGY LAB
- GE Behavior, Economic and Political \#1 (3 credits)
- GE Behavior, Economic and Political \#1 (3 credits)
- Elective \#1 (3 credits)

Total Credits Per Term: 17

Total Credits Per Academic Year: 32

Third year, 1st term

- BIOL 1302 - MICROBIOLOGY
- BIOL Concentration elective \#1 (3-4 credits)
- PSY 0201 - STATISTICS
- GE History, Cultures and Philosophical \#1 (3 credits)

Total Credits Per Term: 14-15

Third year, 2nd term

- ES 1305 - SOIL SCIENCE
- BIOL Concentration elective \#2 (3-4 credits)
- Capstone (project design) (2 credits)
- GE Global \#1 (3 credits)
- PHIL 1445-ENVIRONMENTAL ETHICS


## Total Credits Per Term: 15-16

Total Credits Per Academic Year: 29-31

## Fourth year, 1st term

- Capstone (project finalization) (2 credits)
- BIOL Concentration elective \#3 (3-4 credits)
- GE Arts and Letters \#2 (3 credits)
- GE Behavior, Economic and Political \#2 (3 credits)
- GE Global \#2 (3 credits)

Total Credits Per Term: 14-15

Fourth year, 2nd term

- BIOL Concentration elective \#4 (3-4 credits)
- GE Arts and Letters \#3 (3 credits)
- GE Behavior, Economic and Political \#3 (3 credits)
- GE History, Cultures and Philosophical \#1 (3 credits)
- Elective \#2 (3 credits)

Total Credits Per Term: 15-16

Total Credits Per Academic Year: 29-31

Total Credits Required for Degree: 121-125

* For the Biological concentration, there are three elective summer courses available: BIOL 1313-AQUATIC BIOMONITORING; BIOSC 1390 Field Techniques in Ecology; and BIOSC 1400 - Disease Ecology


## Geo-Biology Concentration (Suggested 4-year plan)

First year, 1st term

- ENG 0101 - ENGLISH COMPOSITION 1
- MATH 0110 - FUNDAMENTALS OF MATHEMATICS
- ES 0110 - INTRO TO ENVIRONMENTAL SCIENCE
- FS 0102 - FIRST YEAR SEMINAR
- BIOL 0101 - INTRODUCTION TO CELL AND MOLECULAR BIOLOGY

Total Credits Per Term: 16

First year, 2nd term

- ENG 0102 - ENGLISH COMPOSITION 2
- ES 0105 - ENVIRONMENTAL GEOLOGY
- ES 0107 - ENVIRONMENTAL GEOLOGY LAB
- BIOL 0102 - INTRODUCTION TO BIODIVERSITY
- CHEM 0101 - GENERAL CHEMISTRY 1

Total Credits Per Term: 15

Second year, 1st term

- ES 0201 - RESEARCH METHODS FOR ENVIRONMENTAL SCIENTISTS
- GE Arts and Letters \#1 (3 credits)
- PHYS 0101 - INTRODUCTION TO PHYSICS 1
- CHEM 0102 - GENERAL CHEMISTRY 2
- PEDC (1 credit)

Total Credits Per Term: 15

Second year, 2nd term

- GEOL 0109 - CONCEPTS IN GIS
- CHEM 1308 - ENVIRONMENTAL CHEMISTRY
- GEOL 0108 - PALEOBIOLOGY
- GEOL 0118 - PALEOBIOLOGY LAB
- GE Behavior, Economic and Political \#1 (3 credits)
- Elective \#1 (3 credits)

Total Credits Per Term: 17

Total Credits Per Academic Year: 32

Third year, 1st term

- BIOL 1302 - MICROBIOLOGY
- GEOL or BIOL Concentration elective \#1 (3-4 credits)
- PSY 0201 - STATISTICS
- GE History, Cultures and Philosophical \#1 (3 credits)

Total Credits Per Term: 14-15

Third year, 2nd term

- ES 1305 - SOIL SCIENCE
- GEOL or BIOL Concentration elective \#2 (3-4 credits)
- Capstone (project design) (2 credits)
- GE Global \#1 (3 credits)
- PHIL 1445 - ENVIRONMENTAL ETHICS

Total Credits Per Term: 15-16

Fourth year, 1st term

- Capstone (project finalization) (2 credits)
- GEOL or BIOL Concentration elective \#3 (3-4 credits)
- GE Arts and Letters \#2 (3 credits)
- GE Behavior, Economic and Political \#2 (3 credits)
- GE Global \#2 (3 credits)


## Total Credits Per Term: 14-15

Fourth year, 2nd term

- GEOL or BIOL Concentration elective \#4 (3-4 credits)
- GE Arts and Letters \#3 (3 credits)
- GE Behavior, Economic and Political \#3 (3 credits)
- GE History, Cultures and Philosophical \#1 (3 credits)
- Free Elective \#2 (3 credits)

Total Credits Per Term: 15-16

Total Credits Per Academic Year: 29-31

Total Credits Required for Degree: 121-125

* For the Biology electives, there are three summer courses available: BIOL 1313 - AQUATIC BIOMONITORING; BIOSC 1390 - Field Techniques in Ecology; and BIOSC 1400 - Disease Ecology


## Forensic Science, BS

Contact: Dr. Robin Choo

## Core Courses

- ADMJ 0101 - INTRO TO CRIMINAL JUSTICE
- ADMJ 0230 - INTRO TO FORENSIC SCIENCE OR FORSCI 0201
- ADMJ 1330 - CRIMINAL FORENSICS 1

AND

- ADMJ 1331 - CRIMINAL FORENSIC 1 LAB

OR FORSCI 1301

- ADMJ 1325 - CRIMINAL EVIDENCE/INVESTIGATION
- ADMJ 1430 - CRIMINAL FORENSICS 2

AND

- ADMJ 1431 - CRIMINAL FORENSICS 2 LAB

OR FORSCI 1401

- BIOL 0101 - INTRODUCTION TO CELL AND MOLECULAR BIOLOGY
- BIOL 0203 - GENETICS
- CHEM 0101 - GENERAL CHEMISTRY 1
- CHEM 0102 - GENERAL CHEMISTRY 2
- CHEM 0206 - ORGANIC CHEMISTRY 1
- CHEM 0207 - ORGANIC CHEMISTRY 1 LAB
- CHEM 0208 - ORGANIC CHEMISTRY 2
- CHEM 0209 - ORGANIC CHEMISTRY 2 LAB
- CHEM 1306 - BIOCHEMISTRY
- PHYS 0101 - INTRODUCTION TO PHYSICS 1 OR
- PHYS 0201 - FOUNDATIONS OF PHYSICS 1

AND

- PHYS 0203 - FOUNDATIONS OF PHYSICS 1 LAB
- PHYS 0102 - INTRODUCTION TO PHYSICS 2 OR
- PHYS 0202 - FOUNDATIONS OF PHYSICS 2

AND

- PHYS 0204 - FOUNDATIONS OF PHYSICS 2 LAB
- MATH 0140 - CALCULUS 1

Total Core: 56-58 Credits

A Concentration in either Biology or Chemistry is required

## Biology Concentration:

- BIOL 0212 - HUMAN ANATOMY AND PHYSIOLOGY 1
- BIOL 0213 - HUMAN ANATOMY AND PHYSIOLOGY 2
- BIOL 0222 - HUMAN ANATOMY AND PHYSIOLOGY LAB 1
- BIOL 0223 - HUMAN ANATOMY AND PHYSIOLOGY LAB 2
- BIOL 1320 - CELL BIOLOGY or
- BIOL 1402 - MOLECULAR BIOLOGY
- BIOL 1451 - CAPSTONE: BIOLOGY
- Upper Level Biology Elective - 3 cr.

Total Biology: 19 Credits
Chemistry Concentration:

- CHEM 0201 - INTRODUCTION TO ANALYTICAL CHEMISTRY
- CHEM 1304 - ORGANIC ANALYSIS
- CHEM 1305 - ANALYTICAL INSTRUMENTATION
- CHEM 1451 - CAPSTONE: CHEMISTRY
- Upper Level Chemistry Elective

Total Chemistry: 18 Credits

## Suggested Course of Study

Forensic Science Major, Biology Concentration, Suggested Course of Study

## First Year

- CHEM 0101 - GENERAL CHEMISTRY 1
- ADMJ 0101 - INTRO TO CRIMINAL JUSTICE
- ENG 0101 - ENGLISH COMPOSITION 1
- MATH 0140 - CALCULUS 1
- CHEM 0102 - GENERAL CHEMISTRY 2
- ENG 0102 - ENGLISH COMPOSITION 2
- BIOL 0101 - INTRODUCTION TO CELL AND MOLECULAR BIOLOGY
- ADMJ 0230 - INTRO TO FORENSIC SCIENCE or
- CHEM 0240 - INTRO TO EVIDENCE ANALYSIS
- GE Elective
- FS 0104 - FIRST YEAR TRANSITION SEMINAR

Credits: 34

## Second Year

- CHEM 0206 - ORGANIC CHEMISTRY 1
- CHEM 0207 - ORGANIC CHEMISTRY 1 LAB
- PHYS 0101 - INTRODUCTION TO PHYSICS 1
- BIOL 0212 - HUMAN ANATOMY AND PHYSIOLOGY 1
- BIOL 0222 - HUMAN ANATOMY AND PHYSIOLOGY LAB 1
- GE Elective
- GE Phys. Ed.
- CHEM 0208 - ORGANIC CHEMISTRY 2
- CHEM 0209 - ORGANIC CHEMISTRY 2 LAB
- PHYS 0102 - INTRODUCTION TO PHYSICS 2
- BIOL 0213 - HUMAN ANATOMY AND PHYSIOLOGY 2
- BIOL 0223 - HUMAN ANATOMY AND PHYSIOLOGY LAB 2
- BIOL 0203 - GENETICS

Credits: 32

Third Year

- CHEM 1306-BIOCHEMISTRY
- ADMJ 1330 - CRIMINAL FORENSICS 1
- ADMJ 1331 - CRIMINAL FORENSIC 1 LAB
- UL BIOL Elective
- GE Elective
- BIOL 1320 - CELL BIOLOGY
- BIOL 1402 - MOLECULAR BIOLOGY
- ADMJ 1430 - CRIMINAL FORENSICS 2
- ADMJ 1431 - CRIMINAL FORENSICS 2 LAB

Credits: 28-32

Fourth Year

- ADMJ 1325 - CRIMINAL EVIDENCE/INVESTIGATION
- BIOL 1451 - CAPSTONE: BIOLOGY
- GE Electives
- BIOL 1451 - CAPSTONE: BIOLOGY (second part)
- UL BIOL Elective
- GE Elective

Credits: 28-30

## Forensic Science Major, Chemistry Concentration, Suggested Course of Study

## First Year

- CHEM 0101 - GENERAL CHEMISTRY 1
- ADMJ 0101 - INTRO TO CRIMINAL JUSTICE
- ENG 0101 - ENGLISH COMPOSITION 1
- MATH 0140 - CALCULUS 1
- FS 0102 - FIRST YEAR SEMINAR
- CHEM 0102 - GENERAL CHEMISTRY 2
- ENG 0102 - ENGLISH COMPOSITION 2
- BIOL 0101 - INTRODUCTION TO CELL AND MOLECULAR BIOLOGY
- ADMJ 0230 - INTRO TO FORENSIC SCIENCE
- GE Elective

Credits: 34

## Second Year

- CHEM 0206 - ORGANIC CHEMISTRY 1
- CHEM 0207 - ORGANIC CHEMISTRY 1 LAB
- PHYS 0101 - INTRODUCTION TO PHYSICS 1
- CHEM 0201 - INTRODUCTION TO ANALYTICAL CHEMISTRY
- GE Elective
- CHEM 0208 - ORGANIC CHEMISTRY 2
- CHEM 0209 - ORGANIC CHEMISTRY 2 LAB
- PHYS 0102 - INTRODUCTION TO PHYSICS 2
- BIOL 0203 - GENETICS
- GE Elective

Credits: 30

## Third Year

- CHEM 1306 - BIOCHEMISTRY
- ADMJ 1330 - CRIMINAL FORENSICS 1
- ADMJ 1331 - CRIMINAL FORENSIC 1 LAB
- GE Phys. Ed.
- GE Electives
- CHEM 1305 - ANALYTICAL INSTRUMENTATION
- ADMJ 1430 - CRIMINAL FORENSICS 2
- ADMJ 1431 - CRIMINAL FORENSICS 2 LAB
- CHEM 1304 - ORGANIC ANALYSIS
- UL CHEM Elective

Fourth Year

- ADMJ 1325 - CRIMINAL EVIDENCE/INVESTIGATION
- BIOL 1451 - CAPSTONE: BIOLOGY
- UL CHEM Elective
- GE Electives
- CHEM 1451 - CAPSTONE: CHEMISTRY
- UL CHEM Elective
- GE Elective

Credits: 28-31

## TOTAL credits $=121-123$ with Biology Concentration

## TOTAL credits $=120-122$ with Chemistry Concentration

## Mechanical Engineering Technology, BS

## Contact: Dr. Matt Kropf

The program is composed of core math, science, and engineering technology courses, chosen to provide the breadth and depth necessary to address multidisciplinary problems in the engineering industry.

This core is supplemented with appropriate mechanical engineering technology courses. Finally, students will be encouraged to specialize through the selection of elective courses. The learning experience culminates in a required practicum in the form of a Senior Project Proposal and associated Senior Design Project.

## General Education Courses (19 credits)

19 credits Human Experience General Education Electives

- 6 cr- Arts and Letters: Must include at least one course in literature, and at least one course in the creative, fine, and performing arts
- 6 cr- Behavioral, Economic, and Political Science: Courses must be selected from at least two different categories (the categories are behavioral science, economics, and political science)
- 6 cr- History, Culture, and Philosophical Inquiry: At least one history course is required and at least one course from either of the other two categories (Culture or Philosophical Inquiry)
- 1 cr - Physical Education

Math Courses (16 credits)

- MATH 0132 - PRECALCULUS
- MATH 0142 - TECHNICAL CALCULUS I
- MATH 0143 - TECHNICAL CALCULUS II
- MATH 0144 - TECHNICAL DIFFERENTIAL EQUATIONS


## Science Courses (12 credits)

- CHEM 0101 - GENERAL CHEMISTRY 1
- PHYS 0101 - INTRODUCTION TO PHYSICS 1


## Communication Skills Courses (3 credits)

- WRITNG 1305 - TECHNICAL WRITING


## Engineering Courses (8 credits)

- ENGR 0015 - INTRODUCTION TO ENGINEERING ANALYSIS
- ENGR 0016 - INTRODUCTION TO ENGINEERING COMPUTING
- ENGR 0081 - FRESHMAN ENGINEERING SEMINAR 1
- ENGR 0082 - FIRST-YEAR ENGINEERING SEMINAR 2


## Engineering Technology Courses (17 credits)

- ET 0101 - MACHINE SHOP
- ET 0115 - MECHANICS-STATICS
- ET 0201 - MECHANICS-DYNAMICS
- ET 0202 - STRENGTH OF MATERIALS
- ET 0203 - STRENGTH OF MATERIALS LAB
- ET 0205 - ENGINEERING DESIGN
- ET 1300 - ENGINEERING ECONOMICS


## Electrical Engineering Technology Courses (4 credits)

- EET 0210 - CIRCUITS 1 BASIC ELECTRICAL TECH
- EET 0211 - BASIC ELECTRICAL TECH LAB


## Mechanical Engineering Technology Courses (45 credits)

- MET 1301 - FLUID MECHANICS
- MET 1302 - FLUID MECHANICS LAB
- MET 1303-THERMODYNAMICS
- MET 1304 - MATERIALS
- MET 1305 - MATERIALS LAB
- MET 1306 - CADD/CAE COMPUTER-AIDED DRAFTING \& DESIGN COMPUTER-AIDED ENGINEERING
- MET 1308 - ENGINEERING MEASUREMENTS I
- MET 1309 - ENGINEERING MEASUREMENTS II
- MET 1400 - MANUFACTURING PROCESSES
- MET 1401 - MANUFACTURING LAB
- MET 1402 - HEAT TRANSFER
- MET 1403 - APPLIED THERMODYNAMICS
- MET 1404 - MACHINE DESIGN
- MET 1405 - FINITE ELEMENT METHOD
- MET 1406 - SENIOR PROJECT PROPOSAL
- MET 1407 - SENIOR DESIGN PROJECT
- MET Elective
- MET Elective

128 credits

## Suggested Course of Study

First Year

- MATH 0132 - PRECALCULUS
- ENG 0101 - ENGLISH COMPOSITION 1
- ENGR 0015 - INTRODUCTION TO ENGINEERING ANALYSIS
- ENGR 0081 - FRESHMAN ENGINEERING SEMINAR 1
- CHEM 0101 - GENERAL CHEMISTRY 1
- ET 0101 - MACHINE SHOP
- MATH 0142 - TECHNICAL CALCULUS I
- ENG 0102 - ENGLISH COMPOSITION 2
- PHYS 0101 - INTRODUCTION TO PHYSICS 1
- ENGR 0016 - INTRODUCTION TO ENGINEERING COMPUTING
- ENGR 0082 - FIRST-YEAR ENGINEERING SEMINAR 2
- PEDC credit

Credits: 30

## Second Year

- MATH 0143 - TECHNICAL CALCULUS II
- PHYS 0102 - INTRODUCTION TO PHYSICS 2
- ET 0115 - MECHANICS-STATICS
- EET 0210 - CIRCUITS 1 BASIC ELECTRICAL TECH
- EET 0211 - BASIC ELECTRICAL TECH LAB
- MATH 0144 - TECHNICAL DIFFERENTIAL EQUATIONS
- ET 0201 - MECHANICS-DYNAMICS
- ET 0202 - STRENGTH OF MATERIALS
- ET 0203 - STRENGTH OF MATERIALS LAB
- ET 0205 - ENGINEERING DESIGN
- GE course

Credits: 32

## Third Year

- MET 1301 - FLUID MECHANICS
- MET 1302 - FLUID MECHANICS LAB
- MET 1303 - THERMODYNAMICS
- MET 1304 - MATERIALS
- MET 1305 - MATERIALS LAB
- MET 1306 - CADD/CAE COMPUTER-AIDED DRAFTING \& DESIGN COMPUTER-AIDED ENGINEERING
- GE course
- MET 1308 - ENGINEERING MEASUREMENTS I
- MET 1400 - MANUFACTURING PROCESSES
- MET 1401 - MANUFACTURING LAB
- MET 1403 - APPLIED THERMODYNAMICS
- ET 1300 - ENGINEERING ECONOMICS
- GE course

Credits: 33

## Fourth Year

- MET 1402 - HEAT TRANSFER
- MET 1309 - ENGINEERING MEASUREMENTS II
- MET 1404 - MACHINE DESIGN
- WRITNG 1305 - TECHNICAL WRITING
- MET 1406 - SENIOR PROJECT PROPOSAL
- MET elective
- GE course
- MET 1405 - FINITE ELEMENT METHOD
- MET 1407 - SENIOR DESIGN PROJECT
- MET elective
- GE course
- GE course

Credits: 33

## Mechanical Engineering, BS

## Engineering

Contact: Dr. Matt Kropf

## Degree Requirements

The Bachelor of Science degree in Mechanical Engineering Technology and Energy Engineering Technology may be completed at the Bradford campus. All other B.S. degrees in Engineering would be completed by starting at the Bradford campus, successfully completing the prerequisites to the junior year, and being accepted for Relocation to the Swanson School of Engineering in Pittsburgh to finish the degree.

An entering freshman must meet one of the following requirements to be admitted directly to the full Engineering curriculum at Pitt-Bradford.

- SAT Math score of 500 or better, or
- SAT Math score of 450 or better and high school GPA of 3.25 or better.

For those students who want to major in Engineering but do not meet either of the above requirements there is placement testing available and the ALEKS Math Bridge program. The ALEKS program is an opportunity for qualifying students to refresh their skills over the summer via a guided math learning platform. Upon completion of the ALEKS modules, you may then retake the Accuplacer math placement exam and potentially change your math placement based on those results.

## Fall

- FS 0102 - FIRST YEAR SEMINAR
- ENG 0101 - ENGLISH COMPOSITION 1
- MATH 0132 - PRECALCULUS
- CHEM 0101 - GENERAL CHEMISTRY 1 (or CHEM 0089)

Credits: 14

## Spring

- ENG 0102 - ENGLISH COMPOSITION 2
- MATH 0140 - CALCULUS 1
- CHEM 0101 - GENERAL CHEMISTRY 1 or
- CHEM 0102 - GENERAL CHEMISTRY 2
- A humanities elective
- A social sciences elective

Credits: 17

## Note:

Progression to the engineering program is dependent upon successful completion of above coursework with a minimum GPA of 3.00.
Students must complete a minimum of 34 credits at Pitt-Bradford with a cumulative grade point average of 3.00 or higher before they are permitted to apply for relocation to the baccalaureate degree program at the Swanson School of Engineering in Pittsburgh. The first year of study is common to all engineering majors. Students pursuing bioengineering must relocate to the Swanson School of Engineering after completing 34 credits with a GPA of 3.50 or better. Students pursuing industrial engineering must relocate to the Swanson School of Engineering after completing 36 credits with a GPA of 3.00 or better. Mechanical and Elecrical Engineering students must complete 2 years with a GPA of 3.00 or higher.

Students who have a verbal SAT score below 500 are required to complete ENG 0101 , English Composition I and may be placed in ENG 0100 if their score is lower than 440 . Students who have a math SAT score below 500 are required to take the following courses:

## First Year

- ENGR 0015 - INTRODUCTION TO ENGINEERING ANALYSIS
- ENGR 0016 - INTRODUCTION TO ENGINEERING COMPUTING
- ENGR 0081 - FRESHMAN ENGINEERING SEMINAR 1
- ENGR 0082 - FIRST-YEAR ENGINEERING SEMINAR 2
- CHEM 0101 - GENERAL CHEMISTRY 1
- CHEM 0102 - GENERAL CHEMISTRY 2
- MATH 0140 - CALCULUS 1
- MATH 0150 - CALCULUS 2
- PHYS 0201 - FOUNDATIONS OF PHYSICS 1
- PHYS 0202 - FOUNDATIONS OF PHYSICS 2
- Humanities or social science elective course - 3 Credits if able to fit into schedule
- ENG 0102 - ENGLISH COMPOSITION 2
- ENG 0101 - ENGLISH COMPOSITION 1


## Credits: 36

## The second year of study

The second year of study initiates course work in a specific engineering major. Following are the outlines of courses for:

## Second Year

- ME 0024 - INTRODUCTION TO MECHANICAL ENGINEERING DESIGN
- MEMS 0051 - INTRODUCTION TO THERMODYNAMICS
- ECE 0031 - LINEAR CIRCUITS AND SYSTEMS 1
- ENGR 0022 - MATERIALS STRUCTURE AND PROPERTIES
- ENGR 0135 - STATICS \& MECHC OF MATERIALS 1
- ENGR 0145 - STATICS \& MECHC OF MATERIALS 2
- ENGR 0085 - ENGINEERING SEMINAR
- MATH 0201 - CALCULUS 3
- MATH 0202 - ORDINARY DIFFERENTIAL EQUATIONS
- MATH 0206 - LINEAR ALGEBRA
- Humanities or social science elective course - 9 Credits

Credits: 37

## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Petroleum Technology, AS

## Contact: Dr. Ovidiu Frantescu

We currently are not accepting new students into this program beginning Fall 2022.
The petroleum technology program will train you as a qualified petroleum technologist in the state of Pennsylvania and beyond whether you're already working in the industry or hope to be. Our newly modified program conforms to national standards and to the personnel needs of the local, regional, and nationwide petroleum industry.

## Degree Requirements

- PET 0101 - INTRODUCTION TO PETROLEUM INDUSTRY
- PET 0102 - ENVIRONMENT AND SAFETY
- PET 0103 - PETROLEUM GEOLOGY AND GEOPHYSICS
- PET 0108 - WELL CONTROL
- PET 0110 - MUD LOGGING
- PET 0201 - PETROLEUM AND NATURAL GAS CHEMISTRY
- PET 0203 - NATURAL GAS PROCESSING
- PET 0204 - WELL LOG INTERPRETATION
- PET 0206 - DRILLING AND COMPLETION
- PET 0207 - BLACK SHALE OF THE APPALACHIAN BASIN
- PET 0208 - ENHANCED HYDROCARBON RECOVERY
- PET 0209 - INTRODUCTION TO SUPERVISORY CONTROL AND DATA ACQUISITION
- GEOL 0109 - CONCEPTS IN GIS


## Other Required Courses

- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- MATH 0110 - FUNDAMENTALS OF MATHEMATICS or
- MATH 0098 - COLLEGE ALGEBRA 2
- CHEM 0101 - GENERAL CHEMISTRY 1
- GEOL 0101 - PHYSICAL GEOLOGY
- PHYS 0103 - CONCEPTS OF MODERN PHYSICS
- PHYS 0203 - FOUNDATIONS OF PHYSICS 1 LAB
- The Human Experience - 6 Credits

Choose two courses from the following three areas:

Arts \& Letters; Behavioral, Economic and Political Sciences; History, Cultures and Philosophical Inquiry

## Total Credits to Graduate: 66 Credits

## Suggested Course of Study

First Year, 1st Term

- ENG 0101 - ENGLISH COMPOSITION 1
- PET 0101 - INTRODUCTION TO PETROLEUM INDUSTRY
- PET 0102 - ENVIRONMENT AND SAFETY
- MATH 0110 - FUNDAMENTALS OF MATHEMATICS
or
- MATH 0098 - COLLEGE ALGEBRA 2
- GEOL 0101 - PHYSICAL GEOLOGY

Total Credits Per Term: 16

## First Year, 2nd Term

- ENG 0102 - ENGLISH COMPOSITION 2
- PET 0103 - PETROLEUM GEOLOGY AND GEOPHYSICS
- PHYS 0103 - CONCEPTS OF MODERN PHYSICS
- CHEM 0101 - GENERAL CHEMISTRY 1
- PET 0108 - WELL CONTROL

Total Credits Per Term: 16

Second Year, 1st Term

- PET 0206 - DRILLING AND COMPLETION
- PET 0201 - PETROLEUM AND NATURAL GAS CHEMISTRY
- PET 0204 - WELL LOG INTERPRETATION
- PET 0203 - NATURAL GAS PROCESSING
- PHYS 0204 - FOUNDATIONS OF PHYSICS 2 LAB
- GEOL 0109 - CONCEPTS IN GIS


## Total Credits Per Term: 17

## Second Year, 2nd Term

- PET 0110 - MUD LOGGING
- PET 0207 - BLACK SHALE OF THE APPALACHIAN BASIN
- PET 0208 - ENHANCED HYDROCARBON RECOVERY
- PET 0209 - INTRODUCTION TO SUPERVISORY CONTROL AND DATA ACQUISITION


## Total Credits Per Term: 18

## Total Credits Required for Degree: 66

## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act 33/34 clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Physical Sciences, BS

Contact: Dr. Hashim Yousif

The BS degree in physical sciences develops an understanding of the natural world by the integrated study of biology, chemistry, and computer science/mathematics, in addition to other course requirements. Students must select a concentration option in biology, chemistry, or geology in addition to other course requirements. Students are prepared for employment in technical phases of government and industry as well as for graduate study in the sciences

Note: This program is currently undergoing revisions to more accurately reflect industry needs. Students should consult the program director for updated requirements.

## Degree Requirements

## Course Requirements in the Major

- BIOL 0101 - INTRODUCTION TO CELL AND MOLECULAR BIOLOGY
- BIOL 0102 - INTRODUCTION TO BIODIVERSITY
- CHEM 0101 - GENERAL CHEMISTRY 1
- CHEM 0102 - GENERAL CHEMISTRY 2
- GEOL 0101 - PHYSICAL GEOLOGY
- MATH 0140 - CALCULUS 1
- MATH 0150 - CALCULUS 2
- MATH 0201 - CALCULUS 3
- PHYS 0101 - INTRODUCTION TO PHYSICS 1 and
- PHYS 0102 - INTRODUCTION TO PHYSICS 2 or
- PHYS 0201 - FOUNDATIONS OF PHYSICS 1 and
- PHYS 0202 - FOUNDATIONS OF PHYSICS 2 and
- PHYS 0203 - FOUNDATIONS OF PHYSICS 1 LAB and
- PHYS 0204 - FOUNDATIONS OF PHYSICS 2 LAB

Credits: 40-42
Students majoring in physical sciences are required to complete required courses in one of the following concentrations:

## Biology Concentration

- BIOL 0203 - GENETICS
- BIOL 1302 - MICROBIOLOGY
- BIOL 1320 - CELL BIOLOGY
- Biology upper-level electives - 8 Credits
- BIOL 1451 - CAPSTONE: BIOLOGY
- CHEM 0206 - ORGANIC CHEMISTRY 1
- CHEM 0207 - ORGANIC CHEMISTRY 1 LAB

Credits: 28

## Chemistry Concentration

- CHEM 0201 - INTRODUCTION TO ANALYTICAL CHEMISTRY
- CHEM 0206 - ORGANIC CHEMISTRY 1
- CHEM 0207 - ORGANIC CHEMISTRY 1 LAB
- CHEM 0208 - ORGANIC CHEMISTRY 2
- CHEM 0209 - ORGANIC CHEMISTRY 2 LAB
- CHEM 1301 - PHYSICAL CHEMISTRY 1
- CHEM 1302 - PHYSICAL CHEMISTRY 2
- Chemistry upper-level elective - 3-4 Credits
- CHEM 1451 - CAPSTONE: CHEMISTRY

Credits: 26-27

Total credits required for the major: 74-81

## General Education Program Requirements and Electives -Variable

(See General Education Program and General Requirements for the Bachelor's Degree under Academic Policies and Guidelines for further details.)

## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act 33/34 clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Suggested Course of Study

## Biology Concentration

## First Year

- BIOL 0101 - INTRODUCTION TO CELL AND MOLECULAR BIOLOGY
- BIOL 0102 - INTRODUCTION TO BIODIVERSITY
- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- CHEM 0101 - GENERAL CHEMISTRY 1
- CHEM 0102 - GENERAL CHEMISTRY 2
- MATH 0140 - CALCULUS 1
- MATH 0150 - CALCULUS 2

Credits: 30

Second Year

- CHEM 0206 - ORGANIC CHEMISTRY 1
- CHEM 0207 - ORGANIC CHEMISTRY 1 LAB
- BIOL 0201 - Cell Biology - 4 Credits
- GEOL 0101 - PHYSICAL GEOLOGY
- PHYS 0101 - INTRODUCTION TO PHYSICS 1 and
- PHYS 0102 - INTRODUCTION TO PHYSICS 2 or
- PHYS 0201 - FOUNDATIONS OF PHYSICS 1 and
- PHYS 0202 - FOUNDATIONS OF PHYSICS 2 and
- PHYS 0203 - FOUNDATIONS OF PHYSICS 1 LAB and
- PHYS 0204 - FOUNDATIONS OF PHYSICS 2 LAB
- MATH 0201 - CALCULUS 3

Credits: 32-34

Third Year

- BIOL 0203 - GENETICS
- BIOL 1302 - MICROBIOLOGY
- BIOL 1320 - CELL BIOLOGY
- Biology electives - 4 Credits
- General education or elective courses - 18 Credits

Credits: 30

## Fourth Year

- Biology elective - 4 Credits
- BIOL 1451 - CAPSTONE: BIOLOGY
- General education courses - 9 Credits
- General electives - 10-13 Credits

Credits: 27-30

## Chemistry Concentration

## First Year

- CHEM 0101 - GENERAL CHEMISTRY 1
- CHEM 0102 - GENERAL CHEMISTRY 2
- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- BIOL 0102 - INTRODUCTION TO BIODIVERSITY
- MATH 0140 - CALCULUS 1
- MATH 0150 - CALCULUS 2

Credits: 30

Second Year

- CHEM 0201 - INTRODUCTION TO ANALYTICAL CHEMISTRY
- CHEM 0206-ORGANIC CHEMISTRY 1
- CHEM 0207 - ORGANIC CHEMISTRY 1 LAB
- CHEM 0208 - ORGANIC CHEMISTRY 2
- CHEM 0209 - ORGANIC CHEMISTRY 2 LAB
- GEOL 0101 - PHYSICAL GEOLOGY
- PHYS 0201 - FOUNDATIONS OF PHYSICS 1
- PHYS 0202 - FOUNDATIONS OF PHYSICS 2
- PHYS 0203 - FOUNDATIONS OF PHYSICS 1 LAB
- PHYS 0204 - FOUNDATIONS OF PHYSICS 2 LAB
- MATH 0201 - CALCULUS 3

Credits: 34

Third Year

- Chemistry elective - 3-4 Credits
- General education or elective courses - 24 Credits

Credits: 31-32

Fourth Year

- CHEM 1301 - PHYSICAL CHEMISTRY 1
- CHEM 1302 - PHYSICAL CHEMISTRY 2
- General education courses - 9 Credits
- General electives - 14-16 Credits
- CHEM 1451 - CAPSTONE: CHEMISTRY

Credits: 34-36

## Minor

## Chemistry Minor

Program Contact: Dr. David Soriano
Academic Division: Physical and Computational Sciences
Program Description:

If you want to minor in chemistry, you probably have a greater-than-average interest and ability in chemistry. Our minor will give you an understanding of the laboratory work and the types of calculations done by chemists, without many of the theoretical underpinnings acquired by chemistry majors.

With a chemistry minor, you will likely be often sought in industry for many of the same positions held by chemistry majors. Our chemistry minor is often viewed as an advantage for students seeking employment in their own field.

## Minor Requirements

A minor in chemistry may be earned by completing the following requirements:

- CHEM 0101 - GENERAL CHEMISTRY 1
- CHEM 0102 - GENERAL CHEMISTRY 2
- CHEM 0201 - INTRODUCTION TO ANALYTICAL CHEMISTRY
- CHEM 0206 - ORGANIC CHEMISTRY 1
- CHEM 0207 - ORGANIC CHEMISTRY 1 LAB
- CHEM 0208 - ORGANIC CHEMISTRY 2
- CHEM 0209 - ORGANIC CHEMISTRY 2 LAB
- Chemistry upper-level course - 3-4 Credits


## Total Credits: 23-24

## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Environmental Science Minor

Program Contact: Dr. Matt Kropf
Academic Division: Physical and Computational Sciences

## Program Description:

The minor in environmental science will give you a basic understanding of how nature works and how physical, biological, and human dimensions in nature are interconnected. You will learn how the earth works, how we are affecting its life support system, and how we can reduce our environmental impact and live sustainably by not degrading our life support system.

## Minor Requirements

A minor in environmental science can be earned by completing the following requirements:

- ES 0110 - INTRO TO ENVIRONMENTAL SCIENCE
- ES 0105 - ENVIRONMENTAL GEOLOGY
- ES 0107 - ENVIRONMENTAL GEOLOGY LAB
- GEOL 0109 - CONCEPTS IN GIS


## Choose one from the following lab-based courses:

- CHEM 0106 - CHEMISTRY OF THE ENVIRONMENT and
- CHEM 0107 - CHEMISTRY OF THE ENVRN - LAB
- BIOL 0118 - ECOLOGY AND ENVIRONMENTAL BIOLOGY and
- BIOL 0119 - ECOLOGY AND ENVIRONMENTAL BIOLOGY LABORATORY
- BIOL 0217 - PRINCIPLES OF ECOLOGY AND EVOLUTION


## Elective Courses

(choose one of the following two courses):

- CHEM 1308 - ENVIRONMENTAL CHEMISTRY
- CHEM 0189 - INTRODUCTION TO BIOFUELS

Total Credits: 17-18

## Please be advised

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## Geology Minor

Program Contact: Dr. Ovidiu Frantescu
Academic Division: Physical and Computational Sciences

## Program Description:

Our geology minor is designed to give you basic scientific knowledge in earth sciences. You could benefit by majoring in education, environmental studies, and the biological sciences. It could also be valuable to you if you're interested in anthropology, journalism, business, and political science.

We will expose you to modern technology in the geological and environmental sciences so you become scientifically and technically wellinformed professionals capable of entering society's economic mainstream and playing a role in solving geological, environmental, and resource problems.

## Minor Requirements

A student may earn a minor in geology by completing the following requirements:

- GEOL 0101 - PHYSICAL GEOLOGY
- GEOL 0109 - CONCEPTS IN GIS

Three of the following courses:

- GEOL 0250 - TOPICS IN GEOLOGY
- GEOL 1320 - ADVANCED GIS
- PET 0103 - PETROLEUM GEOLOGY AND GEOPHYSICS
- PET 0207 - BLACK SHALE OF THE APPALACHIAN BASIN
- ES 0105 - ENVIRONMENTAL GEOLOGY
- ES 0106 - INTRO TO OCEANOGRAPHY


## Total Credits: 16

## Mathematics Minor

Program Contact: Dr. Marius Buliga
Academic Division: Physical and Computational Sciences

## Program Description:

Our math program is designed to prepare you for the careers in mathematical sciences, education, and other careers requiring strong mathematical skills. We also offer courses for the non-math majors that satisfy the core or general education requirements, and develop basic critical-thinking and problem-solving skills.

## Minor Requirements

A minor in mathematics may be earned by completing the following requirements:

- MATH 0140 - CALCULUS 1
- MATH 0150 - CALCULUS 2
- Three mathematics electives (courses must be 0200 level or above, and one must be upper-level) -9-12 Credits


## Total Credits: 17-20

Students seeking secondary teacher certification in mathematics should meet with the director of teacher education each semester to plan out their course of study. Please refer to the section on Education Programs for further details.

## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act 33/34 clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Mathematics Modeling Minor

Program Contact: Dr. Marius Buliga
Academic Division: Physical and Computational Sciences

## Program Description:

Our Mathematics Program is a teaching-focused undergraduate program. We currently have four full-time and one part-time faculty who teach and do research in several mathematical fields. We offer Bachelor of Science in Applied Mathematics, Bachelor of Science in

Applied Mathematics with concentration in Actuarial Science, and Bachelor of Science in Applied Mathematics with concentration in Physics, as well as Mathematics minor. Our curriculum is designed to prepare students for careers in mathematical sciences, education, and other careers requiring strong mathematical skills, while engaging students in creative projects which culminate in capstone theses. We also offer courses for the non-math majors that satisfy the core or General Education requirements, and provide interest and basic problemsolving skills. All our faculty members care about our students professionally and are genuinely student-oriented.

As part of our outreach effort to the community, we sponsor jointly with Jamestown Community College an annual math competition for local high school students. This gives students from high schools in the region a chance to interact with students with similar interest.

## Minor Requirements

A minor in math modeling may be earned by completing the following course requirements:

- MATH 0140 - CALCULUS 1
- MATH 0150 - CALCULUS 2
- MATH 1303 - MATHEMATICAL MODELING


## Math electives:

- Must include two upper-level math courses - 6-8 Credits


## Total Credits: 20-22

## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Physics Minor

Program Contact: Dr. Hashim Yousif
Academic Division: Physical and Computational Sciences

## Program Description:

If you're a science major and you're interested in exploring contemporary physics topics in depth, we encourage you to minor in physics. The physics minor will provide you with a perspective and give you valuable academic experience.

## Minor Requirements

A minor in physics may be earned by completing the following requirements:

- PHYS 0201 - FOUNDATIONS OF PHYSICS 1
- PHYS 0202 - FOUNDATIONS OF PHYSICS 2
- PHYS 0203 - FOUNDATIONS OF PHYSICS 1 LAB
- PHYS 0204 - FOUNDATIONS OF PHYSICS 2 LAB


## Choose two of the following:

Total Credits: 18

## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act 33/34 clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Transfer Program

## Pre-Nutrition

## Contact: Dr. Mary Mulcahy

The University of Pittsburgh at Bradford's Pre-Nutrition curriculum is a two-year course of study. Upon completion of the two-year curriculum, students apply to the University of Pittsburgh's School of Health and Rehabilitation Sciences (SHRS).

## Transfer Program Requirements

The two-year program at the University of Pittsburgh at Bradford must include the following courses:

- BIOL 0101 - INTRODUCTION TO CELL AND MOLECULAR BIOLOGY
- BIOL 0102 - INTRODUCTION TO BIODIVERSITY
- BIOL 1302 - MICROBIOLOGY
- BIOL 0202 - MICROBIOL FOR ALLIED HEALTH PROFESSIONALS
- CHEM 0101 - GENERAL CHEMISTRY 1
- CHEM 0102 - GENERAL CHEMISTRY 2
- CHEM 0206-ORGANIC CHEMISTRY 1
- CHEM 0207 - ORGANIC CHEMISTRY 1 LAB
- CHEM 0208 - ORGANIC CHEMISTRY 2
- CHEM 0209- ORGANIC CHEMISTRY 2 LAB
- MATH 0098 - COLLEGE ALGEBRA 2
- MATH 0133 - STATISTICS
- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- ECON 0101 - ECONOMICS IN THE MODERN WORLD
- PSY 0101 - INTRODUCTION TO PSYCHOLOGY
- SOC 0101 - INTRODUCTION TO SOCIOLOGY
- COMM 0104 - PUBLIC SPEAKING
- HPRED 0108 - NUTRITION


## Note:

**Provisions will be made for transfer students to take this course during the Fall term of the Junior year, after admission to the program.

## Other Admission Criteria Include:

- A minimum cumulative GPA of 2.5 (based on 4.0)
- A minimum prerequisite GPA of 2.5
- A minimum grade of C - in all courses designated as prerequisites

Application Deadline: March 15
Apply online: www.shrs.pitt.edu/Apply
Freshman Guarantee: Qualified freshman applicants will be offered a guaranteed admission into the Coordinated Masters in Dietetics program. Guaranteed students must maintain an overall and prerequisite GPA of 3.3 or better and meet all admission requirements. For consideration, please check code CLNDN when applying to Pitt (at regional Pitt campuses, choose corresponding codes).

## Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships, and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an Act $33 / 34$ clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

## Pre-Pharmacy

## Contact: Dr. David Soriano

The University of Pittsburgh's School of Pharmacy offers a six-year Doctor of Pharmacy (PharmD) degree program consisting of two years of preprofessional and four years of professional courses. Upon successful completion of the two-year, 62 -credit pre-pharmacy program at the University of Pittsburgh at Bradford, the student may apply for admission to the University of Pittsburgh's School of Pharmacy during the spring of the sophomore year.

## Transfer Program Requirements

Minimum prerequisites include:

- BIOL 0101 - INTRODUCTION TO CELL AND MOLECULAR BIOLOGY
- BIOL 0102 - INTRODUCTION TO BIODIVERSITY
- CHEM 0101 - GENERAL CHEMISTRY 1
- CHEM 0102 - GENERAL CHEMISTRY 2
- CHEM 0206 - ORGANIC CHEMISTRY 1
- CHEM 0207 - ORGANIC CHEMISTRY 1 LAB
- CHEM 0208 - ORGANIC CHEMISTRY 2
- CHEM 0209 - ORGANIC CHEMISTRY 2 LAB
- MATH 0140 - CALCULUS 1
- PSY 0201 - STATISTICS
- ECON 0204 - STATISTICAL METHODS
- MATH 0133 - STATISTICS
- ECON 0102 - INTRODUCTION TO MICROECONOMICS
- ECON 0101 - ECONOMICS IN THE MODERN WORLD
- ECON 0103 - INTRODUCTION TO MACROECONOMICS
- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- PSY 0101 - INTRODUCTION TO PSYCHOLOGY


## Electives:

- Humanities - 6 Credits
- Social Sciences - 6 Credits
- Humanities or Social Sciences - 6 Credits


## Note:

Students may also apply to other schools of pharmacy and should check for their specific prerequisites for pre-pharmacy.

## Pitt-Bradford Affiliation Agreement with Lake Erie College of OsteopathicMedicine (LECOM)'s School of Pharmacy:

If you have successfully completed specific core course requirements on our campus, you may continue your education in pharmacy at LECOM after your third year of undergraduate coursework. In order to be admitted into the first phase of this program at Pitt-Bradford, you must have a minimum SAT (or ACT equivalent) score of 1170 (math and verbal sections), a minimum high school GPA of3.5, and exhibit potential for a successful career in pharmacy. If you are interested in participating in this program, you should contact Dr. Francis Mulcahy at fishnet@pitt.edu.

## Course Information

Please note, when searching courses by Catalog Number, an asterisk (*) can be used to return mass results. For instance a Catalog Number search of " 1 * " can be entered, returning all 1000-level courses.

## Accounting

## ACCT 0197 - DIRECTED STUDY

Minimum Credits: 1<br>Maximum Credits: 6<br>Independent study in a topic in accounting. Permission of the instructor required.<br>Academic Career: Undergraduate<br>Course Component: Directed Studies<br>Grade Component: LG/SNC Elective Basis

## ACCT 0201 - FINANCIAL ACCOUNTING CONCEPTS

## Minimum Credits: 4

Maximum Credits: 4
This course provides the fundamentals of accounting principles and practices. It presents information on the decision-making processes to those external to the business owners, investors, potential investors, creditors, and the public at large.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## ACCT 0202 - MANAGERIAL ACCOUNTING CONCEPTS

## Minimum Credits: 3

## Maximum Credits: 3

Study focuses on the role of accounting principles and practices yielding information in the decision-making processes to those managers responsible for the internal aspects of the organization. Three types of management accounting information and their purposes are studied - full cost, differential and responsibility accounting - which are useful to managers. Heavy emphasis is placed on various cost accounting methods used to analyze, plan, and control the business.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prereq ACCT 0201

## ACCT 1301 - INTERMEDIATE ACCOUNTING 1

## Minimum Credits: 3

Maximum Credits: 3
This course provides an intensive analysis of the valuation, measurement, and statement presentation of asset, liability, ownership equity, revenue, and expense components facing business enterprises. Preparation and use of funds statements as well as price level adjustment of financial statements.

Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prereq ACCT 0202 and competency courses

## ACCT 1302-INTERMEDIATE ACCOUNTING 2

## Minimum Credits: 3

Maximum Credits: 3
This course provides an in-depth study of accounting functions and basic theory, acquisition of assets and services, income and equity accounting, and the analysis of financial statements.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prereq ACCT 1301 \& competency

## ACCT 1303 - STRATEGIC COST MANAGEMENT

## Minimum Credits: 3

Maximum Credits: 3
This course focuses on advanced topics in cost and managerial accounting. Emphasis is on standard cost systems and variance analysis; absorption and variable costing; capital budgeting techniques and income tax impact assessment; and short and long range forecasting and reporting.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prereq ACCT 0202 and competency courses

## ACCT 1304-FEDERAL INCOME TAXES

## Minimum Credits: 3

Maximum Credits: 3
This course is an in-depth analysis of the federal income tax statutes and regulations relating to the taxation of individuals and sole proprietorships. Topics include: concepts of revenue and expenses, tax methods and treatment of the disposition of property (including capital gains and losses and tax research).
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## ACCT 1305-AUDITING

## Minimum Credits: 3

Maximum Credits: 3
This course presents principles and procedures of auditing, accepted auditing standards, internal control, audit objectives and reports, form preparation, use of audit work papers, and audit evidence.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prereq ACCT 1320 \& competency

## ACCT 1306 - FEDERAL CORPORATE INCOME TAXES

## Minimum Credits: 3

Maximum Credits: 3
Examines federal income tax statutes and regulations emphasizing the relationship between management decisions and their tax consequences.
Topics include employee compensation and other benefits; depreciation, depletion, and amortization; alternative minimum tax, inventory valuation; and changes in accounting methods.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## Minimum Credits: 3

Maximum Credits: 3
Intermediate accounting 3 is a continuation of intermediate accounting 2. The course continues the in-depth examination of financial reporting topics, including: earnings per share, leases, long-term investments, revenue recognition, income taxes and pensions.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prereq ACCT 1302 \& competency

## ACCT 1320 - ACCOUNTING INFORMATION SYSTEMS

## Minimum Credits: 3

Maximum Credits: 3
This course is an introduction to accounting information systems and information systems theory. Topics include accounting transaction cycles, internal control concepts, database management, electronic commerce and computer crimes.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prereq ACCT 0202 and competency courses

## ACCT 1401-ADVANCED ACCOUNTING

## Minimum Credits: 3

Maximum Credits: 3
Course will extend study of financial accounting by examining special topics including fund accounting, business combinations, consolidated financial statements, interim and segment reporting.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prereq ACCT 1312 \& competency

## ACCT 1450 - TOPICS IN ACCOUNTING

## Minimum Credits: 3

Maximum Credits: 3
The advanced study of a special topic in Accounting.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## ACCT 1494 - UNDERGRADUATE FACULTY ASSISTANT

## Minimum Credits: 1

Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit

## ACCT 1496-COOPERATIVE EDUCATION IN ACCOUNTING

Minimum Credits: 3
Maximum Credits: 12
This course offers students an opportunity to integrate classroom instruction with a practical supervised work experience. 540 Documented hours required.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: Completion of competency courses (FS 0102, ENG 0101 \& 0102 ) and MATH 0150 Calculus 2.

## ACCT 1497 - DIRECTED STUDY: ACCOUNTING

Minimum Credits: 1
Maximum Credits: 6
Directed study in a specific area of accounting. Permission of the instructor is required.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101 , ENG 0102 , FS 0102 , and the MATH competency

## ACCT 1498 - DIRECTED RESEARCH: ACCOUNTING

## Minimum Credits: 1

Maximum Credits: 6
Students gain research experience by helping to design and carry out a research project mutually agreed upon by the student and an accounting faculty supervisor.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101 , ENG 0102 , FS 0102 , and the MATH competency

## ACCT 1499- INTERNSHIP: ACCOUNTING

## Minimum Credits: 1

Maximum Credits: 6
An accounting internship provides practical experience in accounting in a professional setting. Work is directed by the employer and evaluated jointly with the faculty supervisor.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit

## Administration of Justice

## ADMJ 0101 - INTRO TO CRIMINAL JUSTICE

Minimum Credits: 3
Maximum Credits: 3
This course will emphasize administration of justice in the United States. The interrelationship of the police, courts, and corrections will be examined.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Behavioral Sciences

## ADMJ 0102-AMERICAN CORRECTIONS

## Minimum Credits: 3

Maximum Credits: 3
A study of correctional structure and operation. The course explores origins of correctional institutions and the evolution of correctional practices in contemporary society. Covered also are non-institutional forms of correctional control focusing on alternatives to incarceration in community settings. Programs reviewed include, institutional corrections, intermediate sanctions, community based corrections, community justice and balanced and restorative justice programs.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## ADMJ 0197 - DIRECTED STUDY

Minimum Credits: 1
Maximum Credits: 6
Directed study
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

## ADMJ 0203 - PROBATION AND PAROLE

## Minimum Credits: 3

Maximum Credits: 3
An examination of the nature of parole, the factors influencing probation decisions, adult and juvenile probation services, and how probation and parole impact on the criminal justice system and on society.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## ADMJ 0204 - POLICE AND SOCIETY

## Minimum Credits: 3

Maximum Credits: 3
The law enforcement agencies of the federal, state, and local levels that are responsible for the control of crime and protection of society via maintenance of order, law enforcement, and peacekeeping functions within our social environment will be examined. Major topics include the evolution, development, functions and effects of law enforcement of crime in society. Emphasis is on the theory and practice of social control in society by traditional and emerging forms of policing responding to social and public policy.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## ADMJ 0205 - POLICE AND SOCIETY: RACE, CRIME AND JUSTICE

## Minimum Credits: 3

Maximum Credits: 3
This course will examine the collective social, political, psychological, and cultural constructs of systemic anti-Black police violence in the United States of America. Topics will include critical race theory, the slave patrol origins of policing, the slave codes, the Black codes, Jim Crow, COINTELPRO, the war on drugs, racial profiling, stop \& frisk, and mass incarceration.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Attributes: UPB Behavioral Sciences General Ed. Requirement
General Education: Behavioral Sciences

ADMJ 0206-CRIMINOLOGY

## Minimum Credits: 3

Maximum Credits: 3
This course examines the nature of criminal behavior, criminal law, and the American system of criminal justice. Sociological, biological, and psychological theories of criminal behavior are explored. Topics include the sociological impact of criminal behavior on contemporary society; issues of constitutional law and current issues in criminal justice. The relationship of the police, the courts, and correctional institutions to American society is also discussed.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## ADMJ 0207 - PRIVATE SECURITY

Minimum Credits: 3
Maximum Credits: 3
This course provides an overview of the role of security in society and the place of private security vis-a-vis other security professions in the United States. Topics covered include current trends/global views of security, practical applications of security principles, prevention/investigation and disaster recovery services, and protection of persons/property.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## ADMJ 0215-LAW ENFORCEMENT OPERATIONS

## Minimum Credits: 3

Maximum Credits: 3
This course covers all aspects of law enforcement and police operations. Students will learn about police organizational structures, patrol tactics, arrest procedures, police management, traffic operations, new law enforcement technology, and other topics relevant to modern law enforcement operations.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## ADMJ 0230-INTRO TO FORENSIC SCIENCE

## Minimum Credits: 3

Maximum Credits: 3
This course examines forensic techniques commonly used in criminal investigations such as: crime scene reconstruction, hair, fiber, soil, inorganic and organic analysis, spectroscopy, microscopy, toxicology, fingerprints, firearms, and DNA. The description, scientific underpinnings, and limitations of forensic techniques are discussed. The course gives students a background in scientific tools available to investigate crime.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## ADMJ 0235-TERRORISM IN A POST-9/11 WORLD

## Minimum Credits: 3

Maximum Credits: 3
This course will explore the global issue of terrorism in a post- $9 / 11$ world. It is designed to provide students, especially criminal justice professionals, with a holistic understanding of terrorism, and the major issues associated with responding to terrorist incidents. The course will also examine the challenges of investigating terrorist events, and the use of the patriot act in a democratic society.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Behavioral Sciences

## Minimum Credits: 3

Maximum Credits: 3
This course will introduce students into the correctional procedures, practices, strategies, and personnel regarding innovative approaches to criminal justice diversion programs applied in a community setting.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## ADMJ 0245 - ETHICS IN CRIMINAL JUSTICE

## Minimum Credits: 3

Maximum Credits: 3
This course will introduce students into the study of the decision-making process in criminal justice as it relates to discretion, due process, truthfulness, corruption, and discrimination.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## ADMJ 0255 - WHITE COLLAR CRIMES

## Minimum Credits: 3

## Maximum Credits: 3

This course will introduce students into the study of contemporary forms of white collar crime, its explanations, and theories, along with its investigation, adjudication, and regulation.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## ADMJ 0260 - VIOLENCE AND CRIME

## Minimum Credits: 3

Maximum Credits: 3
This course will introduce students into the dynamic relationship between violence and crime by examining various theories of human aggression and how they produce violent criminal behavior. Violent crimes such as homicides, sexual assaults, robberies, drug trafficking, hostage-taking, and kidnappings will be highlighted.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## ADMJ 1302-CRIMINAL LAW AND PROCEDURE

## Minimum Credits: 3

Maximum Credits: 3
This course examines criminal and constitutional law as it impacts law enforcement in the criminal justice process. Included are studies of arrest, search and seizure, confessions, and evidence procedures as they relate to the everyday duties of the law enforcement officer.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## ADMJ 1304 - JUVENILE JUSTICE SYSTEM

## Minimum Credits: 3

Maximum Credits: 3
This course examines the agencies and processes dealing with juvenile justice in the United States. Topics covered include a history of the juvenile justice system, police handling of juveniles, the juvenile court, detention, and treatment of offenders.

Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## ADMJ 1305 - MEDIA, CRIME \& THE CRIMINAL JUSTICE SYSTEM

## Minimum Credits: 3

Maximum Credits: 3
This course examines how mass media both reflect and shape popular notions of crime and justice, including policing, the judicial system, incarceration, and victimization. The theoretical intersection between criminality, crime, and the mass media will be explored, including ways in which the media contributes to the social construction of crime and justice.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## ADMJ 1306-CRIME, JUSTICE, \& THE MENTALLY DISORDERED

Minimum Credits: 3
Maximum Credits: 3
This course provides students with the theoretical and applied understanding of how crime, justice, and mental illness intersect from a systematic perspective, and the knowledge of various forms of mental disorder and disabilities that criminal justice professionals will likely confront in people during their careers. This course will enable students to identify those who need to be deferred into specialty courts such as mental health, drug and domestic violence courts, as well as management of the mentally ill once they are detained. Techniques for managing a mental health crisis in victims and offenders will also be addressed.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101 , ENG 0102 , FS 0102 , and the MATH competency

## ADMJ 1307-COMPARATIVE JUSTICE SYSTEMS

## Minimum Credits: 3

Maximum Credits: 3
This course examines the criminal justice systems of various nations around the world. Police, courts, corrections, and juvenile justice systems are included in the topics explored..
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101 , ENG 0102 , FS 0102 , and the MATH competency General Education: Global

## ADMJ 1308 - TERRORISM, INTELLIGENCE, AND HOMELAND SECURITY

## Minimum Credits: 3

## Maximum Credits: 3

This course covers the historical and contemporary issues interrelating terrorism, intelligence, and homeland security. The course represents not only a strong scholarly approach to the study of terrorism, but also incorporates the real-world experience of federal agents, police officers, and soldiers tasked with preventing terrorist attacks in the United States.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0104 (or FS 0102), and the MATH competency

## ADMJ 1310 - DRUGS, CRIME, AND SOCIAL POLICY

## Minimum Credits: 3

Maximum Credits: 3
This course will explore the social phenomena of the relationship between drugs and crime. Included will be the examination of drug use and drug trafficking in America, including the 'war on drugs' and the construction and/or application of various drug policies, as well as the social debate of legalization and/or decriminalization.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## ADMJ 1315-MANAGEMENT AND SUPERVISION IN CRIMINAL JUSTICE

## Minimum Credits: 3

Maximum Credits: 3
A study of criminal justice agency structure at the local, state, and federal levels. Emphasis is on management and supervision theory and methods of bureaucracies and complex organizations with emphasis on the concepts and practices of the organization and management of agencies in the administration of justice. Included are topics of communication, motivation, job design, leadership, power, conflict, decision making and change.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## ADMJ 1320 - RESEARCH METHODS IN CRIMINAL JUSTICE

## Minimum Credits: 3

Maximum Credits: 3
This course is an introduction to the basic criminological research methods designed to prepare the student to read, understand and participate in quantitative and qualitative research. Examined are the forms of research and statistics, including different ways of research designs, testing and experiments, sampling techniques, survey research, and qualitative and quantitative analysis of data.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, MATH competency and Junior Level Status

## ADMJ 1321 - LAW AND SOCIAL CONTROL IN SOCIETY

## Minimum Credits: 3

Maximum Credits: 3
This course examines how laws influence criminal behavior within a society. Students will explore the relationship between local, state, and federal laws and social control, the role of the criminal justice system in behavior modification, and assess relevant criminological theories as these factors apply to society and social change. Emphasis will be placed on analyzing the applicability of the 4th, 5 th, 6 th, 8 th, and 14th amendments as social control mechanisms.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101 , ENG 0102 , FS 0102 , and the MATH competency

## ADMJ 1325-CRIMINAL EVIDENCE/INVESTIGATION

## Minimum Credits: 3

## Maximum Credits: 3

This course provides an introduction to criminal evidence. The topics include how evidence is collected and developed, the different types of evidence, the legal standards for admissibility of evidence, and the role of evidence in criminal investigation.

Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## ADMJ 1330-CRIMINAL FORENSICS 1

## Minimum Credits: 3

Maximum Credits: 3
This course will allow students to demonstrate basic criminal forensic investigative skills. Students will be exposed to "hands-on" fieldwork regarding criminal investigations. This course will focus on several types of crime scene scenarios to include, but not limited to: arson; assault; burglary; drug; robbery; sexual assault; and homicide investigations. This course will also provide students with the ability to apply basic skills used in criminal investigations to include: securing and processing crime scenes; interviewing witnesses and suspects; report writing and search warrant documentation preparation; and the practical application of criminal procedure and courtroom testimony.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0104 (or FS 0102), and the MATH competency

## ADMJ 1331 - CRIMINAL FORENSIC 1 LAB

## Minimum Credits: 1

Maximum Credits: 1
This lab is offered currently with ADMJ 1330, Criminal Forensics 1. The lab is designed to facilitate a hands-on experience to learn about the criminal forensics process. The lab will involve demonstrating criminal forensic techniques in a variety of mock crime scenarios and investigations, and learning how to properly document criminal investigations.
Academic Career: Undergraduate
Course Component: Laboratory
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0104 (or FS 0102), and the MATH competency

## ADMJ 1335-CONFLICT AND CRISIS MANAGEMENT

## Minimum Credits: 3

Maximum Credits: 3
This course will provide a comprehensive understanding and examination of the theories involving conflict and crisis management, and the intervention models and protocols used to resolve conflicts. Crisis management will be explored among and between individuals and groups, organizations, communities, and within the criminal justice system. Topics will include the management of violent conflicts, such as prison riots, hostage-barricade, terrorist acts, and the response to natural disasters.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## ADMJ 1340 - GANGS: THEORY, PRACTICE, AND SUPPRESSION

## Minimum Credits: 3

## Maximum Credits: 3

This course will provide a unique and comprehensive understanding of gangs in society. The course will focus on theories of gang behavior, and examine criminal activity, gender issues, race and ethnicity, gangs in prisons and schools, gang victimization, along with gang prevention and intervention programs.
Academic Career: Undergraduate
Course Component: Lecture

## ADMJ 1345-INTERNATIONAL AND GLOBAL CRIME

## Minimum Credits: 3

Maximum Credits: 3
This course will provide a comprehensive understanding of international crime and the global criminal justice strategies used for fighting transnational crime. An emphasis will be placed on the rise of international crime, human trafficking, smuggling, sea and air piracy, the international drug trade, and transnational money laundering. Criminal investigative techniques involving international law, the FBI and Interpol, along with the problems of enforcement, extradition, and transnational pursuit will also be discussed.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0104 (or FS 0102), and the MATH competency

## ADMJ 1360-REENTRY AND THE OFFENDER

## Minimum Credits: 3

Maximum Credits: 3
This course will examine the challenges of offender reentry and reintegration back into communities upon release from prison. A variety of reentry initiatives and concepts will be examined including restorative justice, victimology, pre-release programs, faith-based initiatives, drug rehabilitation, and vocational training.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## ADMJ 1365 - SUBSTANCE ABUSE AND TREATMENT IN THE COMMUNITY

## Minimum Credits: 3

Maximum Credits: 3
This course will examine the various models of community based programs for the substance abuse involved offender, research regarding factors of recidivism, treatment matching, case management, relapse prevention techniques, setting treatment goals, resources in the community and dui and drug court operations.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101 , ENG 0102 , FS 0102 , and the MATH competency

## ADMJ 1370 - VICTIMOLOGY: CHILD ABUSE AND EXPLOITED CHILDREN

## Minimum Credits: 3

Maximum Credits: 3
This course will examine the field of victimology and explore its theories, concepts, and application. The course will highlight the topics of family violence which include child abuse, including neglect, physical abuse, sexual abuse, emotional and verbal abuse, and the prevention, intervention and treatment issues associated with exploited children.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101 , ENG 0102 , FS 0102 , and the MATH competency

## Minimum Credits: 3

Maximum Credits: 3
A study of the juvenile correctional system. This course explores correctional options and treatment alternatives for juveniles adjudicated as delinquent or criminal. Programs reviewed include residential placement, wilderness based adventure programs, secure-care custody, diversionary programs, juvenile probation, boot camps, and community service.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, MATH competency and Junior Level Status

## ADMJ 1401-CONTEMPORARY ISSUES IN LAW ENFORCEMENT

## Minimum Credits: 3 <br> Maximum Credits: 3

This course addresses current topics related to trends and controversies in law enforcement.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0104 (or FS 0102), and the MATH competency

## ADMJ 1402-CONTEMPORARY ISSUES IN CORRECTIONS

## Minimum Credits: 3

Maximum Credits: 3
This course addresses current topics related to trends and controversies in corrections.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0104 (or FS 0102), and the MATH competency

## ADMJ 1403 - CONTEMPORARY ISSUES IN COURTS, POLICY, JUSTICE

## Minimum Credits: 3

Maximum Credits: 3
This course addresses current topics related to trends and controversies in courts, policy and justice.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0104 (or FS 0102), and the MATH competency

## ADMJ 1404 - THE POLICING CULTURE: POLITICS, COMMUNITY \& ACCOUNTABILITY

## Minimum Credits: 3

Maximum Credits: 3
This course provides a critical examination of the policing culture. Focus will be placed on the collective intersection between inner-cultural, political, and community expectations, within the social construction of crime and justice. Special emphasis will be placed on examining strategies for policing and criminal justice reform.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0104 (or FS 0102), and the MATH competency

## ADMJ 1405-PSYCHOLOGY AND CRIME

Minimum Credits: 3
Maximum Credits: 3
This course is designed to provide a challenging venue for students who are particularly interested in how psychology and criminology are interrelated. The course is intended to introduce the student to how psychology influences the study of crime; to provide a comfortable interactive learning environment; to encourage critical thinking and discussion, and to allow the student to study a topic of particular interest with some depth.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## ADMJ 1406-ETHICAL ISSUES IN CRIMINAL JUSTICE

## Minimum Credits: 3

Maximum Credits: 3
This course will explore moral and ethical philosophies and theories as it relates to the field of criminal justice. This course will take an in-depth look at ethical dilemmas faced by professionals working within law enforcement, corrections, and courts. There will also be an exploration of ethical issues as it relates to criminal justice policy-making. Students will explore their own moral and ethical development. Prerequisite: Junior standing and completion of competency courses for upper level course
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, MATH competency and Junior Level Status

## ADMJ 1415 - ISLAM AND SOCIAL JUSTICE

## Minimum Credits: 3

Maximum Credits: 3
This course is designed to provide students with a holistic understanding of Islam and its universal concept of social justice. This course will provide a historical, theoretical, analytical examination of Islam, and its continued evolution in the United States. Islamic faith, practice, customs, culture, society, economics, as well as discourse involving political violence will be explored. This course will also examine the relationship and challenges faced by law enforcement agencies and the Muslim-American community since the events of 9/11.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency General Education: Behavioral Sci-Global

## ADMJ 1430-CRIMINAL FORENSICS 2

## Minimum Credits: 3

Maximum Credits: 3
This course will allow students to demonstrate advanced criminal forensic investigative skills. Students will focus on several types of advanced indoor and outdoor crime scene scenarios, specifically concentrating on violent criminal investigations. The various scenarios will include multiple homicides, criminal profiling; sex-related homicides; homicides made to appear as accidents; homicides made to appear as suicides; handling buried body cases; murder-suicide; infant abductions and SID cases.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## ADMJ 1431 - CRIMINAL FORENSICS 2 LAB

Minimum Credits: 1
Maximum Credits: 1
This lab is offered currently with ADMJ 1430, criminal forensics 2 . The lab is designed to facilitate a hands-on experience to learn about the criminal forensics process. The lab will involve demonstrating advanced criminal forensic techniques in a variety of mock crime scenarios and investigations, and learning how to properly document criminal investigations.
Academic Career: Undergraduate
Course Component: Laboratory
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## ADMJ 1435-JUVENILES WHO MURDER

Minimum Credits: 3
Maximum Credits: 3
The advanced study of juvenile violence, patterns and causes. The course explores various types of violent crime with a specific focus on murder. Legal policies for processing youth in the juvenile and criminal justice systems are also discussed.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, MATH competency and Junior Level Status

## ADMJ 1447 - SPECIAL TOPICS IN POLICING

Minimum Credits: 3
Maximum Credits: 3
The advanced study of a special topic in the policing component of the criminal justice system.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: ADMJ 0101 and completion of ENG 0101, ENG 0102 , FS 0102 , and the MATH competency

## ADMJ 1448 - SPECIAL TOPICS IN CORRECTIONS

## Minimum Credits: 3

Maximum Credits: 3
The advanced study of a special topic in the corrections component of the criminal justice system.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101 , ENG 0102 , FS 0102 , and the MATH competency

## ADMJ 1449 - SPECIAL TOPICS IN COURTS

## Minimum Credits: 3

Maximum Credits: 3
The advanced study of a special topic in the courts component of the criminal justice system.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101 , ENG 0102, FS 0102, and the MATH competency

## ADMJ 1451 - CAPSTONE: CRIMINAL JUSTICE

Minimum Credits: 3
Maximum Credits: 3

This seminar examines specialized topics in administration of justice. The purpose of this seminar is to generate a senior thesis in which students synthesize and apply concepts, theories and empirical research to a particular topic in administration of justice.
Academic Career: Undergraduate
Course Component: Seminar
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, MATH competency and Junior Level Status

## ADMJ 1494 - UNDERGRADUATE FACULTY ASSISTANT

## Minimum Credits: 1

Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit

## ADMJ 1495-CRIMINAL JUSTICE STUDY ABROAD

Minimum Credits: 1
Maximum Credits: 15
Academic Career: Undergraduate
Course Component: Independent Study
Grade Component: LG/SNC Elective Basis

## ADMJ 1496-FIELD PLACEMENT

Minimum Credits: 1
Maximum Credits: 6
Field placement with an agency will allow a student the opportunity to explore career choices while gaining actual job experience in the field.
Students may choose a field placement experience in an agency or organization related to the practice of potential career ambitions. Agency placements may include any agency directly related to a student's academic studies and career options. Students must fill out a field placement application and submit it to their program director.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: Completion of competency courses (FS 0102, ENG $0101 \& 0102$ ) and MATH 0150 Calculus 2.

## ADMJ 1497 - DIRECTED STUDY: ADMINISTRATION OF JUSTICE

Minimum Credits: 1
Maximum Credits: 6
Directed study in a specific area of administration of justice.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101 , ENG 0102 , FS 0102 , and the MATH competency

## ADMJ 1498 - DIRECTED RESEARCH: ADMINISTRATION OF JUSTICE

Minimum Credits: 1
Maximum Credits: 6
Independent work on a project in administration of justice supervised by a member of the administration of justice faculty.

## ADMJ 1499 - INTERNSHIP: ADMINISTRATION OF JUSTICE

## Minimum Credits: 1

Maximum Credits: 6
Supervision by a faculty member and an on-site supervisor at a law enforcement agency or correctional institution.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit

## Africana Studies

## AFRCNA 0101 - INTRODUCTION TO AFRICANA STUDIES

## Minimum Credits: 3 <br> Maximum Credits: 3

This course is an introduction to the field of Africana Studies. Students will be exposed to the basics of theory in Black Studies. The works of scholars such as W.E.B. Du Bois, G. Carter Woodson, John Hope Franklin, bell hooks, and Audre Lorde, among others, will be studied to give students an intellectual and academic foundation in the field of Black/Africana studies. A combination of written texts and audiovisual media will be used in course delivery. Topics such as the Enlightenment, white supremacist violence, social justice, civil rights, Pan-Africanism, cultural nationalism, Black feminism and the Black church will be covered. The purpose is to give students a broad but deep knowledge of the forces that animate the various Black/African-American communities in the US and beyond. GE Cultures Global Competency
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Cultures-Global

## AFRCNA 0210 - MODERN BLACK THEATRE

## Minimum Credits: 3

Maximum Credits: 3
From the civil rights era onward, there has been a creative explosion of theatrical work by black artists in America. In the theatrical work of this turbulent modern period, societal myths are retold, interrogated and exploded, and the medium itself is reinvented and reimagined to make room for voices that don't often get heard in our more dominant and therefore reactionary cultural forms. Through careful study of these plays and their playing, and by examining their particular cultural context, questions of race, racism and identity in contemporary American society will be explored.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Attributes: UPB Arts General Ed. Requirement
General Education: Arts

## AFRCNA 0215 - MODERN AFRICAN-AMERICAN CINEMA

## Minimum Credits: 3

## Maximum Credits: 3

Images of African Americans in our mass media - not unlike images of women - have a long history of being limited and limiting. This class will open up discussion of these limiting factors, whether in the particular narratives of "mainstream" Hollywood films, television news, or music videos. We will analyze the development of black voices and black imagery through films that deliberately disrupt and disregard prevailing norms, or that find a place in popular commercial cinema, by reframing the very notion of blackness in our culture.
Academic Career: Undergraduate
Course Component: Lecture

## AFRCNA 0220 - THE BLACK POWER MOVEMENT IN THE U.S. AND BEYOND

## Minimum Credits: 3

Maximum Credits: 3
Students in this course will engage in the study of the Black Power Movement in the 1960's and 1970's, within the narrative of Black political and cultural liberation. We will examine the historical roots, major themes, strategies, outcomes, significant Pan-African figures, and the COINTELPRO efforts used by the U.S. government determined to destroy the Black Power Movement. Students will also grapple with the international events that influenced the movement's politics of revolution, which includes the anti-colonial movement in Afrika. This course will shape students understanding of the Black Power vision of liberation and gauge its lasting impact on the Black diaspora today.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## AFRCNA 1498 - DIRECTED RES AFRICANA STUDIES

Minimum Credits: 1
Maximum Credits: 6
Independent work on a project in Africana Studies.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

## AFRCNA 1498 - DIRECTED RES AFRICANA STUDIES

Minimum Credits: 1
Maximum Credits: 6
Independent work on a project in Africana Studies.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

## Anthropology

## ANTH 0101 - INTRODUCTION TO CULTURAL ANTHROPOLOGY

## Minimum Credits: 3

Maximum Credits: 3
This course is basic to an understanding of anthropology and covers an analysis of the concept of culture, a brief overview of the evolution of culture, of anthropological theory and methodology, the importance of human language, and a systematic survey of technology, economics, political and social organization, religion, and art in human societies.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Attributes: UPB Cultures General Ed. Requirement, UPB Global General Ed. Requirement
General Education: Cultures-Global

## ANTH 0105- NORTH AMERICAN INDIAN ART

## Minimum Credits: 3

Maximum Credits: 3
The relationship of art to the social, political, religious, and economic activities of Indians of North America. Included throughout the term are discussions of how art can be defined cross-culturally, its links to environment and technology and the modifications that occurred in Indian art as a
result of contact with non-Indian groups.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Cultures-Global

## ANTH 0112-TOURISM

## Minimum Credits: 3

Maximum Credits: 3
This is a course designed to introduce the students to the many facets of the world's largest industry, tourism. The approach is multidisciplinary focusing on such issues as work and leisure, tradition and modernity, growth and pollution, security and terrorism, privilege and servitude.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Cultures

## ANTH 0220 - POLITICAL ANTHROPOLOGY

## Minimum Credits: 3

Maximum Credits: 3
Political Anthropology surveys the different approaches human societies have taken to organizing collective decision making, maintaining social order, and managing social interaction in non-industrial and industrial contexts. Emphasis is given to the significance of racial, ethnic, class, and/or gender inequalities as shaping the dynamics of political power in historical and contemporary contexts. GE: Cultures
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Attributes: UPB Cultures General Ed. Requirement
General Education: Cultures

## ANTH 0225 - FOOD IN SOCIETIES

## Minimum Credits: 3

Maximum Credits: 3
Humans, unlike other animals, exercise far more choices when it comes to what they eat. These choices involve simple decisions like where we eat, what we eat, with whom we eat, and when. But how do we account for the diversity that we see in how we obtain, distribute and consume food? Is food simply something that we eat, or something far more important in terms of how we relate to each other morally, socio-economically, politically and religiously? This course will address these questions through the intellectual frameworks of philosophy and anthropology.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Cultures

## ANTH 0230 - PRACTICING ANTHROPOLOGY

Minimum Credits: 3
Maximum Credits: 3
Practicing anthropology surveys current trends in the field of anthropology. Emphasis is placed on understanding contemporary ethnographic theory and debates, emergent research approaches and research sites, and applications of anthropological knowledge within and beyond academia.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Attributes: UPB Behavioral Sciences General Ed. Requirement
General Education: Behavioral Sciences

## ANTH 0235 - APPALACHIAN CULTURE

## Minimum Credits: 3

Maximum Credits: 3
This course offers an introductory survey to the cultural traditions of people living in the Appalachian mountains of the United States. The broad influences of economic change, political organization, and popular culture on Appalachian culture are considered from historical and contemporary perspectives, including the experiences of ethnic minorities and women in the region.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Cultures

## ANTH 1304-ECOLOGICAL ANTHROPOLOGY

Minimum Credits: 3
Maximum Credits: 3
The first part of the course will be an overview of the ecological approach in analyzing different cultures. The second part covers examples of how humans have adapted, both culturally and physiologically, to different environments, specifically the arctic, high altitudes, deserts, grasslands, and the humid tropics.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## ANTH 1305-RELIGION AND CULTURE

Minimum Credits: 3
Maximum Credits: 3
The relationship of religion to human behavior in societies of various kinds will be examined in this course. The objective is to gain an understanding of the different theories that have been offered by anthropologists to explain the widespread existence of religion in modern and tribal societies.
Special attention is given to the problem of defining religion and witchcraft, and the religious treatment of death.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency General Education: Cultures-Global

## ANTH 1307-POVERTY AND SOCIETY

## Minimum Credits: 3

Maximum Credits: 3
Poverty is a problem confronting most of the world's societies. This course examines poverty from an economic, political, social, cultural, and psychological point of view. Special attention is given to poverty and programs to combat it in northwestern Pennsylvania.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## ANTH 1325-LATIN AMERICA TODAY

## Minimum Credits: 3

Maximum Credits: 3
This course is an introduction to contemporary Latin America. It includes discussions of contemporary Indian populations, socio-cultural change, ethnic relations, environmental relations, gender relations, social structure, economics, politics, popular culture, and the role of religion in contemporary society.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0104 (or FS 0102), and the MATH competency
General Education: Cultures

## ANTH 1330-ETHNIC AND TOURIST ARTS

Minimum Credits: 3
Maximum Credits: 3
Throughout the world, indigenous peoples have been creating arts and crafts both for themselves and for outsiders for a long time. This course examines the impact of this artistic production and exchange both historically and today, when billions of dollars of arts and crafts are purchased every year from all over the globe. How has this changed the objects being purchased? How have the materials in them changed? How have their makers changed? What do their makers thinks about who purchase what they make, and the value (both monetarily and culturally) of their evolving cultures. To begin to answer these questions, we will be looking at ethnic and tourist arts from all over the world. Ge: cultures: non-Western
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency General Education: Cultures-Global

## ANTH 1335-GLOBALIZATION

## Minimum Credits: 3

Maximum Credits: 3
This course provides an overview of the economic, social, technological, environmental, and ideological impacts of globalization on national communities, with an emphasis on the cultural and political dynamics of the process. Student research and oral presentation skills are emphasized.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101 , ENG 0102 , FS 0102 , and the MATH competency General Education: Cultures

## ANTH 1497 - DIRECTED STUDY: ANTHROPOLOGY

Minimum Credits: 1<br>Maximum Credits: 6<br>Independent study in anthropology supervised by a member of the anthropology faculty.<br>Academic Career: Undergraduate<br>Course Component: Directed Studies<br>Grade Component: LG/SNC Elective Basis<br>Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0104 (or FS 0102), and the MATH competency

## ANTH 1498 - DIRECTED RESEARCH: ANTHROPOLOGY

## Minimum Credits: 1

Maximum Credits: 6
Independent research on a project in anthropology supervised by a member of the anthropology faculty.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

## ANTH 1499 - INTERNSHIP: ANTHROPOLOGY

## Minimum Credits: 1

Maximum Credits: 6
This is an internship for human relations majors to allow them to apply the knowledge and skills learned in the classroom to practical situations in a
professional setting. Internships are assigned on a basis of student's interest and the availability of positions.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit

## Art

## ART 0101 - DRAWING 1

Minimum Credits: 3
Maximum Credits: 3
This course explores drawing techniques, media, and methods of composition. Emphasis is placed on the human form and other subjects in order to develop pictorial, perceptual and problem solving skills.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Arts

## ART 0103 - DIGITAL GRAPHIC DESIGN 1

## Minimum Credits: 3

Maximum Credits: 3
This is an introductory course that will survey the concepts, methods, and issues of design as a vehicle of visual organization, thought, and expression. Through the use of digital applications, emphasis will be placed on design elements and principles. Those subjects are explored through lectures, discussions, critiques, and the process of making images.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Attributes: UPB Arts General Ed. Requirement
General Education: Arts

## ART 0105 - WORLD ART: ANCIENT TO MEDIEVAL

## Minimum Credits: 3

Maximum Credits: 3
A study of the key stages in the evolution of art and architecture. Emphasis on understanding the visual language of art as an expression of relationships to the cultural, historical, and philosophical context in which the artist lives.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Arts-Global

## ART 0106 - WORLD ART: RENAISSANCE TO CONTEMPORARY

Minimum Credits: 3
Maximum Credits: 3
A study of the key stages in the evolution of art and architecture. The student will learn to analyze a work of art and to specify its cultural and historical context.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Arts-Global

## ART 0109 - MURAL DESIGN

## Minimum Credits: 3

Maximum Credits: 3
An introduction to basic mural design and painting with emphasis on idea development, collaborative painting execution, and sequential learning experience. Students will work in the studio and on the mural site and explore contemporary approaches in mural painting.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Attributes: UPB Arts General Ed. Requirement
General Education: Arts

## ART 0110 - CERAMICS: HAND BUILDING

## Minimum Credits: 3

Maximum Credits: 3
Studio experience covering basic technique involved in forming, glazing, and firing primarily hand-built three dimensional functional and sculptural ceramic art works. Various approaches to glazing and decorating will also be explored, along with an introduction to throwing forms on a potter's wheel.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Attributes: UPB Arts General Ed. Requirement
General Education: Arts

## ART 0111 - ART APPRECIATION

## Minimum Credits: 3

Maximum Credits: 3
Art Appreciation focuses on the history and development of the visual arts. This course emphasizes primarily the art of Western or Eurocentric cultures. However, Non-Western and Global cultures such as African and Asian art will also be discussed and examined. The course will cover the meanings, purposes, styles, elements, and principles of art, along with the history of art and the various media used to create works of art.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Arts

## ART 0112 - PRINTMAKING

Minimum Credits: 3
Maximum Credits: 3
Printmaking i is a basic printmaking course covering the techniques and processes of relief and monotype prints. Student will make prints in a fine arts medium. Stress is placed on application of individual design responses to graphic media. Equal emphasis will be given to the effective development of art content, and the technical achievement.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Attributes: UPB Arts General Ed. Requirement
General Education: Arts

## ART 0113 - DIGITAL PHOTOGRAPHY I

## Minimum Credits: 3

Maximum Credits: 3
This course is an introduction to digital photography and imaging. Emphasis will be placed on digital applications, processes, and concepts in the production of a body of contemporary photographic inquiry. A digital camera is required. GE: Arts
Academic Career: Undergraduate
Course Component: Lecture

Grade Component: LG/SNC Elective Basis
Course Attributes: UPB Arts General Ed. Requirement

## ART 0197 - Directed Study

Minimum Credits: 1
Maximum Credits: 6
Independent study in art supervised by a member of the art faculty.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

## ART 0201 - COLOR AND DESIGN

## Minimum Credits: 3 <br> Maximum Credits: 3

The purpose of the course is to promote sensitivity to color interaction, spatial awareness, content, and compositional skills. It will also serve to provide a basis for creative growth and expression in visual language application. GE: Arts
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Arts

## ART 0205-CERAMICS: WHEEL THROWING

Minimum Credits: 3
Maximum Credits: 3
This course instructs students in wheel throwing and glazing techniques to create both sculptural and functional ceramics ranging from teapots to abstract sculptures. Students will develop basic hand building, with a focus on wheel-working skills in addition to learning a variety of glazing techniques.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## ART 0208 - WATERCOLOR PAINTING

## Minimum Credits: 3

Maximum Credits: 3
This course is an introduction to basic painting in watercolor with emphasis on sketching, composition development and painting execution. Students will explore watercolor painting techniques and concepts with emphasis on developing individuality and self-expression related to the medium.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Arts

## ART 0250 - SPECIAL TOPICS

Minimum Credits: 3
Maximum Credits: 3
THE STUDY OF A SPECIAL TOPIC IN ART
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## ART 1301 - DRAWING II

## Minimum Credits: 3

Maximum Credits: 3
This course explores the principles of visual language and personal expression, expanding the meanings of drawing techniques, media, methods of composition, approaches and critical theory that were introduced in ART 0101 or ART 0102 . Prerequisite ART 0101 and competencies.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prereq: ART 0101 \& competency
General Education: Arts

## ART 1302 - NEW GENRES

## Minimum Credits: 3

Maximum Credits: 3
This course melds the basic tenets of traditional art and design practice together with contemporary arts ever expanding, fluid mediums while continuing to develop and understand their visual language. By focusing on a content-based, critical thinking approach to art making, students will develop crucial awareness and participation in today's interdisciplinary arts environment. Mixed-media, installation, video, and sound projects will be emphasized. Two foundation courses must be completed in Art or Graphic Design prior to taking this course.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prereq: ART 101,201or101,103(or 113)

## ART 1303 - DIGITAL GRAPHIC DESIGN II

Minimum Credits: 3
Maximum Credits: 3
Design projects examine two-dimensional space and typographic aesthetic, and further investigate the elements and principles of design. Problems will explore advanced computer graphic design and reproduction considerations and the development of a professional design through process. This is also a computer-based course.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: Completion of ART 0103 is required for ART 1303
General Education: Arts

## ART 1304 - DIGITAL PHOTOGRAPHY II

## Minimum Credits: 3

## Maximum Credits: 3

In this course emphasis will be placed on the exploration, expansion and development of the aesthetic, critical and technical concerns of digital photographic applications, various studio processes and alternative methods of presentation. Students will focus on building content in the production of a body of contemporary photographic inquiry.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREREQ ART 0113 and competencies

## ART 1310-PAINTING

## Minimum Credits: 3

Maximum Credits: 3
This intermediate course is a comprehensive exploration of painting techniques and concepts designed to expand awareness of the craft of painting and to expose students to issues relevant to contemporary painting and theory.
Academic Career: Undergraduate
Course Component: Lecture

Grade Component: LG/SNC Elective Basis
Course Requirements: Prereq: ART 0101, 0201 \& comp.
General Education: Arts

## ART 1401 - WATERCOLOR

## Minimum Credits: 3

Maximum Credits: 3
This course focuses on traditional painting in watercolor. The use of drawing and composition are emphasized. Students will explore watercolor painting techniques and concepts while developing self-expression and content related to the medium. Prerequisites ART 0101 and 0201.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prereq: ART 0101, 0201 \& comp.

## ART 1450 - TOPICS IN ART

## Minimum Credits: 3

Maximum Credits: 3
Advanced study of a special topic in studio art, art history, or art criticism. Permission of instructor is required.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## ART 1494 - UNDERGRADUATE FACULTY ASSISTANT

## Minimum Credits: 1

## Maximum Credits: 3

The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit

## ART 1497 - DIRECTED STUDY: ART

## Minimum Credits: 1

Maximum Credits: 6
Directed study in a specific area of art. Permission of the instructor is required.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## ART 1499 - INTERNSHIP IN ART

Minimum Credits: 1
Maximum Credits: 6
Practical experience in art in a professional setting. Work is directed by the employer and evaluated jointly with the faculty supervisor.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## Astronomy

## ASTRON 0101 - INTRODUCTION TO ASTRONOMY

## Minimum Credits: 3

Maximum Credits: 3
This introductory course in astronomy includes topics in light and the telescope, solar system, stars, nebulae, stellar evolution, quarks to quasars, galactic systems and cosmology.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Physical Science

## Biology

## BIOL 0091 - CONCEPTS OF BIOLOGY

## Minimum Credits: 3

Maximum Credits: 3
Designed for the non-major. A survey of biological concepts providing students with a good understanding of how biology relates to everyday life.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Life Science

## BIOL 0101 - INTRODUCTION TO CELL AND MOLECULAR BIOLOGY

## Minimum Credits: 4

Maximum Credits: 4
Designed for the student majoring in biology. Introduces basic concepts about cell structure and function, including the wide variety of macromolecules that play key roles in living systems. The genetic mechanisms by which hereditary information is passed down from one generation to the next will be discussed. Three hours of lecture and three hours of lab per week. Ge: life sciences
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Life Science

## BIOL 0102 - INTRODUCTION TO BIODIVERSITY

## Minimum Credits: 4

Maximum Credits: 4
Designed for the student majoring in biology. An evolutionary survey of organisms, including an introduction to structure and function of various organ systems. Three hours of lecture and three hours of lab per week. Ge: life sciences
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Life Science

## BIOL 0108 - PLANTS \& PEOPLE: INTRO ETHNOBTNY

## Minimum Credits: 3

Maximum Credits: 3
The value of plants to society is introduced along with a discussion of the plants as part of the natural world. The course will examine the uses of plants by many cultures, past and present, for food, timber, fuel, clothing, religious activities and medicine, among other uses. A basic introduction to
the anatomy and ecology of plants will also be covered.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Attributes: UPB Global General Ed. Requirement, UPB Life Sci. General Ed. Requirement
General Education: Life Sci-Global

## BIOL 0109 - PLANTS AND PEOPLE LAB

## Minimum Credits: 1

Maximum Credits: 1
Students will engage in hands-on activities to study the rich diversity and interesting aspects of plants from a scientific and societal perspective. This introductory laboratory course is appropriate for students in any major and can be taken independently of a biology lecture course.
Academic Career: Undergraduate
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis
Course Attributes: UPB Life Sci. General Ed. Requirement
General Education: Life Science

## BIOL 0112 - HUMAN BIOLOGY

## Minimum Credits: 3

Maximum Credits: 3
Designed for the nonmajor. General principles of genetics, biochemistry, anatomy, and physiology are illustrated with reference to normal human body functions. Topics are structured to allow the student to better appreciate contemporary issues and controversies. Three hours of lecture per week. Ge: life sciences
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Life Science

## BIOL 0118 - ECOLOGY AND ENVIRONMENTAL BIOLOGY

## Minimum Credits: 3

Maximum Credits: 3
Designed for the non-major. Basic principles of ecology are introduced along with a discussion of the complexity of environmental problems and their solutions. Three hours of lecture per week.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Life Science

## BIOL 0119 - ECOLOGY AND ENVIRONMENTAL BIOLOGY LABORATORY

## Minimum Credits: 1

Maximum Credits: 1
Laboratory will include field trips to various habitats in our region and analyses of environmental parameters. Three hours of lab per week.
Academic Career: Undergraduate
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis
General Education: Life Science

## BIOL 0197 - DIRECTED STUDY

Minimum Credits: 1
Maximum Credits: 6

Independent study in a topic in biology. Permission of the instructor is required.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

## BIOL 0202 - MICROBIOL FOR ALLIED HEALTH PROFESSIONALS

## Minimum Credits: 4

Maximum Credits: 4
Principles of medical microbiology and immunology. Control of infectious disease and host-parasite relationships will be emphasized using a systemic approach to the study of infectious disease.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## BIOL 0203-GENETICS

## Minimum Credits: 4

Maximum Credits: 4
Introduces the basic principles of inheritance including classical Mendelian Genetics, Molecular Genetics and Quantitative Genetics.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: BIOL 0101 w/ C- or better

## BIOL 0212 - HUMAN ANATOMY AND PHYSIOLOGY 1

## Minimum Credits: 3

Maximum Credits: 3
A study of the gross and microscopic anatomy, physiology, and homeostatic mechanisms of the human body, stressing the relationship of structure to function. This semester covers cell types and tissues and the cellular processes of osmosis, diffusion, and active and passive transport; the integumentary system; the skeletal system and joints and bone metabolism; the muscular system and mechanisms of muscular contraction; the nervous system, mechanism of nerve impulse conduction, and the special and somatic senses. Three hours of lecture per week.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: A\&P I Lab required (BIOL 0222)
Course Attributes: UPB Life Sci. General Ed. Requirement
General Education: Life Science

## BIOL 0213 - HUMAN ANATOMY AND PHYSIOLOGY 2

## Minimum Credits: 3

Maximum Credits: 3
A continuation of the study of human anatomy and physiology. This semester covers the cardiovascular system and regulation of heart rate, blood pressure and volume, blood typing, and exchange between blood and somatic cells; the respiratory system and mechanisms of acid-base balance; the endocrine system and the regulation of hormone action and release; the digestive system and control of digestive enzymes; the urinary system and electrolyte balance; the immune system, defense mechanisms, and the inflammatory process; nutrition and anabolic and catabolic processes; the reproductive system and its hormonal regulation; and growth and development. Three hours of lecture per week.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: A\&P II Lab required (BIOL 0223)
Course Attributes: UPB Life Sci. General Ed. Requirement
General Education: Life Science

## BIOL 0216 - CONTEMPORARY ISSUES IN BIOLOGY

## Minimum Credits: 3

Maximum Credits: 3
Designed for the non-major, this course covers scientific process and inquiry through a study of current biological topics. Students will evaluate biological discovery and consider its impact on society. Three hours of lecture per week.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Life Science

## BIOL 0217 - PRINCIPLES OF ECOLOGY AND EVOLUTION

## Minimum Credits: 4

Maximum Credits: 4
Introduces basic principles of ecology and evolution, in addition to basic principles of experimental design, sampling, and statistics. Topics that will be covered include organismal, population, and community ecological principles, and micro evolutionary and macro evolutionary processes.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: BIOL 0102 with a C- or better
General Education: Life Science

## BIOL 0222 - HUMAN ANATOMY AND PHYSIOLOGY LAB 1

## Minimum Credits: 1

## Maximum Credits: 1

A study of the gross and microscopic anatomy, physiology, and homeostatic mechanisms of the human body, stressing the relationship of structure to function. This semester covers cell types and tissues and the cellular processes of osmosis, diffusion, and active and passive transport; the integumentary system; the skeletal system and joints and bone metabolism; the muscular system and mechanisms of muscular contraction; the nervous system, mechanism of nerve impulse conduction, and the special and somatic senses. Three hours of lab per week.
Academic Career: Undergraduate
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis
Course Requirements: Corequisite: BIOL 0212

## BIOL 0223 - HUMAN ANATOMY AND PHYSIOLOGY LAB 2

## Minimum Credits: 1

Maximum Credits: 1
A continuation of the study of human anatomy and physiology. This semester covers the cardiovascular system and regulation of heart rate, blood pressure and volume, blood typing, and exchange between blood and somatic cells; the respiratory system and mechanisms of acid-base balance; the endocrine system and the regulation of hormone action and release; the digestive system and control of digestive enzymes; the urinary system and electrolyte balance; the immune system, defense mechanisms, and the inflammatory process; nutrition and anabolic and catabolic processes; the reproductive system and its hormonal regulation; and growth and development. Three hours of lab per week.
Academic Career: Undergraduate
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis
Course Requirements: Corequisite: BIOL 0213

## BIOL 1301 - ANIMAL BEHAVIOR

## Minimum Credits: 3

Maximum Credits: 3
An advanced study of the mechanisms, development, and functions of animal behaviors. We review the history of the study of animal behavior, and then examine various approaches to studying behavior, including genetics, neurobiology and endocrinology. We then look at animal survival
mechanisms, like foraging, detecting prey, and using camouflage. Last, we cover interactions between animals: how they mate, raise their young, communicate, fight, and cooperate.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREREQ: BIOL 0102 \& UL

## BIOL 1302-MICROBIOLOGY

## Minimum Credits: 4

Maximum Credits: 4
Principles of microbiology and immunology including the morphology, physiology, taxonomy, genetics and ecology of micro-0rganisms. Viruses, prokaryotes and eukaryotic micro organisms including algae, fungi and protozoa will be studied.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: UL \& BIOL 0101 \& BIOL 0102

## BIOL 1306 - NEUROBIOLOGY

## Minimum Credits: 4

## Maximum Credits: 4

The biology of nervous systems will be studied at various levels, including the cellular and molecular biology of neurons, sensory systems, motor control, and higher cortical functions in humans. All topics are viewed across phyla and from an evolutionary perspective. The course will emphasize scientific reading and oral communication of scientific material. Three hours of lecture and four hours of lab per week.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101 , ENG 0102 , FS 0102 , and the MATH competency

## BIOL 1307 - BIOSTATISTICS

## Minimum Credits: 2

## Maximum Credits: 2

Introduces basic experimental design, sampling procedures and statistical analysis in biological sciences.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0104 (or FS 0102), and the MATH competency

## BIOL 1308 - FIELD BOTANY

## Minimum Credits: 4

## Maximum Credits: 4

Introduction to vascular plant taxonomy, identification and classification, with particular emphasis on learning characteristics of plant families, field identification and recognizing indicator species of various plant habitats.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## BIOL 1310 - ANIMAL PHYSIOLOGY

Minimum Credits: 3
Maximum Credits: 3

This course provides an introduction to animal structure and function. Basic mechanisms of physiology related to major systems will be covered, including neurobiology, endocrinology, movement, circulation, gas exchange, digestion, and ionic and osmotic balance. The course will use a comparative approach that emphasizes how physiological differences among species have evolved based upon the need for the animal to adapt to the environment. Three hours of lecture per week. Prerequisites BIOL 0101 and 0102.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: UL \& BIOL 0101 \& BIOL 0102

## BIOL 1311 - ENTOMOLOGY

Minimum Credits: 4
Maximum Credits: 4
Insects are the most diverse taxonomic group on the planet. This course will cover the insects and their close relatives; physiology; external and internal structures; life cycles; classification of insects to order; ecology in the field, forest, and aquatic habitats; economic and medical importance of orders.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: UL \& BIOL 0101 \& BIOL 0102

## BIOL 1312-GLOBAL ECOLOGY

## Minimum Credits: 3

Maximum Credits: 3
This course will expand on community and ecosystem scale patterns and processes, and their application at the global scale. The course will emphasize understanding these ecological processes and emergent patterns in the context of exponential growth of human populations, coupled with the subsequent and inevitable environmental issues. Some of the topics we will consider include demands on resources, sustainable agriculture and development, pollution, and global warming. This course will require regular reading of the primary literature coupled with in-class discussions.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREREQ: BIOL 0102, 0217 \& UL

## BIOL 1313 - AQUATIC BIOMONITORING

## Minimum Credits: 4

Maximum Credits: 4
In this combined lecture and lab/field course, students will learn the skills needed to monitor water quality in streams of the Allegheny National Forest. Students will learn principles of stream ecology and water quality while applying their knowledge and skills in the field on an research study. A hands-on course, students will have an opportunity to experience a field-research course in the wilderness of the Allegheny National Forest, trekking off trail to sample streams, aquatic insect sampling and identification. Prerequisites: BIOL 0101 and 0102 , completion of competency courses
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: UL \& BIOL 0101 \& BIOL 0102

## BIOL 1314 - ANIMAL PHYSIOLOGY LAB

## Minimum Credits: 1

## Maximum Credits: 1

This lab accompanies BIOL 1310 Animal Physiology lecture. We begin by reviewing animal taxonomy, biochemistry, and cell signaling and movement. We then examine sensory systems, the central nervous system, circulation, respiration, urination, digestion, and reproduction. All topics are viewed from an evolutionary perspective. Students will use common lab equipment such as scales, pH meters and microscopes, perform tissue dissections, and collect pulse, muscle force, EKG, and respiratory data using ADInstruments recording devices. Data will be plotted using EXCEL.

Four hours of lab per week.
Academic Career: Undergraduate
Course Component: Laboratory
Grade Component: LG/SNC Elective Basis
Course Requirements: Co-req: BIOL 1310

## BIOL 1316 - BIOMEDICAL ENGINEERING

## Minimum Credits: 1

## Maximum Credits: 1

A seminar course that will cover current topics in biomedical engineering, including biomaterials, imaging and optics, cardiovascular, neural and respiratory bioengineering, as well as orthopedic and rehabilitation engineering.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: Eng 0101, 0102, FS 0102 and MATH 0098 or higher and completion of BIOL 0101 and 0102.

## BIOL 1317 - DATA SCIENCE IN BIOLOGY

## Minimum Credits: 3

Maximum Credits: 3
Introduces students to topics related to the management, analysis, and visualization of data in the biological sciences. In addition to instruction in data collection, storage, manipulation, and analysis, the course will also cover ethical issues surrounding data collection and documentation in biological sciences. Advanced topics will be presented that are relevant across the biological discipline, including health and the environment through hands-on interactions with datasets. This course requires considerable computer usage for class activities.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: UL \& BIOL 0101 \& BIOL 0102

## BIOL 1320 - CELL BIOLOGY

## Minimum Credits: 3

Maximum Credits: 3
Cell structure and function are examined emphasizing energy flow, synthesis of biological macromolecules, cell reproduction, molecular genetics, and signal transduction mechanisms. Scientific writing and critical thinking will be emphasized. Pre-requisite: BIOL 0101, 0203, competencies and corequisite: CHEM 0102
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prereq: BIOL 101\&203 Coreq: CHEM 102

## BIOL 1321 - CELL BIOLOGY LAB 1 CREDIT

## Minimum Credits: 1

Maximum Credits: 1
Academic Career: Undergraduate
Course Component: Laboratory
Grade Component: LG/SNC Elective Basis
Course Requirements: BIOL 1320

## BIOL 1401 - DEVELOPMENTAL BIOLOGY

Minimum Credits: 3
Maximum Credits: 3
The development of animals and plants will be studied. The course will examine both the embryological changes occurring during development, as
well as the genetic, cellular, and molecular mechanisms that drive these changes. The development of the major model organisms will be emphasized, as well as a discussion of techniques used in modern developmental biology labs. Three hours of lecture per week. Prerequisite: BIOL 0203.

Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prereq:BIOL 0203 \& competency

## BIOL 1402 - MOLECULAR BIOLOGY

## Minimum Credits: 3

Maximum Credits: 3
The molecular mechanisms of prokaryotic and eukaryotic cell function will be studied, emphasizing molecular genetics, protein function, and genomics. The experimental methods used to research cellular and molecular phenomena will be highlighted. Skills in the reading of primary scientific literature and scientific writing will be developed. Three hours of lecture per week. Prerequisite: BIOL 0203.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prereq:BIOL 0203 \& competency

## BIOL 1405 - POPULATION AND CONSERVATION BIOL

## Minimum Credits: 4

Maximum Credits: 4
Introduces population analysis and genetics through a conservation biology approach. In addition to basic population-level topics such as demography, mating systems and life histories, students will also consider what maintains population viability, the concept of meta populations and the issues surrounding conserving biodiversity.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: BIOL 0217 is a prerequisite for this course

## BIOL 1409 - GENOMICS AND BIOINFORMATINCS LAB

## Minimum Credits: 1

Maximum Credits: 1
This is a computational lab that accompanies BIOL 1410. In the lab, students practice with different computational tools and databases to solve biological problems related to genes, genomes and proteins, including structure and function, development and disease
Academic Career: Undergraduate
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis
Course Requirements: CREQ: BIOL 1410

## BIOL 1410 - GENOMICS AND BIOINFORMATICS

## Minimum Credits: 3

Maximum Credits: 3
This course provides an understanding of genomics and proteomics as well as a foundation in bioinformatics analysis. Genomics seeks to explain information flow within cells and how genes are encoded, expressed, or regulated in cells, tissues and organisms. We will study gene function and activity and how scientists currently study the genome to provide answers to critical biological questions. Through Bioinformatics, we will learn how to use databases and algorithms to analyze genes, proteins and the entire genome of an organism. Combining these techniques, we can uncover the underlying mechanisms of biochemical pathways, disease processes, and evolution. Students will also develop critical thinking and communication skills by reading and analyzing original scientific articles and through weekly class presentations.
Academic Career: Undergraduate
Course Component: Lecture

## BIOL 1411 - DEVELOPMENTAL BIOLOGY LAB

## Minimum Credits: 1

Maximum Credits: 1
In this lab course, students will study the development of many of the major model organisms used in developmental biology. They will learn to identify the anatomical structures of both vertebrate and invertebrate embryos at different developmental stages by examining both whole mounts and serial section slides. They will also have a chance to study developmental and regenerative processes in living invertebrates, such as Drosophila, C. elegans, and Planaria, as well as utilize databases that specialize in developmental biology bioinformatics.
Academic Career: Undergraduate
Course Component: Laboratory
Grade Component: LG/SNC Elective Basis
Course Requirements: Prereq; BIOL 1401

## BIOL 1412 - MOLECULAR BIOLOGY LAB

## Minimum Credits: 1

Maximum Credits: 1
In this lab course, students will learn how to carry out modern molecular laboratory techniques. The techniques will include DNA extraction, DNA transformation, creation of recombinant DNA molecules, gel electrophoresis, polymerase chain reaction (PCR), blotting techniques, and the use of databases that specialize in molecular bioinformatics. Four hours of lab per week.
Academic Career: Undergraduate
Course Component: Laboratory
Grade Component: LG/SNC Elective Basis

## BIOL 1430 - ECOLOGY

## Minimum Credits: 3

Maximum Credits: 3
Introduction to the interactions of organisms with the living and non-living environment. Basic ecological principles of populations, communities, and ecosystems will be covered. Topics will include physiological ecology, population growth, interspecific interactions such as mutualism and predation, community and ecosystem structure and diversity. PREREQ: BIOL0217.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: BIOL 0217 is a prerequisite for this course

## BIOL 1431-ECOLOGY LAB

Minimum Credits: 1
Maximum Credits: 1
In this lab course, students will learn field and laboratory techniques to study population, community, and landscape ecology using modern techniques. This will include but not be limited to quantitative methods such as sampling methodology, statistical analysis, computer simulations to understand population, community, and landscape ecology. Critical thinking and data interpretation will be emphasized.
Academic Career: Undergraduate
Course Component: Laboratory
Grade Component: LG/SNC Elective Basis
Course Requirements: Prereq: BIOL 1430

## BIOL 1435 - EVOLUTION

## Minimum Credits: 3

Maximum Credits: 3
This course covers the evidence, theory, and mechanisms of evolutionary change in populations. Topics will include adaptation, selection, co-
evolution, speciation, molecular evolution, and an introduction to phylogenetics. Three hours of lecture per week.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: BIOL 101,102,203,217 \& competency courses

## BIOL 1440 - CANCER BIOLOGY

## Minimum Credits: 3

Maximum Credits: 3
Discovering a cure for cancer has been one of the most difficult challenges for modern biomedical science. This class will discuss what causes cancer, what makes cancer cells different from normal cells, and what avenues for the future treatment of cancer look promising. The scientific process and a discussion of experimental techniques used in modern cancer research will be emphasized.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: BIOL 0101 and 0203

## BIOL 1447 - TOPICS IN BIOLOGY 1 CREDIT LECTURE

## Minimum Credits: 1

Maximum Credits: 1
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101 , ENG 0102 , FS 0102 , and the MATH competency

## BIOL 1448 - TOPICS IN BIOLOGY 2 CREDIT LECTURE

Minimum Credits: 2
Maximum Credits: 2
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## BIOL 1449 - SPECIAL TOPICS IN BIOLOGY LABORATORY

Minimum Credits: 1
Maximum Credits: 1
Academic Career: Undergraduate
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0104 (or FS 0102), and the MATH competency

## BIOL 1450 - TOPICS IN BIOLOGY

Minimum Credits: 3
Maximum Credits: 3
The advanced study of a special topic in biology.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: UL \& BIOL 0101 \& BIOL 0102

## BIOL 1451 - CAPSTONE: BIOLOGY

## Minimum Credits: 2

Maximum Credits: 2
A culminating course intended for students nearing graduation. Involves reading primary literature from the diverse sub disciplines of biology and making connections among these and other fields of science. This course enhances scientific writing skills, oral communication and research methods. It involves student-led presentation of published, primary literature on a biological topic of the student's interest. Students will acquire a greater competence in writing in an advanced, scientific format and synthesizing material from diverse disciplines. Two hours of lecture per week.
Academic Career: Undergraduate
Course Component: Seminar
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0104 (or FS 0102), and the MATH competency

## BIOL 1494 - UNDERGRADUATE FACULTY ASSISTANT

## Minimum Credits: 1

Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit

## BIOL 1497 - DIRECTED STUDY: BIOLOGY

## Minimum Credits: 1

Maximum Credits: 6
Limited to graduating seniors. Permission of the program director and biology faculty supervisor (may not be repeated for credit).
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## BIOL 1498 - DIRECTED RESEARCH: BIOLOGY

## Minimum Credits: 1

Maximum Credits: 6
Students gain research experience by helping to design and carry out a research project mutually agreed upon by the student and biology faculty supervisor. Every semester. Maximum of 6 credits counted toward biology major.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## BIOL 1499 - INTERNSHIP: BIOLOGY

## Minimum Credits: 1

## Maximum Credits: 6

Students gain practical experience in biology in a professional setting. Work is directed by the employer and evaluated jointly with the faculty supervisor. Specific requirements are: 45 hours at the intern site per unit of credit earned; a student-kept daily time log and journal of activity; formal oral presentation to biology faculty and students upon completion of the activity; and a confidential, written evaluation by the on-site supervisor to the biology faculty supervisor. Every semester. Maximum of 6 credits counted toward biology major.
Academic Career: Undergraduate

## Civil Engineering

## CE 0109 - COMPUTER METH IN CIVIL ENGRG 1

## Minimum Credits: 3

Maximum Credits: 3
An introduction to the use of computers in civil engineering. Topics covered include: personal computers; the mainframe system; word processing; spreadsheets; graphics; cad system; numerical analysis; and civil engineering software packages.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: ENGR 0016 and MATH 0140 and PHYS 0201

## Chemical Engineering

## CHE 0035 - INTRODUCTRY CHEMICAL ENGINEERING

## Minimum Credits: 4

Maximum Credits: 4
The principles of conservation of mass and energy are applied to the analysis of chemical processes. Included are material balance for multiple unit processes with recycle, p-v-t properties of gases and gas-vapor mixtures, thermochemistry, combined material and energy balances, and vapor-liquid equilibrium.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SU3 Elective Basis
Course Requirements: PREQ: CHEM 0101 and MATH 0140 and PHYS 0201 and ENGR 0016

## CHE 0036 - CHEMCL ENGRNG THERMODYNAMICS 1

## Minimum Credits: 3

Maximum Credits: 3
Development of the laws of thermodynamics using a macroscopic approach. Fundamental concepts are stressed. Emphasis is placed on chemical engineering applications in problem recitation sessions. Concepts of work, heat, internal energy, potential energy, kinetic energy, enthalpy, entropy, and free energy are developed. Thermodynamic properties and equations of state are defined.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SU3 Elective Basis
Course Requirements: PREQ: CHEM 0101 and MATH 0150 and PHYS 0202

## CHE 1008 - INTRODCTN TO STAGED SEPARATIONS

[^1]
## Chemistry

## CHEM 0089-CONCEPTS OF CHEMISTRY

## Minimum Credits: 3

Maximum Credits: 3
This course is designed for non-majors or students intending to take CHEM 0101 and CHEM 0102 who require additional preparation. The course emphasizes stoichiometry (chemical calculations), chemical equations, gas laws, elementary atomic structure, molecular structure, and periodic properties of elements.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Attributes: UPB Physical Science General Ed. Requirement
General Education: Physical Science

## CHEM 0101 - GENERAL CHEMISTRY 1

Minimum Credits: 4
Maximum Credits: 4
The basic principles of chemistry: atomic and molecular structure, stoichiometry, and the general properties of gases, liquids, and solids. The lab emphasizes the basic techniques in quantitative study of chemical processes.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Physical Science

## CHEM 0102-GENERAL CHEMISTRY 2

Minimum Credits: 4
Maximum Credits: 4
A continuation of chemistry 0101 emphasizing thermodynamics, chemical equilibrium, and rate processes.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Physical Science

## CHEM 0103-BIOLOGICAL CHEMISTRY

Minimum Credits: 4
Maximum Credits: 4
A survey of inorganic chemistry, and carbohydrate, lipid, and protein chemistry. The course covers atomic structure, properties of matter, nature of chemical bonds and valence, chemical reactions and equlibria, acid-base and oxidation reduction reactions, elementary radiochemistry and some chemical arithmetic.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Attributes: UPB Life or Physical Sci. General Ed. Requirement
General Education: Life or Physical Sci

## CHEM 0106 - CHEMISTRY OF THE ENVIRONMENT

## Minimum Credits: 3

Maximum Credits: 3
A global view of the environment and its impact on our changing way of life is presented. How chemistry works and how chemistry is interconnected with other areas of life are studied. Environmental and resource problems and possible solutions are examined. Accurate and up-to-date material is
presented using scientific analysis and mathematics.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Physical Science

## CHEM 0107-CHEMISTRY OF THE ENVRN - LAB

## Minimum Credits: 1

Maximum Credits: 1
A laboratory course designed to augment and clarify the concepts presented in chem-0106. Real world environmental studies with a chemical basis are stressed. Includes field trips to establishments with an environmental concern and analysis of aqueous samples from natural settings.
Academic Career: Undergraduate
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis
General Education: Physical Science

## CHEM 0186-INTRODUCTION TO FUELS

Minimum Credits: 1
Maximum Credits: 1
This is an introductory laboratory course with focus on the preparation, characterization, and testing of selected solid and liquid fuels.
Academic Career: Undergraduate
Course Component: Credit Laboratory
Grade Component: Letter Grade
General Education: Physical Science

## CHEM 0187 - DRUGS AND SOCIETY

## Minimum Credits: 3

Maximum Credits: 3
The course intended for non-science majors provides facts about drug sources, history, action in the body, side-effects, interactions; tolerance, abuse potential, dependency; drug delivery systems and alternatives will be covered. All major classes of drugs will be covered.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Physical Science

## CHEM 0188 - DRUGS AND SOCIETY LAB

Minimum Credits: 1
Maximum Credits: 1
May be taken concurrently with CHEM 0187. Students will be introduced to instrumentation used by medical chemistry and forensic scientists and will be instructed in the synthesis of drugs (e.g., Aspirin). A field trip to the New York state Crime Lab (Olean, NY) will be scheduled.
Academic Career: Undergraduate
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis
General Education: Physical Science

## CHEM 0189 - INTRODUCTION TO BIOFUELS

Minimum Credits: 3
Maximum Credits: 3
An introduction lecture/lab course involving 'biodiesel fuels' with emphasis on practical aspects of this renewable resource which contributes to the new 'energy economy.' Lecture covers introductory aspects of the fuel, economics, global distribution, feedstock types and lab focuses on biodiesel processing and characterization.

Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Physical Science

## CHEM 0197 - DIRECTED STUDY

Minimum Credits: 1
Maximum Credits: 6
Independent study in a topic in chemistry.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

## CHEM 0201 - INTRODUCTION TO ANALYTICAL CHEMISTRY

## Minimum Credits: 4

## Maximum Credits: 4

Evaluation of analytical data, quantitative and qualitative analysis, gravimetric analysis, volumetric analysis, precipitation titration, neutralization titration, oxidation-reduction analysis, potentiometric methods, spectroscopic methods, chromatography, and fundamental methods of analysis used by all chemists in research.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## CHEM 0206 - ORGANIC CHEMISTRY 1

## Minimum Credits: 3

## Maximum Credits: 3

The chemistry of carbon compounds with emphasis on the methods of preparation and the characteristic properties and reactions of the important classes of organic compounds.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: Completion of CHEM 0102 is required
General Education: Physical Science

## CHEM 0207 - ORGANIC CHEMISTRY 1 LAB

## Minimum Credits: 1

Maximum Credits: 1
Laboratory techniques illustrating fundamental procedures used by organic chemists will be introduced. These techniques include distillation, recrystallization, and extraction. The computer component of the lab includes structure drawing, 3-d visualization, and conformational analysis.
Academic Career: Undergraduate
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis
General Education: Physical Science

## CHEM 0208 - ORGANIC CHEMISTRY 2

## Minimum Credits: 3

Maximum Credits: 3
A continuation of CHEM 0206 emphasizing reactions, syntheses, mechanisms, and intercoversions of more complicated organic molecules. Organic synthesis and analysis are emphasized in lab.
Academic Career: Undergraduate
Course Component: Lecture

## CHEM 0209- ORGANIC CHEMISTRY 2 LAB

## Minimum Credits: 1

Maximum Credits: 1
A continuation of techniques from organic chemistry 1 lab, including synthesis of target molecules. The computer component includes spectroscopy and molecular modeling, which includes energetics and mechanism.
Academic Career: Undergraduate
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis
General Education: Physical Science

## CHEM 0240 - INTRO TO EVIDENCE ANALYSIS

## Minimum Credits: 3

Maximum Credits: 3
This course introduces students to commonly used forensic techniques such as microscopy, spectroscopy and chromatography. Scientific background uses and limitations of the techniques are discussed. Prerequisites CHEM 0101 and BIOL 0101.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Pre Req: CHEM 0101 \& BIOL 0101

## CHEM 1301 - PHYSICAL CHEMISTRY 1

## Minimum Credits: 4

Maximum Credits: 4
Fundamental concepts of physical chemistry including the structure of matter, principles and application of thermodynamics, chemical equilibria, phase rule, reaction rates, and electrochemistry.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## CHEM 1302 - PHYSICAL CHEMISTRY 2

Minimum Credits: 4
Maximum Credits: 4
A study of solutions, reaction rates, chemical bonds, quantum mechanics, and spectroscopy.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## CHEM 1304 - ORGANIC ANALYSIS

Minimum Credits: 3
Maximum Credits: 3
An introduction to spectroscopic methods and instrumentation used by organic chemists for structure determination.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0104 (or FS 0102), and the MATH competency

## CHEM 1305 - ANALYTICAL INSTRUMENTATION

## Minimum Credits: 4

Maximum Credits: 4
Technical training in potentiometric methods, conductometric methods, electrolytic methods, absorption spectroscopy, flourescence spectroscopy, atomic absorption, and performance chromatography.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## CHEM 1306-BIOCHEMISTRY

Minimum Credits: 3
Maximum Credits: 3
The chemistry of living systems: proteins, enzymes, lipids, sugars, nucleic acids, biosynthesis, and energetics.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101 , ENG 0102, FS 0102 , and the MATH competency

## CHEM 1308 - ENVIRONMENTAL CHEMISTRY

Minimum Credits: 4
Maximum Credits: 4
A comprehensive overview of the chemistry of the atmosphere, hydrosphere, and terrestrial environment that includes ozone depletion, global warming, pollution, energy sources for the future, and green chemistry. In the lab component water and soil samples will be analyzed using techniques such as titration, pH determination, spectrophotometry, and chromatography. Three hours of lecture and four hours of lab per week. Prerequisite CHEM 0102 and competencies.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PreReq CHEM 0102 and competencies

## CHEM 1312-ADVANCED BIOCHEMISTRY

## Minimum Credits: 4

Maximum Credits: 4
A continuation of biochemistry (CHEM 1306) with emphasis on peptide, nucleotide synthetic methodology. Further treatment of metabolic processes and oxidative phosphorylation. Laboratory will focus on basic research techniques such as electrophoresis, gel permeation chromatography, and enzyme kinetics.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## CHEM 1317 - INTRODUCTION TO SCIENTIFIC COMPUTATION

## Minimum Credits: 3

Maximum Credits: 3
An introduction to scientific programming with the Python language and the use of computational mean-field, stochastic, dynamical, and statistical methods in the physical and life sciences. Prerequisite MATH 0201.GE Computational Sciences
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prereq: MATH 0201 \& competency

## CHEM 1435 - INTERPRETATION OF MASS SPECTRA

## Minimum Credits: 3

Maximum Credits: 3
This course introduces students to the determination of molecular structure using mass spectrometry. Topics include isotopes, molecular ion determination, and fragmentation via unimolecular decomposition.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: CHEM 0208

## CHEM 1437 - TOPICS IN INORGANIC CHEMISTRY

## Minimum Credits: 3

Maximum Credits: 3
This course examines the effects of structure and bonding on chemical properties and the application of periodic relationship to selected families of elements. Topics include synthesis, stereochemistry, and spectroscopy or inorganic compounds.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: CHEM 0208 AND 1301

## CHEM 1451-CAPSTONE: CHEMISTRY

## Minimum Credits: 2

Maximum Credits: 2
A yearlong project supervised by a member of the chemistry faculty. Two credits the first semester and two credits the second. The first semester will consist of class meetings to introduce students to searching the chemical literature, gathering of references relating to the student's project, and conducting any laboratory work necessary to the completion of the project. The second semester will be spent writing and editing an extensive paper using ACS format and conducting an oral presentation of the research. Ge capstone, upper level writing.
Academic Career: Undergraduate
Course Component: Seminar
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## CHEM 1455-TOPICS IN CHEMISTRY

## Minimum Credits: 3

Maximum Credits: 3
The advanced study of a special topic in chemistry.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0104 (or FS 0102), and the MATH competency

## CHEM 1494 - UNDERGRADUATE FACULTY ASSISTANT

Minimum Credits: 1
Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: Undergraduate

## CHEM 1497 - DIRECTED STUDY: CHEMISTRY

Minimum Credits: 1
Maximum Credits: 6
Directed study in a specific area of chemistry. Permission of the instructor is required.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## CHEM 1498 - DIRECTED RESEARCH: CHEMISTRY

Minimum Credits: 1
Maximum Credits: 6
Independent work on a chemistry project supervised by a member of the chemistry faculty.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## CHEM 1499 - INTERNSHIP: CHEMISTRY

Minimum Credits: 1
Maximum Credits: 6
Practical experience in chemistry in a professional setting. Work is directed by the employer and evaluated jointly with the faculty supervisor.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## Computer Information Systems and Technology

## CIST 0150 - FUNDAMENTALS OF PROGRAMMING

## Minimum Credits: 3

## Maximum Credits: 3

The course is designed to provide the student with an adequate understanding of programming concepts and principles to enable the student to design and implement programs for his or her own use or use in the classroom.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## CIST 0161 - THE TECHNOLOGY OF COMPUTING

[^2]
## Minimum Credits: 3

Maximum Credits: 3
The concepts of web programming. Prominently featured are the extensible markup language ( xml ) and java server pages (JSP). Both client-side and server-side scripting through web database access will be introduced. Assignments will focus developing skills using xml and expandable form in web page design.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## CIST 0165 - NETWORKING 1

## Minimum Credits: 3

Maximum Credits: 3
Networking i builds a deeper understanding of how networks work, including the topics of lans, wans, service providers, packets, hubs, routers, switches, internet protocols routing and switching and the physical layer.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## CIST 0166 - NETWORKING 2

## Minimum Credits: 3

Maximum Credits: 3
Networking ii builds upon the basic networking concepts provided in networking i by adding the ideas of networking security to the discussion. Concepts covered include: cryptography, key algorithms, firewalls, wireless and mobile security and internet security.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: CIST 0165 (NETWORKING 1)

## CIST 0197 - DIRECTED STUDY IN COMPUTER INFORMATION SYSTEMS AND TECHNOLOGY

## Minimum Credits: 1

Maximum Credits: 6
Independent study in a topic in computer information systems and technology.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

## CIST 0201 - INTERMEDIATE PROGRAMMING USING JAVA

## Minimum Credits: 3

Maximum Credits: 3
This course is a rigorous introduction to the fundamental concepts and techniques of computer programming using the Java programming language. It provides a solid background in good object-oriented programming techniques and introduces terminology in an incremental manner. Students will learn to build useful programs while learning the basics of structured and object-oriented programming techniques. Students are expected to have previous programming experience, including variables, expressions, control statements (loops and conditions), arrays, methods or functions and more.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: CIST 0150

## Minimum Credits: 3

Maximum Credits: 3
This course is a rigorous introduction to the fundamental concepts and techniques of computer programming using the Java programming language. It provides a solid background in good object-oriented programming techniques and introduces terminology in an incremental manner. Students will learn to build useful programs while learning the basics of structured and object-oriented programming techniques. Students are expected to have previous programming experience, including variables, expressions, control statements (loops and conditions), arrays, methods or functions and more.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## CIST 0261 - COMPUTER SECURITY

## Minimum Credits: 3

Maximum Credits: 3
This course is an introduction to the concepts of data security, including policies, attacks, vulnerabilities, encryption, information states, and forensics.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## CIST 0262 - SYSTEMS ADMINISTRATION

## Minimum Credits: 3

Maximum Credits: 3
This course focuses on those skills and concepts essential to the administration of computing systems, networks, software, file systems, web systems, database systems, and system documentation, policies and procedures. This also includes education and support of the users of these systems.
Laboratory sessions will consist of demonstrations and hands-on work in this area.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: CIST 0161 and 0165

## CIST 0265 - OBJECT ORIENTED PROGRAMMING

## Minimum Credits: 3

Maximum Credits: 3
This course provides students an opportunity to further develop and refine their programming skills. In particular, the emphasis of this course is on the organization of information, the implementation of common data structures such as lists, stacks, queues, trees, and graphs, and techniques of data abstraction, including encapsulation and inheritance. Prerequisites: cist 0150
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: CIST 0150

## CIST 1301 - ADVANCED WEB DEVELOPMENT

## Minimum Credits: 3

Maximum Credits: 3
This course focuses on building interactive web sites and web applications. Emphasis is placed on database connectivity, web standards, and separation of code into presentation, persistence, and processing layers. Css and javascript will be used to create a proper presentation layer. To handle processing and persistence, ruby on rails, along with the mysql database server will be used.
Academic Career: Undergraduate
Course Component: Lecture

## CIST 1307 - DATABASE DESIGN AND MANAGEMENT

## Minimum Credits: 3

Maximum Credits: 3
The structure, use, and design of database management systems (dbms) architecture. Topics include basic concepts and discussion of database models, data sublanguages, and user-oriented query languages. Management issues such as the role of the db administrator, data security, and recovery are also discussed.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## CIST 1310 - SYSTEMS ANALYSIS AND DESIGN

## Minimum Credits: 3

Maximum Credits: 3
Students are introduced to the basic concepts, methodologies, and tools used by systems analysts in the development of new information systems. Topics include problem-solving methods, system investigation, analysis, logical design, system maintenance, team dynamics, and data collection techniques and procedures.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: UL and CIST 0265

## CIST 1311 - ELECTRONIC COMMERCE

## Minimum Credits: 3

Maximum Credits: 3
Electronic commerce will be studied using cases, lectures, readings, and internet site evaluations. Student teams will give presentations analyzing individual web sites, including a detailed analysis and evaluation of the business model being used.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## CIST 1325 - INTRODUCTION TO SUPPLY CHAIN MANAGEMENT

## Minimum Credits: 3

Maximum Credits: 3
Supply chain management is about the management of material and information flows in multistage production-distribution networks. Driven by fierce global competition and enabled by advanced information technology, many companies have taken initiatives to reduces costs and at the same to increase responsiveness to changes in the marketplace. This course will provide students with the knowledge and the tools necessary to develop, implement, and sustain strategies for managing supply chain issues.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## CIST 1326 - DIGITAL FORENSICS

## Minimum Credits: 3

Maximum Credits: 3
This course introduces students to the techniques and tools of computer forensics investigations. Students will receive step-by-step explanations on
how to use the most popular forensic tools and understand where potential evidence can be uncovered. Topics will focus on Windows forensics and include coverage of the latest technology. Many hands-on activities are included, which allow students to practice skills as they are learned. Prerequisite CIST 0261
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: UL \& CIST 0261

## CIST 1327-INTRUSION DETECTION \& INCIDENT RESPONSE

## Minimum Credits: 3

## Maximum Credits: 3

In this course you will learn what it takes to be prepared for that intrusion, what it takes to detect the intrusion, and eradicate it. Key topics include Introduction of Intrusion Detection \& Protection, and Incident Response Concepts, Familiarity with common IPS, IDS and IR approaches and their applications, Understanding of practical aspects of implementing and managing Intrusion Protection, Detection Systems, and Familiarity with the Operations of effective Incident Response Processes and Organizations. Pre-requisite CIST 0261
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: UL \& CIST 0261

## CIST 1328 - NETWORK SECURITY \& CRYPTOGRAPHY

## Minimum Credits: 3

Maximum Credits: 3
This course provides students with in-depth knowledge of network security and cryptography. Topics include network security, architectures and protocols of security services, basic cryptographic concepts, authentication mechanisms, and securing network systems and applications.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: UL \& CIST 0261

## CIST 1341 - LINUX OPERATING SYSTEM

## Minimum Credits: 3

Maximum Credits: 3
This course covers use of the Linux operating system running in a desktop computer environment. It provides an introduction to the installation, configuration, troubleshooting and use of this popular Open Source software. Topics include the Gnome and KDE graphical desktop, working within the bash shell and understanding Linux file system structure including directories, files, file ownership and permissions. Students will learn how to find and install additional packages and system software updates using the utilities provided by the platform. It also covers the Open Source Software movement in general and its importance in the IT world. Pre-requisite: CIST 0262
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: UL \& CIST 0262

## CIST 1342-HOST SCRIPTING

## Minimum Credits: 3

Maximum Credits: 3
Process automation is a vital skill for system administrators freeing them from routine tasks and allowing them to focus on more important functions. This course will introduce students to the Batch, Perl, and PowerShell scripting languages. Standard programming methodologies such as variables, arrays, and functions will be learned in the context of automating routine tasks including user, share, logging, data, database, and server management. The strengths and weaknesses of each scripting language will be discussed as well as when scripting is and is not appropriate.
Academic Career: Undergraduate
Course Component: Lecture

## CIST 1344 - VIRTUALIZATION \& CLOUD TECHNOLOGY

## Minimum Credits: 3

Maximum Credits: 3
This course presents a working knowledge on concepts of virtualization of servers/storage with introduction to cloud computing. The described technologies provide the basis for green computing, server consolidation and disaster recovery. Several aspects of virtualization and cloud computing are accompanied by practical applications and examples of utilization in the IT industry. Design, deployment and management of data centers including utilization of open-source systems are analyzed and organized into guidance materials.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: UL \& CIST 0262

## CIST 1400 - POLICY AND COMPLIANCE IN CYBERSECURITY

## Minimum Credits: 3

Maximum Credits: 3
The course will review ethics, privacy and security as it relates to cybersecurity as well as resulting laws and policies such as: HIPAA (the Health Insurance Portability and Accountability Act), Sarbanes-Oxley (aka SoX) and Payment Card Industry Data (PCI) Data Security Standard. Students will gain an understanding of these policy requirements, their genesis and will gain insight into their cybersecurity implications. Students will learn how these standards are addressed in commercial environments to properly assure compliance and protect data/information.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0104 (or FS 0102), and the MATH competency

## CIST 1400 - POLICY AND COMPLIANCE IN CYBERSECURITY

## Minimum Credits: 3

## Maximum Credits: 3

The course will review ethics, privacy and security as it relates to cybersecurity as well as resulting laws and policies such as: HIPAA (the Health Insurance Portability and Accountability Act), Sarbanes-Oxley (aka SoX) and Payment Card Industry Data (PCI) Data Security Standard. Students will gain an understanding of these policy requirements, their genesis and will gain insight into their cybersecurity implications. Students will learn how these standards are addressed in commercial environments to properly assure compliance and protect data/information.

## Academic Career: Undergraduate

Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## CIST 1401 - INFORMATION ASSURANCE

## Minimum Credits: 3

## Maximum Credits: 3

This course focuses on the understanding, application, and management of information assurance and survivability in computing, communication, and organizational systems. Information assurance includes operational issues, policies and procedures, risk analyses, recovery, and disaster planning. There will some emphasis on preparing and presenting information assurance to corporate audiences.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101 , ENG 0102 , FS 0102 , and the MATH competency

## Minimum Credits: 3

Maximum Credits: 3
This course provides an introduction to business intelligence and analytics, including the processes, methodologies, infrastructure, and current practices used to transform business data into useful information and support business decision-making. This course will review logical data models for both relational database systems and data warehouses. Students will learn to extract and manipulate data from these systems using Structured Query Language (SQL). This course covers visualization, reporting, and dashboard design with experiential learning using leading industry applications, including Excel PivotTables, relational database management systems, dimensional modeling and data visualization tools.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## CIST 1408 - PROJECT MANAGEMENT IN INFORMATION TECHNOLOGY

## Minimum Credits: 3

Maximum Credits: 3
This course provides a comprehensive approach to project management within the context of information technology. The course addresses the culture, principles, and basic techniques of managing technical projects. Basic tools of project management, such as work breakdown structure, scheduling, contracting, cost analysis, and risk management, are explained and demonstrated.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: UL and CIST 1310

## CIST 1415 - DATA ANALYTICS

## Minimum Credits: 3

Maximum Credits: 3
Data mining seeks to provide the tools for the extraction of timely, strategic, informative, or previously unknown gems of information. Looking for patterns, statistically sound data correlation/discovery by association and classification, for example, can unearth knowledge buried within these huge databases.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## CIST 1421 - MOBILE APPLICATION PROGRAMMING

## Minimum Credits: 3

Maximum Credits: 3
This course will teach fundamental programming principles with a focus on the mobile environment and the Android Platform. Students will learn important development concepts applicable to any environment as well as Android specific APIs. Students will work to create their own Android mobile application as a final project in this course.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: UL and CIST 0265

## CIST 1422 - GAME DESIGN \& PROGRAMMING

## Minimum Credits: 3

Maximum Credits: 3
This is a project-oriented course on game design and game programming. Students will work to design, implement and test a three-dimensional game with interactivity, animation, sound, and networking capabilities utilizing the Unity game engine. Pre-requisite CIST 0265
Academic Career: Undergraduate
Course Component: Lecture

## CIST 1423 - VIRTUAL REALITY PROGRAMMING AND TECHNOLOGY

## Minimum Credits: 3

Maximum Credits: 3
This class will help students understand the roots of virtual reality and then build VR experience using available program frameworks. Students will learn user interactions in virtual space and then move on to creating a virtual gallery with VR equipment. Students will learn virtual movements, state machines, and will construct completing common games in VR environment. Particularly, students will explore current VR technology including the Oculus Rift, HTC Vive, Google Daydream, and Android Gear VR. VR programming topics such as graphics generation, sensors, depth perception, stereo rendering and controllers will be covered. Students will create their own virtual environment as a final project, using Unity and C\#.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0104 (or FS 0102), and the MATH competency

## CIST 1423 - VIRTUAL REALITY PROGRAMMING AND TECHNOLOGY

## Minimum Credits: 3

Maximum Credits: 3
This class will help students understand the roots of virtual reality and then build VR experience using available program frameworks. Students will learn user interactions in virtual space and then move on to creating a virtual gallery with VR equipment. Students will learn virtual movements, state machines, and will construct completing common games in VR environment. Particularly, students will explore current VR technology including the Oculus Rift, HTC Vive, Google Daydream, and Android Gear VR. VR programming topics such as graphics generation, sensors, depth perception, stereo rendering and controllers will be covered. Students will create their own virtual environment as a final project, using Unity and C\#.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## CIST 1432 - ETHICAL HACKING

Minimum Credits: 3
Maximum Credits: 3
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: UL \& CIST 0261

## CIST 1443 - NETWORK \& SYSTEM ADMINISTRATION PRACTICUM

## Minimum Credits: 3

Maximum Credits: 3
This is a laboratory course which provides extensive hands-on application of networking and administration concepts. Students will work in teams to install and configure servers, networking equipment, software and services in a simulated corporate environment.
Academic Career: Undergraduate
Course Component: Practicum
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: UL \& CIST 0262

## CIST 1450 - TOPICS IN COMPUTER INFORMATION SYSTEMS AND TECHNOLOGY

[^3]Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0104 (or FS 0102), and the MATH competency

## CIST 1451 - CAPSTONE: COMPUTER INFORMATION SYSTEMS AND TECHNOLOGY

## Minimum Credits: 3

## Maximum Credits: 3

A capstone, project-oriented study of the planning, analysis, design and implementation of a business system using model-based software tools and available technology platforms. Much attention is given to communication and team skills. Student teams will be given a user-request for development and expected to develop appropriate systems in response. A final written report will be required as well as an oral summary. Ge: capstone
Academic Career: Undergraduate
Course Component: Seminar
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## CIST 1494 - UNDERGRADUATE FACULTY ASSISTANT

## Minimum Credits: 1

Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit
Course Attributes: Undergraduate Internship

## CIST 1497 - DIRECTED STUDY: COMPUTER INFORMATION SYTEMS AND TECHNOLOGY

Minimum Credits: 1
Maximum Credits: 6
Directed study in a specific area of computer information systems and technology. Permission of the instructor is required.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101 , ENG 0102 , FS 0102 , and the MATH competency

## CIST 1498 - DIRECTED RESEARCH: COMPUTER INFORMATION SYSTEMS AND TECHNOLOGY

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Minimum Credits: 1
Maximum Credits: 6
Independent work on a project in computer information systems and technology, supervised by a member of the computer information systems and technology faculty.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101 , ENG 0102, FS 0102, and the MATH competency
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Minimum Credits: 1
Maximum Credits: 6
This course is designed to provide the upper-level student an opportunity to assist with the planning and implementation of computing technologies and systems in an approved on-campus site or an approved off-campus site. Students may perform information systems and technology training/consulting and/or end-user support duties.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101 , ENG 0102 , FS 0102 , and the MATH competency

## Comparative Literature

## CLP 0203 - FILM AND LITERATURE

## Minimum Credits: 3

Maximum Credits: 3
A comparative study of literature and film making. Films based on works of literature. Mutual influences of technique.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Literature

## CLP 0206 - HISPANIC LITERATURE (IN ENGLISH)

## Minimum Credits: 3

## Maximum Credits: 3

Readings in representative works from Spain and Spanish America, with emphasis on contemporary literature. (The denomination "Hispanic" may also embrace works in Portuguese or of Spanish writers in the United States.) Taught in English.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Literature

## CLP 0207 - SHORT FICTION IN SPANISH

## Minimum Credits: 3

## Maximum Credits: 3

This course offers students an introduction to the works of several well-known Spanish and Latin American authors. Students will gradually develop their reading skills in Spanish by reading and discussing short pieces of fiction, thus enhancing their vocabulary, grammar, stylistic appreciation and cultural knowledge of the Spanish language and various Hispanic cultures. Texts have been selected to provide the student with a smooth transition from language classes to an appreciation of Hispanic literature.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## CLP 0216 - MODERN AFRICAN LITERATURE: THE NOVEL

## Minimum Credits: 3

## Maximum Credits: 3

The course will explore selected texts of African literature written in English or translated into English. It covers major modern African fiction and its role in explaining African politics, culture, and religion. Appropriate audio-visual material is included to give students a basic but comprehensive background in postcolonial African literature and culture. Chinua Achebe's things fall apart, Agambila's postcolonial fiction, Mariama Ba's so long letter, as well as Nobel Laureate Wole Soyinka's and other representative works will be studied.
Academic Career: Undergraduate
Course Component: Lecture

## CLP 0220 - CARIBBEAN LITERATURES AND CULTURES

## Minimum Credits: 3

Maximum Credits: 3
The history, culture, and politics of the Caribbean are studied through the works of major authors. Representative cultural and audio-visual products are also covered. Diversity and hybridity, as key features of Caribbean identity, are discussed. The role of USA in the shaping of this region will also be examined. Areas covered include Cuba, Haiti, Jamaica, Puerto Rico, Trinidad and Tobago, and the West indies.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Attributes: UPB Global General Ed. Requirement
General Education: Literature-Global

## CLP 0230 - MIDDLE EASTERN LITERATURES AND CULTURES

## Minimum Credits: 3

Maximum Credits: 3
The Middle East has diverse cultures, religions, and geographies-- from Northern West Africa through the Mediterranean all the way to the borders of central Asia. This course is focused on the study of modern middle eastern cultures presented in texts in English translation. Nonfictional and fictional audio-visual material from the region will be used, in thematic manner, to provide students with a better sense of the diverse cultures of the region. The course is also an opportunity to foster a learning community about this region, in order to reassess stereotypes of the region, as often portrayed in popular Western media. The course material is also meant to help students have a better knowledge of the attitudes and dynamism of these societies. Some themes covered include tradition and modernity, nationalism and globalization, diversity, identity, war and revolution, dictatorship and freedom.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: Completion of ENG 0101 is required
Course Attributes: UPB Global General Ed. Requirement
General Education: Literature-Global

## CLP 1310 - POSTCOLONIAL LITERATURE

## Minimum Credits: 3

Maximum Credits: 3
Literature from Africa, the Caribbean and the Asian subcontinent from the period of colonization to the present day. Examines the literature in the context of empire, independence and national identity, drawing on contemporary work in postcolonial theory by said, Ngugi, Chatterjee, Zizek, Achebe, Jameson and others.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Completion of ENG 0101, ENG 0102, FS 0102, and MATH 0098 or higher (this would include MATH 0110, 0132 or 0140) also completion of BIOL 0101, BIOL 0102, BIOL 0203 and BIOL 0217.
Course Attributes: UPB Global General Ed. Requirement
General Education: Literature-Global

## CLP 1315 - CRITICAL METHODS

## Minimum Credits: 3

Maximum Credits: 3
An introduction to modern critical theory and literary analysis. Special attention paid to attempts made in this century to construct a general theory of literature incorporating methods from other disciplines (structural linguistics, semantic philosophy, marxism, phenomenology, existentialism,
psychology).
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0104 (or FS 0102), and the MATH competency
Course Attributes: UPB Literature General Ed. Requirement
General Education: Literature

## CLP 1350 - LATINA WRITERS

## Minimum Credits: 3

Maximum Credits: 3
Offering a wide and richly-textured view of the realities of Latina identity in the Caribbean, central and South America, and the United States, this course offers students an opportunity to study the many elements that contribute to those identities and the literary forms in which they are presented. The genres studied will be the novel, essay, poetry, and plays. Readings are in English.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Completion of ENG 0101, ENG 0102, FS 0102, and MATH 0098 or higher (this would include MATH 0110, 0132 or 0140 ) also completion of BIOL 0101, BIOL 0102, BIOL 0203 and BIOL 0217.
General Education: Literature

## CLP 1494 - UNDERGRADUATE FACULTY ASSISTANT

## Minimum Credits: 1

Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit

## CLP 1497 - DIRECTED STUDY: COMPARATIVE LITERATURE

## Minimum Credits: 1

Maximum Credits: 6
Directed study in a topic in comparative literature.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## CLP 1498 - DIRECTED RESEARCH: COMPARATIVE LITERATURE

Minimum Credits: 1
Maximum Credits: 6
Independent research on a project in literature supervised by a member of the English or comparative literature faculty.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## Communication

## COMM 0101 - INTRO TO HUMAN COMMUNICATION

## Minimum Credits: 3

Maximum Credits: 3
An introduction survey course designed to familiarize students with the many contexts of human communication, such as interpersonal, small-group, organizational, public speaking and media communication.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Behavioral Sciences

## COMM 0102 - SURVEY OF BROADCASTING

## Minimum Credits: 3

Maximum Credits: 3
Historical and contemporary survey of the use and impact of the electronic media including technological and program development, regulations, controls, economics, and audiences.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## COMM 0103 - BROADCAST JOURNALISM

Minimum Credits: 3
Maximum Credits: 3
Theories and principles of broadcast journalism with practical experience in writing news stories for radio and television. Analysis of broadcast news program procedures.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## COMM 0104 - PUBLIC SPEAKING

## Minimum Credits: 3

Maximum Credits: 3
An introduction to the composition and delivery of informative and persuasive speeches, with attention to speech design, delivery, and organization. Practical applications of theoretical concepts focusing on public communication.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## COMM 0106 - NEWS WRITING

## Minimum Credits: 3

## Maximum Credits: 3

Introduction to writing for news media including the techniques and functions of reporters. The essentials and types of writing for the media will be examined, as will appropriate moral and legal issues. Emphasis will be on both real an hypothetical writing assignments and class discussion of the results.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

COMM 0107 - NEWS EDITING

Minimum Credits: 3
Maximum Credits: 3
The principles and practices of editing in modern journalism. Practical experience in editing and exploration of its function in modern journalism.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## COMM 0108 - NEWSPAPER STAFF (THE SOURCE)

## Minimum Credits: 1

## Maximum Credits: 3

Students write, edit, design, sell advertising, take photographs, prepare artwork, and paste up the editions of the source, the official student newspaper of the campus. May be repeated for a total of three credits. Activity credit.
Academic Career: Undergraduate
Course Component: Practicum
Grade Component: LG/SNC Elective Basis

## COMM 0109 - INTRODUCTION TO CINEMA

## Minimum Credits: 3

Maximum Credits: 3
As a popular art form, cinema plays a major role in what we see as contemporary artistic expression. Yet films are often watched passively, without actual awareness of creative technique. This course examines the creative depth of various films, with an emphasis on how the story gets told. Cinematography, editing, the montage, lighting, sound, and various other creative elements that make each film unique are explored.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Arts

## COMM 0110 - ROCK 'N' ROLL, PART ONE, TO 1970

## Minimum Credits: 3

## Maximum Credits: 3

This course is an introduction to "rock ' n ' roll," arguably the most important form of mass media generated popular art from the middle of the 20th century until the present. Specifically, this course will use certain developments in mass media technology as a lens through which to examine popular songs as "texts" of cultural, social, political, and artistic significance. These technological innovations include Edison's phonograph and Berliner's gramophone, to be sure, but we will also consider developments such as the long playing (LP) album, the transistor radio, the 45 rpm record, jukeboxes, and wall boxes. The bulk of the course, however, will explore the rise of what came to be called "rock and roll" between Elvis Presley's national emergence in 1956 to the point when the Beatles stopped recording in 1969.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Cultures

## COMM 0115 - INTERPERSONAL COMMUNICATION

## Minimum Credits: 3

Maximum Credits: 3
This course is an introduction to and overview of basic theories and research in inter-personal communication. The course addresses our behavior in interpersonal interactions and application of theory and research studied in various settings including the small group. Units of instruction include self-concept formation, stages of relationships and types of relationships, power, conflict and other aspects of interpersonal communication.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Behavioral Sciences

## Minimum Credits: 3

Maximum Credits: 3
This course explores the dynamics of culture and communication, and the social effects generated by their interaction. This course emphasizes the establishment and maintenance of student understanding of intercultural dynamics in a manner that positively impacts life outside the classroom.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Cultures-Global

## COMM 0197 - DIRECTED STUDY

## Minimum Credits: 1

Maximum Credits: 6
Independent study in a topic in communications. Permission of the instructor is required.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

## COMM 0201 - MASS MEDIA AND SOCIETY

Minimum Credits: 3
Maximum Credits: 3
Survey of the role of the mass media in American society and exploration of the uses of these media in public relations. Special emphasis will be given to methods of examining the control, content, audience, and effects of the press, radio, television, and motion pictures.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Behavioral Sciences

## COMM 0202 - RADIO PRODUCTION

Minimum Credits: 4
Maximum Credits: 4
Training in studio operations and procedures. Students will develop and produce public service announcements, commercials, interviews, radio drama, news, and music programs.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## COMM 0203 - DIGITAL VIDEO I

## Minimum Credits: 4

Maximum Credits: 4
Basic concepts and techniques used in television studio production. Students will design and produce short television programs.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## COMM 0209 - DIGITAL FILMMAKING

## Minimum Credits: 3

Maximum Credits: 3
This course introduces students to basic digital filmmaking techniques with an emphasis on applied aesthetics. Students learn the essentials of
camerawork, scriptwriting, storyboarding, lighting, sound and editing. Working in small groups, students develop three separate short films during the course, using the pre-production/production/post-production approach. GE Arts Pre-requisites ENG 0101 and ENG 0102.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Attributes: UPB Arts General Ed. Requirement

## COMM 0210 - SOCIAL MEDIA COMMUNICATION

## Minimum Credits: 3

## Maximum Credits: 3

New media (e.g., Facebook, Twitter, text messaging, electronic gaming devices, YouTube, etc.) Have been dramatically changing human communication and interaction in the modern society. This course uses media literacy approaches and information-processing tasks to introduce the niche perspectives of mass audience, developments of mass media industries, multiple dimensions of social realities, and potential effects of hyperonline relationships. Learners will explore a variety of communication theories and practices in examining the use of new media.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Behavioral Sciences

## COMM 0215 - BOLLYWOOD: POPULAR INDIAN CINEMA

## Minimum Credits: 3

Maximum Credits: 3
This course introduces students to the fascinating world of Bollywood- the Hindi film industry. We will discuss the many facets of Hindi movies such as: dance, music, themes, and social customs. Students will also view Bollywood films (complete with sub-titles). We will use both classic and current Bollywood cinema for this course and trace the development of stylistic and aesthetic changes throughout. Further, we will explore the notion of popular cinema. Specifically, we will inquire into the importance of the popular in a non-Western context and why we must take the popular seriously as a mode of knowledge production, which shapes both cultural practice and aspects of cultural production beyond the cinematic. Through this course, students will learn how Bollywood has emerged as a major player in global media.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Cultures-Global

## COMM 0250 - SPECIAL TOPICS

## Minimum Credits: 3

Maximum Credits: 3
The study of a special topic in communications.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## COMM 1301-DIGITAL VIDEO II

## Minimum Credits: 4

Maximum Credits: 4
Advanced techniques of television production emphasizing remote production, editing procedures, and writing. Students will learn advanced television production theory and prepare several small-group videotape projects.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101 , ENG 0102 , FS 0102 , and the MATH competency

Minimum Credits: 3
Maximum Credits: 3
Survey of broadcast advertising including its history, government regulations and advertising theory. Special emphasis on issues surrounding current advertising methods.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## COMM 1306-AMERICAN CINEMA

## Minimum Credits: 3

Maximum Credits: 3
Motion pictures are one of the dominant forms of art in the united states today. What makes them art? And more specifically, what influences their content? This course will explore these questions from a variety of perspectives and ask students to think critically about the art of the motion picture.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency General Education: Arts

## COMM 1307 - VISUAL COMMUNICATIONS

## Minimum Credits: 3

Maximum Credits: 3
This course develops a visual grammar for the images that we make and receive. We examine the nature of light and the physiology of the eye and brain, the social construction of symbols, and what ethical responsibilities makers of visual messages must consider. We also explore the role of digital technology in the generation and interpretation of visual messages.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency General Education: Cultures

## COMM 1308 - ORGANIZATIONAL COMMUNICATION

## Minimum Credits: 3

Maximum Credits: 3
This course explores and analyzes theories and principles of communication structures. It focuses on concepts and topics within organizational communication such as socialization of employees, communication and leadership, groups and individual decision-making, conflict and the development of organizational culture.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0104 (or FS 0102), and the MATH competency

## COMM 1309-ENVIRONMENTAL COMMUNICATIONS

## Minimum Credits: 3

Maximum Credits: 3
This course examines the communications methods of environ mentalism- those of both business and industry and those of the environmental movement. While the course is concerned with some of the issues that relate to the environment- land use, air resources, global warming, and pollution, among many others- its primary concern is the communications questions that these issues illustrate or suggest. We develop and revise 25 pages of material.
Academic Career: Undergraduate

Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency General Education: Cultures

## COMM 1310 - HUMAN COMMUNICATION THEORY

## Minimum Credits: 3

## Maximum Credits: 3

This course explores and analyzes classical and modern theories of human communication. This course will cover theories such as uncertainty reduction theory, technological determinism, agenda-setting theory, and face-negotiation theory. A research project is required.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0104 (or FS 0102), and the MATH competency

## COMM 1335 - NEWSPAPER SENIOR STAFF- THE SOURCE

## Minimum Credits: 3

## Maximum Credits: 3

This upper-level course offers leadership experience for student journalists of the college newspaper's senior staff. The senior members of the source staff are the editor-in-chief, the managing editor and business manager. The senior editors oversee the writers of the newspaper: they chair the staff's three-times-a-week meetings; they assign, gather and edit final copy for the six issues of the newspaper that are published during each of the fall and spring terms, as well as oversee the design and layout of the paper. The editor-in-chief also manages the efforts of the business manager, whose job is to solicit appropriate advertising from the campus community, regional businesses and national advertisers. This course is repeatable and is open to the editor-in-chief, the managing editor and, with the instructor's permission, the business manager.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: COMM 0108 is a prerequisite for this course

## COMM 1401 - BROADCAST PROGRAMMING AND MGT

## Minimum Credits: 3

Maximum Credits: 3
A survey of programming techniques used in radio and television and a study of the organizational structure of broadcast stations including responsibilities of station personnel. Analysis of management decision-making processes with emphasis on policies, sales, and program selection.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## COMM 1403-CURRENT ISSUES IN MASS MEDIA

## Minimum Credits: 3

Maximum Credits: 3
Using a seminar/workshop format, students will think about, discuss and write on critical, societal, ethical, regulatory, political and economic issues as they relate to the mass media.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101 , ENG 0102 , FS 0102, and the MATH competency
COMM 1410 - PERSUASION

Minimum Credits: 3
Maximum Credits: 3
This course will explore theories, principles, and strategies of persuasion and social influence as they apply to everyday, interpersonal, and face-toface contexts in which influence attempts to take place.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0104 (or FS 0102), and the MATH competency

## COMM 1449- TOPICS IN COMMUNICATIONS 1 CR

Minimum Credits: 1
Maximum Credits: 1
Advanced study of a topic in Communications.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: Satisfactory/No Credit
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0104 (or FS 0102), and the MATH competency

## COMM 1451-CAPSTONE: COMMUNICATIONS

## Minimum Credits: 3

Maximum Credits: 3
Comprehensive audio and video projects using both remote and studio equipment and focusing on the completion of a professional quality videotape.
Academic Career: Undergraduate
Course Component: Seminar
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## COMM 1494 - UNDERGRADUATE FACULTY ASSISTANT

## Minimum Credits: 1

Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit

## COMM 1496 - CO-OP IN COMMUNICATIONS

## Minimum Credits: 12

Maximum Credits: 12
This course offers students an opportunity to integrate classroom instruction with a practical supervised work experience. 540 Documented hours required.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: Completion of competency courses (FS 0102, ENG $0101 \& 0102$ ) and MATH 0150 Calculus 2.

Minimum Credits: 1
Maximum Credits: 6
Directed study of a specific area of communications. Permission of the instructor is required.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## COMM 1499 - INTERNSHIP: COMMUNICATION

## Minimum Credits: 1

Maximum Credits: 6
Practical experience in applied communication in a professional setting. Work is directed by the employer and evaluated jointly with the faculty supervisor.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit

## Computer Science

## CS 0207 - JAVA FOR INTERMEDIATE PROGRAMMERS

## Minimum Credits: 1

Maximum Credits: 1
This course is designed to transition students who can program at an intermediate level into the Java programming language. It focuses on the Java object model and object-oriented programming with Java.

## Academic Career: Undergraduate

Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## CS 1498 - DIRECTED RES: COMPUTER SCIENCE

## Minimum Credits: 1

Maximum Credits: 6
Independent work on a project in computer science, super vised by a member of the computer science faculty.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101 , ENG 0102 , FS 0102 , and the MATH competency

## Economics

## ECON 0101 - ECONOMICS IN THE MODERN WORLD

## Minimum Credits: 3

Maximum Credits: 3
This course is designed to provide the student who has had no previous exposure to economics with an introduction to current economic issues.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Economics

## ECON 0102 - INTRODUCTION TO MICROECONOMICS

## Minimum Credits: 3

Maximum Credits: 3
A basic course in microeconomics studying the allocation of resources, the distribution income and the mechanism of exchange in a free enterprise system under perfect and imperfect competition. Emphasis is on the market structure of the economy in the United States.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Economics

## ECON 0103 - INTRODUCTION TO MACROECONOMICS

## Minimum Credits: 3

Maximum Credits: 3
An introductory course dealing with the measures of national income, an analysis of national income fluctuations, monetary and fiscal policies and international exchange.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Attributes: UPB Economics General Ed. Requirement
General Education: Economics

## ECON 0111 - MONEY IN THE REAL WORLD

## Minimum Credits: 3

Maximum Credits: 3
Team taught course that uses a series of current issues to introduce students to the study and understanding of finance and economics. Topics such as international trade, the behavior of financial markets and U.S. Policy are explored from differing perspectives within the disciplines of finance and economics. Information from current periodicals is extensively employed.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Economics

## ECON 0112-TOURISM

## Minimum Credits: 3

Maximum Credits: 3
This is a course designed to introduce the students to the many facets of the world's largest industry, tourism. The approach is multidisciplinary focusing on such issues as work and leisure, tradition and modernity, growth and pollution, security and terrorism, privilege and servitude.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Attributes: UPB Economics General Ed. Requirement
General Education: Economics

## ECON 0197 - DIRECTED STUDY

Minimum Credits: 1
Maximum Credits: 6
Directed study in a specific area of economics.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

## ECON 0201 - MONEY AND BANKING

Minimum Credits: 3
Maximum Credits: 3
A study of the nature of money and the role it plays in an economic system. The functions of institutions, such as commercial banks, other financial intermediaries and the federal reserve system will also be studied along with the monetary policies of the United States treasury.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Economics

## ECON 0203 - INTERNATIONAL FOOD SECURITY \& POLICY

## Minimum Credits: 3

Maximum Credits: 3
This Course examines the causes of famines and its relevance to the current global food crisis, generated through high food prices, food insecurity and climate change. Policy analysis will explore the debates surrounding Genetically Modified Crops (GMOs), WTO agreements, property rights along with economics of nutrition and health. GE Economics and Global Competency.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## ECON 0204 - STATISTICAL METHODS

## Minimum Credits: 4

Maximum Credits: 4
This course deals with the fundamental techniques of descriptive and inferential statistics and covers measures of central tendency and dispersion, the concepts of probability and probability distribution, sampling distributions, hypothesis testing, chi-square tests and bivariate correlation and regression analysis.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Computational Sciences

## ECON 0206 - INTERMEDIATE MICROECONOMICS

## Minimum Credits: 3

Maximum Credits: 3
The theories and techniques of price and output are studied. Topics include the theory and measurement of demand, production functions, cost output relationships, pricing practices in competitive and oligopolistic markets, the roles of prices and profit in resource allocation and the functioning of a decentralized economic system.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## ECON 0207 - INTERMEDIATE MACROECONOMICS

Minimum Credits: 3
Maximum Credits: 3
This course begins with the rudiments of model building, and after working through the Keynesian model goes into monetary and fiscal policy issues. Coverage extends into consumption and investment theories.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## ECON 0250 - SPECIAL TOPICS

Minimum Credits: 3
Maximum Credits: 3
The study of a special topic in economics.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## ECON 1301 - POVERTY AND SOCIETY

## Minimum Credits: 3

## Maximum Credits: 3

Poverty is a problem confronting most of the world's societies. This course examines poverty from an economic, political, social, cultural and psychological point of view. Special attention is given to poverty and programs to combat it in NorthWestern Pennsylvania.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency General Education: Economics

## ECON 1307 - ECONOMICS OF ENERGY \& ENVIRONMNT

## Minimum Credits: 3

Maximum Credits: 3
The course will examine the role of energy in economic development, models of efficient energy management, OPEC behavior and world oil crisis. Coverage extends into environmental issues (air pollution, solid waste, acid rain) and government policies.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101 , ENG 0102 , FS 0102 , and the MATH competency

## ECON 1451 - CAPSTONE: ECONOMIC SYSTEMS

## Minimum Credits: 3

## Maximum Credits: 3

Studies the operation and management of a wide spectrum of economic systems, ranging from the mixed-market systems of the United States, Europe, and Japan to the central-command systems of the former soviet bloc and the republic of china.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## ECON 1494 - UNDERGRADUATE FACULTY ASSISTANT

## Minimum Credits: 1

## Maximum Credits: 3

The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit
ECON 1497 - DIRECTED STUDY: ECONOMICS

Minimum Credits: 1
Maximum Credits: 6
Directed study in a specific area of economics. Permission of the instructor.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## ECON 1498 - DIRECTED RESEARCH: ECONOMICS

## Minimum Credits: 1

Maximum Credits: 6
Directed research is designed to give students the opportunity to design and carry out a research project to be agreed upon by the student and a supervising faculty member.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## ECON 1499 - INTERNSHIP: ECONOMICS

## Minimum Credits: 1

Maximum Credits: 6
An internship is a special type of independent study in which $h$ the student works in a nonacademic setting. The internship should be directly related to economics. The student's learning is evaluated and graded by a faculty member.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101 , ENG 0102 , FS 0102 , and the MATH competency

## Education

## EDUC 0110 - BASIC SKILLS TEST PREPARATION: WRITING

## Minimum Credits: 1

Maximum Credits: 1
This course provides remediation and test taking strategies to help prepare education students for the reading basic skills test.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: Satisfactory/No Credit

## EDUC 0111 - BASIC SKILLS TEST PREP: READING

## Minimum Credits: 1

Maximum Credits: 1
This course provides remediation and test taking strategies to help prepare education students for the reading basic skills test
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: Satisfactory/No Credit

## EDUC 0112 - BASIC SKILLS TEST PREPARATION: MATH

## Minimum Credits: 1

Maximum Credits: 1
This course provides remediation and test taking strategies to help prepare education students for the reading basic skills test.

Academic Career: Undergraduate
Course Component: Lecture
Grade Component: Satisfactory/No Credit

## EDUC 0197 - DIRECTED STUDY

## Minimum Credits: 1

Maximum Credits: 6
Independent work on a project in education supervised by a member of the education faculty.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

## EDUC 0204 - INTRODUCTION TO EDUCATION

## Minimum Credits: 3

## Maximum Credits: 3

This course is an introduction to education for students who plan to enter the profession or for those who are considering teaching as a career. The course is designed as an overview of the general information required for early level, health and physical education, and secondary preservice teachers
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## EDUC 0215 - ENGLISH LANGUAGE LEARNERS

## Minimum Credits: 3

## Maximum Credits: 3

This course provides pre-service teachers with a general overview of the challenges of supporting oral language development in English language learners (ell). This course addresses the social, political, and cultural context in which language learning takes place and examines those issues that are relevant in language acquisition. This course includes a field component. GE: Cultures and Global Competency.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: EDUC 0235
Course Attributes: UPB Cultures General Ed. Requirement, UPB Global General Ed. Requirement

## EDUC 0220 - SPECIAL EDUCATION LAW

## Minimum Credits: 3

Maximum Credits: 3
A general overview of special education law. Emphases will be placed on individuals with disabilities act (idea), Americans with disabilities act (ADA), free and appropriate public education (FAPE), and no child left behind (NCLB). This course includes a field component.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## EDUC 0225 - THE DEVELOPING CHILD: BIRTH-PRIMARY YEARS

## Minimum Credits: 3

## Maximum Credits: 3

In this class, students will examine theoretical perspectives and research findings that provide insights into the course of child development. The course will cover conception and fetal development, infancy and early childhood. Discussions will focus on several domains of human development including physical, cognitive, and socio-emotional development.
Academic Career: Undergraduate

## EDUC 0230 - FAMILY AND COMMUNITY RELATIONSHIPS

## Minimum Credits: 3

Maximum Credits: 3
This course prepares teachers to be promoters and practitioners of family and community involvement in education. Goals and benefits of family and community involvement will be explored along with specific strategies for developing partnerships with each entity. Components of family structure, economics, cultural diversity, second-language learners, communication skills and resources are integrated into the coursework.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## EDUC 0235 - INSTRUCTIONAL DESIGN

## Minimum Credits: 3

## Maximum Credits: 3

This course emphasizes the use of purposeful and reflective decision making in choosing developmentally appropriate content and pedagogical techniques. These decisions will result in a classroom environment conducive to obtaining desired outcomes for student learning. The course will focus on lesson plan writing, the papa test series, multiple intelligences, and speaking and writing for teachers. The course includes twenty hours of field time.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## EDUC 0255 - READINGS IN CHILDREN'S LITERTR

## Minimum Credits: 3

Maximum Credits: 3
This course is an introduction to literature for children. Students will learn guidelines for evaluating literature for children, study the history and current state of literature for children, and review various genres of literature for children. Required reading includes classics of children's literature, award winners, and other books of current value and interest. This course includes a field component.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Attributes: UPB Second Literature General Ed. Requirement
General Education: Second Lit.

## EDUC 0275 - ADOLESCENT LITERATURE

## Minimum Credits: 3

Maximum Credits: 3
This course prepares a student to develop a reading program for an individual or a class in a secondary school and to prepare the student to teach fiction, poetry, and drama in the classroom. The course should be of particular interest to present and future teachers. We will read classics as well as modern works written specifically for an adolescent audience. We will also read and discuss sociological and psychological studies of adolescents and books on pedagogy.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Second Lit.

## EDUC 1301 - INSTRUCTIONAL TECHNOLOGY

Minimum Credits: 3
Maximum Credits: 3

Students will apply theories, research, and current practices pertaining to the utilization of various forms of technology in curriculum and instruction. This will include modifying instruction to meet the needs of diverse learners, creating a positive learning environment, increasing motivation and engagement, and the role of technology in student assessment.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: UPB Admission to Education is required in order to register for this course.

## EDUC 1302 - ASSESSMENT TECHNIQUES

## Minimum Credits: 3

Maximum Credits: 3
The course is designed to help teacher candidates become well-versed in assessment strategies. Comprehensive assessment topics including standardized tests and informal strategies, how to prepare for and conduct assessments, and how to select tests and strategies to ensure results that are valid and unbiased will be examined. Finally, students will learn how to interpret and use assessment data to drive curriculum.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## EDUC 1306-CLASSROOM MANAGEMENT

Minimum Credits: 3
Maximum Credits: 3
The course prepares pre-service early level (prek-4) teachers to be effective classroom managers through exposure to effective discipline methods and theories currently being used in diverse classrooms.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101 , ENG 0102 , FS 0102, and the MATH competency

## EDUC 1307 - SECONDARY METHODS

## Minimum Credits: 4

Maximum Credits: 4
This course introduces students to various components of instructional design, actual instruction, and classroom climate. The course includes extensive off campus experience to acquaint the student with various educational settings, as well as the roles and responsibilities of teachers in schools.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: UPB Admission to Education is required in order to register for this course.

## EDUC 1309 - DIFFERENTIATED READING INSTRUCTION AND INTERVENTION (PREK-4)

## Minimum Credits: 3

Maximum Credits: 3
This course provides an in-depth study of the balanced literacy approach to reading and writing focusing on methods to differentiate reading instruction. Authentic assessment tools and miscue analysis will be used to determine instructional goals for student learning.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: UPB Admission to Education is required in order to register for this course.

Minimum Credits: 3
Maximum Credits: 3
This course will prepare teacher candidates to develop, deliver, and assess content related to language development, language comprehension and expression and language skills. In addition, the topics of phonological development and emerging literacy will be covered.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: UPB Admission to Education is required in order to register for this course.

## EDUC 1318 - EARLY MATH FOUNDATIONS (PREK-1)

## Minimum Credits: 3

Maximum Credits: 3
This course will prepare teacher candidates to develop, deliver, and assess content related early math skills. Student will learn how to engage young learners in hands-on experiences and math exploration as they develop a concrete understanding of classification, patterning, counting, ordering, addition, and subtraction.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: UPB Admission to Education is required in order to register for this course.

## EDUC 1320 - ART, MUSIC, AND MOVEMENT METHODS (PREK-4)

## Minimum Credits: 3

Maximum Credits: 3
This course examines the essential role of the arts in an early level (prek-4) classroom, focusing on the importance of multiple intelligence theory and its implications for teaching and learning fine and performing arts. In addition, the course focuses on quality, meaningful physical activity and physical education experiences.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: UPB Admission to Education is required in order to register for this course.

## EDUC 1322 - SOCIAL STUDIES METHODS (PREK-4)

## Minimum Credits: 3

Maximum Credits: 3
This course is designed to provide an overview of the methods, materials, curriculum, and activities used to teach social studies in grades prek-4. The course is intended to help students acquire a repertoire of planning and instructional skills necessary for teaching social studies.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: UPB Admission to Education is required in order to register for this course.

## EDUC 1324 - MATH METHODS FOR PRIMARY GRADES (2-4)

## Minimum Credits: 3

Maximum Credits: 3
This course will prepare teacher candidates to teach concrete and abstract math concepts including problem solving, geometry, measurement, algebra, and probability.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: UPB Admission to Education is required in order to register for this course.

Minimum Credits: 3
Maximum Credits: 3
This course surveys the major areas of exceptionalities and student diversity addressing the characteristics and educational needs of students.
Students explore major physical and psychological characteristics, diagnostic and therapeutic services, educational programs, legal issues, and
findings of recent research. This course includes a field component.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## EDUC 1327 - SCIENCE METHODS (PREK-4)

Minimum Credits: 3
Maximum Credits: 3
This course focuses on the use of process oriented inquiry methodology to develop science literacy in all children. The course will foster a working knowledge of science education standards as well as a facility in science process skills which are vital for effective teaching. The course will provide opportunities to apply cognitive development knowledge and will explore the integration of technology, children's literature and other content areas within the early level (prek-4) science classroom.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: UPB Admission to Education is required in order to register for this course.

## EDUC 1330 - EDUCATING CHILDREN WITH EXCEPTIONAL NEEDS

## Minimum Credits: 3

Maximum Credits: 3
An examination of the varied special needs found in today's students, including both learning disabilities and the more profound physical and emotional handicaps. All school personnel must be familiar with these situations as well as the adaptations in learning that must occur as a direct response to these conditions.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: PSY 0101 and EDUC 1325

## EDUC 1332 - LITERACY FOUNDATIONS FOR PRIMARY GRADES (2-4)

## Minimum Credits: 3

## Maximum Credits: 3

This course will prepare teacher candidates to teach early literacy content through a balanced literacy approach including word level recognition, text level comprehension, and reading-writing connections.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: UPB Admission to Education is required in order to register for this course.

## EDUC 1334 - LITERACIES ACROSS THE MIDDLE AND SECONDARY CURRICULUM

## Minimum Credits: 3

Maximum Credits: 3
The course introduces and engages students in strategies that address literacies for 21 st century learners in middle and secondary content areas. Focus areas include assessments, strategies for pre-reading, during reading and post-reading, writing, technologies, critical thinking, and creating literary environments in middle and secondary classrooms. The course includes a PDE required field component. Prerequisite: admission to the education program
Academic Career: Undergraduate
Course Component: Lecture

Course Requirements: Prerequisite: UPB Admission to Education is required in order to register for this course.

## EDUC 1345 - EDUCATIONAL THEORIES AND PRACTICES

## Minimum Credits: 3

Maximum Credits: 3
Students develop criteria and skills to examine case studies, conduct field observations, read and apply articles on best practices, discover and incorporate learning domains and theorists into the design of lessons that address the challenges, needs and interests of students within the candidates' content and grade level. Charlotte Danielson's framework for teaching is a foundation of the course so the student will create a variety of effective learning environments.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101 , ENG 0102, FS 0102, and the MATH competency

## EDUC 1350 - EDUCATIONAL PSYCH \& MEASUREMENT

## Minimum Credits: 3

Maximum Credits: 3
Areas of study include psychological aspects of educational objectives, learning theory and its application, individual differences, motivation, development of personality and sex differences, and basic concepts in measurement and evaluation.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Completion of PSY 0101 and all competencies is required before taking upper-level PSY courses

## EDUC 1451-CAPSTONE: EDUCATION

## Minimum Credits: 3

Maximum Credits: 3
Students will conduct a thorough research project on Danielson's Four Domains of Effective Teaching. This course fulfills the requirement of an upper-level writing course; therefore, equal emphasis will be placed on thesis content and research and writing skills. In addition, students will prepare for their certification exams by taking practice exams and analyzing results, which will help, identify areas where further study may be needed.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: UPB Admission to Education is required in order to register for this course.

## EDUC 1481 - STUDENT TEACHING

Minimum Credits: 12
Maximum Credits: 12
This is a full-time practicum for teacher certification candidates consisting of a period of supervised observations and student teaching at two different levels in two different school districts.
Academic Career: Undergraduate
Course Component: Practicum
Grade Component: H/S/U Basis
Course Requirements: Prerequisite: UPB Admission to Education is required in order to register for this course.

## EDUC 1494 - UNDERGRADUATE FACULTY ASSISTANT

## Minimum Credits: 1

Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience
develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit

## EDUC 1497 - DIRECTED STUDY: EDUCATION

## Minimum Credits: 1

Maximum Credits: 6
Directed study in a specific area of education. Permission of the instructor is required.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## EDUC 1498 - DIRECTED RESEARCH: EDUCATION

Minimum Credits: 1
Maximum Credits: 6
Students gain research experience by helping to design and carry out a research project mutually agreed upon by the student and education faculty supervisor.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## EDUC 1499 - INTERNSHIP: EDUCATION

## Minimum Credits: 1

Maximum Credits: 6
Practical experience in education in a professional setting. Work is directed by the employer and evaluated jointly with the faculty supervisor.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## Electrical and Computer Engineering

## ECE 0031 - LINEAR CIRCUITS AND SYSTEMS 1

## Minimum Credits: 4

Maximum Credits: 4
The analysis of linear circuits. Electric variables and circuit elements; Kirchhoff's and Ohm's Law; Mesh and Node Equations; Thevenin and Norton equivalent circuits; first and second-order circuits; time domain analysis.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: Letter Grade
Course Requirements: PREQ: ENGR 0016 and PHYS 0202 and MATH 0140

## ECE 0041 - LINEAR CIRCUITS AND SYSTEMS 2

Minimum Credits: 3
Maximum Credits: 3

Sinusoidal steady-state analysis, network functions, real and reactive power, three-phase circuits, laplace transform method, two-port networks, and Fourier series.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: Letter Grade
Course Requirements: PREQ: ECE 0031

## ECE 0132 - DIGITAL LOGIC

## Minimum Credits: 3

Maximum Credits: 3
Introduction to digital systems, Boolean algebra, minimization of logic functions, combinational and sequential circuit design. Academic Career: Undergraduate
Course Component: Lecture
Grade Component: Letter Grade
Course Requirements: PREQ: ENGR 0015 and MATH 0140

## ECE 0142 - COMPUTER ORGANIZATION

## Minimum Credits: 3

Maximum Credits: 3
Digital computer data representation, instruction formats, control, memory and input-output units, microprocessors, minicomputers.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: Letter Grade
Course Requirements: PREQ: ECE 0132

## ECE 0257 - ANALYSIS AND DESIGN OF ELECTRONIC CIRCUITS

## Minimum Credits: 3

Maximum Credits: 3
Diode circuits, power supply design; analysis and design of bipolar junction transistor and field effect transistor amplifiers. Bias stability analysis, power amplifiers. Ideal operational amplifiers. Cmos inverters.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: Letter Grade
Course Requirements: PREQ: ECE 0041

## Electrical Engineering Tech

## EET 0210 - CIRCUITS 1 BASIC ELECTRICAL TECH

Minimum Credits: 3
Maximum Credits: 3
Introduction to circuit elements; resistance, inductance, capacitance, Kirchhoff's voltage and current laws; basic techniques of DC and AC circuits analysis, loop and node equations; AC network problems, three-phase AC, magnetic, and transformers.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: PHYS 0102 and MATH 0143

## EET 0211 - BASIC ELECTRICAL TECH LAB

Minimum Credits: 1
Maximum Credits: 1

Lab will accompany circuits 1 - basic electrical technology.
Academic Career: Undergraduate
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis
Course Requirements: CREQ: EET 0210

## Electrical Engineering

## EE 0031 - LINEAR CIRCUITS AND SYSTEMS 1

## Minimum Credits: 3

Maximum Credits: 3
The analysis of linear circuits. Electric variables and circuit elements; Kirchhoff's and Ohm's law; mesh and node equations; Thevenin and Norton equivalent circuits; first and second-order circuits; time domain analysis.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: Letter Grade

## Energy Engineering Technology

## EGET 1300 - PRINCIPLES OF ENERGY ENGINEERING

## Minimum Credits: 3 <br> Maximum Credits: 3

This course familiarizes students with the fundamental principles of physics and chemistry as apply to the conversion of fuels into usable energy. The course will present mathematical models and engineering calculations accounting for mass and energy flow through energy conversion systems.
Examples of energy systems covered include: combustion chemistry, electrochemical conversions, Faraday's law of induction, nuclear reactions, and photo-electric excitation. In addition, students will learn to apply conservation principles to determine the energy efficiency of prominent conversion devices
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: CHEM 0101 General Chemistry I and MATH 0142 Technical Calculus I

## EGET 1302 - WIND AND SOLAR POWER SYSTEMS

## Minimum Credits: 3

Maximum Credits: 3
This course focuses on wind power, solar photovoltaic, and solar thermal technologies, their citing requirements, engineering fundamentals, performance characteristics, operational norms. The discussion of wind power includes: the theory of induction machine performance, operation, generator speed control. The discussion of solar includes array design, environmental variables, and sun-tracking methods, solar thermal efficiency. This course also covers pertinent large-scale energy storage technologies, power back-up technologies, overall electrical system integration and performance, and plant economics.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: PHYS 0101 Introduction to Physics and EGET 1300 Principles of Energy Engineering

## EGET 1400-COMBUSTION

## Minimum Credits: 3

Maximum Credits: 3
This course focuses combustion systems used for energy production. The course outlines the topics of combustion kinetics, thermochemistry, flame control, and pollutant formation and retention in the context of modern power plants. These topics are used to analyze the efficiency of combustion systems and resulting emission outcomes. A treatment of atmospheric chemistry will describe the effects of primary and secondary combustion
emissions on the planet's thermal and hydrological cycles.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: MET 1303

## EGET 1401 - ENERGY SYSTEMS EFFICIENCY

## Minimum Credits: 3

## Maximum Credits: 3

This course focuses the energy efficiency of the most energy intensive systems in society. The efficiency of energy systems in the following areas will be selected and analyzed: energy conversions systems in: industry, commercial and residential buildings, transportation, and power production. Components of industrial processes, such boilers, heat exchangers, electro-chemical reactors, pumps, mixers, vacuums, and material conveyance systems, will be described energy efficiency within the context of conservation laws. Commercial and residential building's efficiency will be described in reference to insulation, HVAC systems, refrigeration, consumer electronics, and lighting technologies. The efficiency of automobiles, trains, and airplanes will be analyzed with emphasis on aerodynamic, heat loss, and controls. The economics energy efficiency and notions of return on investment will be used to assess emerging technologies' potential for adoption.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: EGET 1300 Principles of Energy Engineering, MET 1403 Applied Thermodynamics and ET 1300 Engineering Economics

## EGET 1402 - SENIOR PROJECT PROPOSAL

## Minimum Credits: 1

Maximum Credits: 1
Students are organized into project teams, various project ideas are considered, a final project topic is chosen and researched, and a formal proposal is written and presented. This course should be taken the semester prior to the senior design project course. Senior status is required.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: UPB SR. Energy Engr Tech

## EGET 1403 - SENIOR DESIGN PROJECT

Minimum Credits: 3
Maximum Credits: 3
Applies previously learned material-such as energy efficiency of systems, thermodynamics of power plants, -to a design. Project involves design of a new or modified energy system with demonstrated feasibility. Senior status required.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: EGET 1402 Senior Project Proposal

## Energy Science and Technology

## EST 1301 - SENSORS AND AUTOMATION

## Minimum Credits: 4

Maximum Credits: 4
This course covers the foundations of sensing materials and phenomena, measurement hardware and applications, and process automation strategies. With hands-on laboratory experience, students will learn how to establish communication between computers and sensors towards the implementation of automated processes.
Academic Career: Undergraduate

## EST 1450 - TOPICS IN ENERGY AND SCIENCE TECHNOLOGY

## Minimum Credits: 3

Maximum Credits: 3
The advanced study of a special topic in energy science and technology.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## EST 1451-CAPSTONE: ENERGY TECHNOLOGY

## Minimum Credits: 3

Maximum Credits: 3
The culminating experience of the energy science and technology degree is the capstone seminar course. At this point, students will have a working knowledge of the energy industry, technological aspects of energy technology, and the analytical tools to address complicated, multi-disciplinary energy challenges. Students will apply this knowledge base through research, experiments, analysis, and ultimately communication to a chosen and approved topic that is pertinent to the current energy fields. This original research will culminate in a final written report to be presented orally to faculty for assessment of the comprehension and skills in the energy technology.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101 , ENG 0102 , FS 0102 , and the MATH competency

## EST 1495 - INTERNATIONAL ENERGY STUDY ABROAD

## Minimum Credits: 3

Maximum Credits: 3
This course will focus on how energy policy varies around the world and how those differences in policy manifest as progress in renewable energy technologies and sustainable developments. Students will examine how economic incentives and regulations have shaped the renewable energy landscape in the US and countries around the world. State-of-the-art renewable energy, energy efficiency, and sustainable development concepts and technologies will be described both technically and as a public policy outcome. You will see firsthand the technology and public policy outcomes described in the course while traveling through Germany and Switzerland.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## EST 1497 - DIRECTED STUDY: ENERGY SCIENCE AND TECHNOLOGY

## Minimum Credits: 1

Maximum Credits: 6
Directed study in a specific area of energy science and technology.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0104 (or FS 0102), and the MATH competency

## EST 1498 - DIRECTED RESEARCH: ENERGY SCIENCE AND TECHNOLOGY

## Minimum Credits: 1

Maximum Credits: 6

Directed research is designed to give students the opportunity to design and carry out a research project to be agreed upon by the student and a supervising faculty member.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101 , ENG 0102 , FS 0102 , and the MATH competency

## EST 1499 - INTERNSHIP: ENERGY SCIENCE AND TECHNOLOGY

## Minimum Credits: 1

## Maximum Credits: 6

An internship is a special type of independent study in which the student works in a nonacademic setting; the project is designed in consultation with the academic supervisor and conducted under the guidance of an on-site supervisor. At the conclusion of the internship the student is required to submit a paper describing the overall experience.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0104 (or FS 0102), and the MATH competency

## English

## ENG 0090 - ENGLISH FOR ACADEMIC PURPOSES

## Minimum Credits: 3

## Maximum Credits: 3

This course is intended for non-native speakers of English who need to improve their reading and grammar skills and enlarge their knowledge of vocabulary for success in doing University-level coursework in English. The course includes intensive reading of the selections in the textbook, extensive reading of academic and similar materials chosen by the student or the instructor, discussions and writing assignments related to the readings, vocabulary development, and practice in applying various reading strategies.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: Letter Grade

## ENG 0100 - INTRODUCTION TO COLLEGE COMPOSITION

## Minimum Credits: 3

## Maximum Credits: 3

Designed to build self-confidence in the use of standard written English, including the ability to compose clear and correct standard English prose in sentences, paragraphs, and short essays.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: Letter Grade

## ENG 0101 - ENGLISH COMPOSITION 1

## Minimum Credits: 3

Maximum Credits: 3
The first of two required competency courses in English composition, this course focuses on the writing process and on the kinds of writing common in the academic disciplines.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: Letter Grade

## ENG 0102 - ENGLISH COMPOSITION 2

Minimum Credits: 3
Maximum Credits: 3
This is an extension of the skills mastered in ENG 0101, this course focuses on the processes of researching, writing, and presenting a term paper.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: Letter Grade
Course Requirements: Prerequisite: Completion of ENG 0101 is required

## ENG 0103 - INTRODUCTION TO POETRY

## Minimum Credits: 3

Maximum Credits: 3
The development of basic analytical and critical techniques that prepare students to understand and appreciate poetry.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Literature

## ENG 0105 - MASTERPIECES OF WORLD LITERATURE

## Minimum Credits: 3

## Maximum Credits: 3

A study of themes, ideas, and attitudes found in the works of writers from many countries. This course will offer students the opportunity to read in translation works that are considered classics in Western culture. Selections from the bible, Greek and Latin poets and playwrights, medieval masterpieces, and works from Renaissance literature.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Attributes: UPB Literature General Ed. Requirement
General Education: Literature

## ENG 0106 - INTRODUCTION TO SHORT STORY

## Minimum Credits: 3

Maximum Credits: 3
Students read and discuss representative short stories. The short story is studied as a literary genre with emphasis on structure, technique, style, and theme.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Literature

## ENG 0110 - LITERATURE AND INTERPRETATION

## Minimum Credits: 3

Maximum Credits: 3
This course is an examination of the ways in which both literary and non-literary texts create meaning and an introduction to some of the methods of literary interpretation. Beginning with literary concepts like genre, narrative, character and figurative language, this course considers the interaction among the reader, the writer and the text itself, and between different texts.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Literature

## ENG 0197 - DIRECTED STUDY

Minimum Credits: 1
Maximum Credits: 6
Independent study in a topic in English. Permission of the instructor is required.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

## ENG 0198 - DIRECTED RESEARCH IN ENGLISH

## Minimum Credits: 1

Maximum Credits: 6
An in-depth investigation of an issue in the student's area of interest. Topic, research procedure, and progress are discussed in meetings with the supervising professor.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

## ENG 0201 - AMERICAN LIT BEFORE CIVIL WAR

## Minimum Credits: 3

Maximum Credits: 3
A survey of American literature from the beginnings to the 1870's including a study of the cultural values that influenced literature. Begins with the colonial period and proceeds through other periods such as Calvinism, deism, realism, transcendentalism, and naturalism.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Literature

## ENG 0202 - AMERICAN LIT SINCE THE CIVIL WAR

Minimum Credits: 3
Maximum Credits: 3
A survey of the major American writers of prose and poetry from the 1870's to the present including the works of William Dean Howells, mark twain, Emily Dickinson, Henry James, T S. Eliot, F. Scott Fitzgerald, William Carlos Williams, and Norman Mailer.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Attributes: UPB Literature General Ed. Requirement
General Education: Literature

## ENG 0203 - BRITISH LITERATURE BEFORE 1800

Minimum Credits: 3
Maximum Credits: 3
A survey of the prose and verse produced by British writers from the eighth to the 18th century. Major authors and movements of English literature from Anglo-Saxon times to the age of enlightenment will be covered.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Attributes: UPB Global General Ed. Requirement
General Education: Literature-Global
ENG 0204 - BRITISH LITERATURE SINCE 1800

Minimum Credits: 3
Maximum Credits: 3

A survey of the major English writers of the 19th and early 20th centuries. The course stresses both the variety and the continuity of our literary heritage.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Literature

## ENG 0205 - INTRODUCTION TO SHAKESPEARE

## Minimum Credits: 3

Maximum Credits: 3
A study of selected plays of Shakespeare. The classroom study draws attention to elements that vitalize the action of each play as a whole, with due regard for language and thematic patterns as well as for characterization.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Literature

## ENG 0206 - HISTORY OF THE ENGLISH LANG

## Minimum Credits: 3

## Maximum Credits: 3

Studies of the evolution of English from Germanic dialects, its chronological changes, and differences in the English of various countries, regions, and social groups.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Cultures

## ENG 0211 - THE AMERICAN 1960S

## Minimum Credits: 3

Maximum Credits: 3
In this course, students will explore an exciting and tumultuous period through the literature, music, and journalism of various activist movements, including the Black Arts Movement, the American Indian Movement, the women's movement, anti-war movement, and the civil rights movement. Emphasis will be on the literary and artistic expression of these movements and on the ways they helped shape activist movements in our own time.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## ENG 0212 - GRAMMAR

Minimum Credits: 3
Maximum Credits: 3
A descriptive analysis of the English language.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## ENG 0214 - INTRO TO LITERATURE BY WOMEN

## Minimum Credits: 3

Maximum Credits: 3
The attitudes of both men and women will be honored as together we examine and discuss stories, poems, essays, and perhaps a short novel or two written by women of the nineteenth and twentieth centuries. We will consider, in light of our own experiences, the perspectives and concerns of women and the literary forms they have taken on.

Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Literature

## ENG 0215 - THE BIBLE AS LITERATURE

## Minimum Credits: 3

## Maximum Credits: 3

The English bible is a major influence, affecting literature, art, and ethics. Examines the bible not as inspiration but as a collection of stories and poetry. Considers history and doctrine, but major interest is in the literary aspect.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Literature

## ENG 0218 - INTRO TO LITERATURE \& ENVIRON

## Minimum Credits: 3

Maximum Credits: 3
An introduction to some of the ways nature and the environment have been represented in poetry, fiction, film, and essays. Students will read some of the major literary statements about the environment by such writers as Alto Leopold, John Muri, Henry David Thoreau, William and Dorothy words worth, and others. The course will also look at nature writing as an exploration of religious, ethical, aesthetic, and other human concerns not obviously related to the non-human world.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Literature

## ENG 0219 - AFRICAN-AMERICAN WRITERS

## Minimum Credits: 3

## Maximum Credits: 3

African-American writers is designed for students seeking to deepen their knowledge and understanding of the American experience through the writings of key black writers and activists. The works of these authors stand at the confluence of creativity, ideology and activism inasmuch as they generate controversy and challenge representations, race, gender, and sexuality in the US. Both fictional and non-fictional works will be selected from the writings of such as Alice Walker, Maya Angelo, Toni Morrison, Frederick Douglass, Malcolm X, W.E.B Dubois, Ralph Ellison, James Baldwin, Martin Luther King Jr, (among others) will be studied in order to develop a deeper appreciation of African American culture-within the context of a broader Americana. Audio-visual materials will be deployed to enhance the learning experience for students.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: Completion of ENG 0101 is required
General Education: Literature

## ENG 0250 - SPECIAL TOPICS

Minimum Credits: 3
Maximum Credits: 3
The study of a special topic in English.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

ENG 1306 - TWENTIETH-CENTURY IRISH LIT

Minimum Credits: 3
Maximum Credits: 3
A survey of Irish literature from the fall of Parnell (1890) to the present. The tragi-comic history of a troubled nation is reflected in the fiction, drama, poetry and essays of Irish writers.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0104 (or FS 0102), and the MATH competency
Course Attributes: UPB Global General Ed. Requirement, UPB Literature General Ed. Requirement
General Education: Literature-Global

## ENG 1308-20TH-CENTURY AMERICAN LIT

## Minimum Credits: 3

Maximum Credits: 3
An examination of important 20th century American literature. Including those novelists and poets of the period post-World War II. Representative novelists--such as Hemingway, Faulkner, Wright, and Mailer--and representative poets--such as Eliot, Stevens and Cummings--will be studied.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Completion of ENG 0101, ENG 0102, FS 0102, and MATH 0098 or higher (this would include MATH 0110, 0132 or 0140) also completion of BIOL 0101, BIOL 0102, BIOL 0203 and BIOL 0217.
General Education: Literature

## ENG 1315 - BRITISH LITERATURE OF THE ROMANTIC ERA

## Minimum Credits: 3

Maximum Credits: 3
This course offers an in-depth study of British literature from around the time of the French revolution in 1789 to the first reform bill in 1832. Readings include the major authors of this time period as well as some lesser known authors, along with secondary material by contemporary scholars of romanticism. The topical focus of the course as well as its relative emphasis on one or another of the four genres will vary from one semester to another.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Completion of ENG 0101, ENG 0102, FS 0102, and MATH 0098 or higher (this would include MATH 0110, 0132 or 0140) also completion of BIOL 0101, BIOL 0102, BIOL 0203 and BIOL 0217.
General Education: Literature

## ENG 1376 - LITERATURE OF THE MODERN WORLD

## Minimum Credits: 3

## Maximum Credits: 3

An examination of the evolution of literature over the last century in relation to some of the movements and events that have made the world what it is today, such as the breakup of European empires, the two world wars, the civil rights and women's rights movements, the rise and fall of the Soviet Union, and the 9/11 attack on the United States, Students will study modernism and post-modernism as literary and artistic movements operating in the face of new ethical, social, and philosophical challenges. Working from a post-colonial perspective, we will look at the role of literature from around the world in redefining the socio-political landscape and even humanity itself, as the long history of colonialism gave way to modern nation states and, ultimately, to the rise of the United States as the preeminent superpower.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Completion of ENG 0101, ENG 0102, FS 0102, and MATH 0098 or higher (this would include MATH 0110, 0132 or 0140 ) also completion of BIOL 0101, BIOL 0102, BIOL 0203 and BIOL 0217.
Course Attributes: UPB Global General Ed. Requirement

## ENG 1406 - AMERICAN JOURNEYS

## Minimum Credits: 3

## Maximum Credits: 3

An analysis of real and imaginary American journeys, the course will begin with the journals of Lewis and Clark, which chronicle the exploration of the west ordered by president Thomas Jefferson. Readings will cover such voyages as Joshua Slocum's great adventure sailing alone around the world, William least heat moon's blue highways, and Harlan Hubbard's shanty boat. "searches for self" include Ralph Ellison's invisible man and Paule Marshall's praise song for the widow.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0104 (or FS 0102), and the MATH competency
General Education: Literature

## ENG 1450 - TOPICS IN LITERATURE

## Minimum Credits: 3

## Maximum Credits: 3

The advanced study of a special topic in literature.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0104 (or FS 0102), and the MATH competency

## ENG 1451 - CAPSTONE: ENGLISH

## Minimum Credits: 3

Maximum Credits: 3
Students in this course will examine the history of literary study and its relation to the other areas of human experience. The course requires a sustantial amount of writing and revision.
Academic Career: Undergraduate
Course Component: Seminar
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0104 (or FS 0102), and the MATH competency

## ENG 1494 - UNDERGRADUATE FACULTY ASSISTANT

## Minimum Credits: 1

## Maximum Credits: 3

The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit

## ENG 1497 - DIRECTED STUDY: ENGLISH

## Minimum Credits: 1

Maximum Credits: 6
Independent study in a topic in literature of linguistics permission of the instructor.
Academic Career: Undergraduate

## ENG 1498 - DIRECTED RESEARCH: ENGLISH

## Minimum Credits: 1

Maximum Credits: 6
Independent research on a project in literature or linguistics supervised by a member of the English faculty.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

## ENG 1499 - INTERNSHIP: ENGLISH

## Minimum Credits: 1

Maximum Credits: 6
Independent research on a project in literature or linguistics supervised by a member of the English faculty.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit

## Engineering

## ENGR 0011 - INTRO TO ENGINEERING ANALYSIS

## Minimum Credits: 3

## Maximum Credits: 3

This course will provide an introduction to Excel and an introduction to design and entrepreneurship. In addition, we will address teamwork and professional integrity, both important aspects of engineering. This is a team-based, hands-on course, in which most of our class time will be spent working in teams to solve problems and participate in discussions, using what we learn in the course.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: Letter Grade

## ENGR 0012 - INTRO TO ENGINEERING COMPUTING

## Minimum Credits: 3

## Maximum Credits: 3

In this course, we will learn basic programming skills using MATLAB and C. In addition, we will address teamwork and professional integrity, both important aspects of engineering. This is a team-based, hands-on course, in which most of our class time will be spent working in teams to develop programs, solve problems, and participate in discussions, using what we learn in the course.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: Letter Grade

## ENGR 0015 - INTRODUCTION TO ENGINEERING ANALYSIS

## Minimum Credits: 3

Maximum Credits: 3
This course will provide an introduction to Excel and an introduction to design and entrepreneurship. In addition, we will address teamwork and professional integrity, both important aspects of engineering. This is a team-based, hands-on course, in which most of our class time will be spent working in teams to solve problems and participate in discussions, using what we learn in the course.
Academic Career: Undergraduate
Course Component: Lecture

## ENGR 0016 - INTRODUCTION TO ENGINEERING COMPUTING

## Minimum Credits: 3

Maximum Credits: 3
In this course, we will learn basic programming skills using MATLAB and C. In addition, we will address teamwork and professional integrity, both important aspects of engineering. This is a team-based, hands-on course, in which most of our class time will be spent working in teams to develop programs, solve problems, and participate in discussions, using what we learn in the course.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: Letter Grade
Course Requirements: PREQ: ENGR 0015 and PHYS 0201; CREQ: MATH 0140

## ENGR 0020 - PROBABILITY AND STATISTICS FOR ENGINEERS 1

## Minimum Credits: 4

Maximum Credits: 4
An introductory course in statistics. Topics covered include: data analysis, probability, random variables, selected discrete and continuous probability distributions, one sample and two sample estimation, hypothesis testing, experiments with two factors and introduction to regression analysis.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: Letter Grade
Course Requirements: PREQ: MATH 0150
Course Attributes: SCI Quantitative: Statistics GE. Req.

## ENGR 0022 - MATERIALS STRUCTURE AND PROPERTIES

## Minimum Credits: 3

Maximum Credits: 3
An introduction to the basic concepts of materials science and engineering. The concepts of atomic, crystal, micro- and macro-structure, their control and effects on chemical, electrical, magnetic, optical, and mechanical properties. Modification of properties by heat treatment and control of processing. Fundamental considerations in materials selection.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: Letter Grade
Course Requirements: PREQ: ENGR 0131 or 0135

## ENGR 0081 - FRESHMAN ENGINEERING SEMINAR 1

## Minimum Credits: 0

Maximum Credits: 0
An in-depth orientation in the various areas of engineering and the related fields of employment. Includes small group meetings with departmental representatives and special freshman academic advisors. A formal departmental choice is made at the conclusion of these courses.
Academic Career: Undergraduate
Course Component: Seminar
Grade Component: H/S/U Basis

## ENGR 0082 - FIRST-YEAR ENGINEERING SEMINAR 2

## Minimum Credits: 0

Maximum Credits: 0
An in-depth orientation in the various areas of engineering and the related fields of employment. Meetings include departmental representatives, professional development, and first-year academic advisors. A formal departmental choice is made at the conclusion of this course.
Academic Career: Undergraduate

## ENGR 0085-ENGINEERING SEMINAR

Minimum Credits: 0
Maximum Credits: 0
Required of all engineering students.
Academic Career: Undergraduate
Course Component: Seminar
Grade Component: Satisfactory/No Credit

## ENGR 0131 - STATICS FOR CIVIL AND ENVIRONMENTAL ENGINEERS

Minimum Credits: 3<br>Maximum Credits: 3<br>A basic course in statics. Utilizing the free-body diagram, the course covers forces and equilibria of particles, rigid bodies, surfaces, trusses, beams, cables, and other basic structural elements.<br>Academic Career: Undergraduate<br>Course Component: Lecture<br>Grade Component: Letter Grade<br>Course Requirements: PREQ: PHYS 0201 and MATH 0140

## ENGR 0135 - STATICS \& MECHC OF MATERIALS 1

## Minimum Credits: 3

Maximum Credits: 3
First of a two course sequence covering statics and strength of materials. Topics covered include: concurrent force systems, equilibrium, axial loading, stress, strain, deformation, moments, equivalent systems, centroids, centers of mass, and distributed loads, free-body diagrams, equilibrium of rigid and deformable bodies, plane trusses, frames and machines, equilibrium in 3D, torsion and friction. Use is made of computers for problem solving.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: Letter Grade
Course Requirements: PREQ: PHYS 0201 and MATH 0140

## ENGR 0141 - MECHANICS OF MATERIALS CIVIL AND ENVIRONMENTAL ENGINEERS

## Minimum Credits: 3

Maximum Credits: 3
An introductory course in the mechanics of deformable bodies, with special application to the range of topics needed by civil engineers. The course material covers internal strains, stresses and deformations which occur when a structure is subjected to applied loads. Problems with tie-in to practical design issues will be covered
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: Letter Grade
Course Requirements: PREQ: ENGR 0131

## ENGR 0145 - STATICS \& MECHC OF MATERIALS 2

## Minimum Credits: 3

Maximum Credits: 3
Second of a two course sequence covering statics and strength of materials. Topics include: flexure; second moment of areas, shear force and bending moment diagrams, composite beams, shearing stresses, beam deflections, energy methods, Castigliano's methods, moment area method, combined static loading and columns.
Academic Career: Undergraduate

## ENGR 0197 - DIRECTED STUDY IN ENGINEERING

Minimum Credits: 1<br>Maximum Credits: 6<br>Academic Career: Undergraduate<br>Course Component: Directed Studies<br>Grade Component: LG/SNC Elective Basis

## ENGR 0199 - INTERNSHIP: ENGINEERING

## Minimum Credits: 1 <br> Maximum Credits: 6

This is an internship experience for engineering majors to allow them to apply the knowledge and skills learned in the classroom to practical situations in a professional setting. Internships are assigned on a basis of student's interest and the availability of positions.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: LG/SNC Elective Basis

## Engineering Technology

## ET 0101 - MACHINE SHOP

## Minimum Credits: 1

## Maximum Credits: 1

Machine Shop will prepare students to utilize machines such as milling machines, lathes, drill presses, plasma cutters, and grinders for common in metal format fabrication. This course emphasizes best practices in shop safety, utilization of precision measuring instruments such as layout tools, coordinate measurement machines, and micrometers. Basic computations related to feed rates and part dimensions are provided to gain understanding of practical manufacturing limitations of engineering designs. Students will also learn how to write and execute programs associated with computer numerical control (CNC) lathes and milling machines.
Academic Career: Undergraduate
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis

## ET 0115 - MECHANICS-STATICS

## Minimum Credits: 3

Maximum Credits: 3
This course is an introduction to statics with an emphasis on determining the external effects of forces acting on particles, rigid bodies, and structures. For analysis, forces are treated as vectors and manipulated using vector algebra. Emphasis is placed on the use of the free-body diagram for equilibrium.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: Letter Grade
Course Requirements: PREQ: Math 0142 and PHYS 0101

## ET 0201 - MECHANICS-DYNAMICS

## Minimum Credits: 3

Maximum Credits: 3
This second course in mechanics adds the concept of motion to the principles developed in the first course. Kinematics of rigid bodies as well as particles, including relative motion as well as both simple rectilinear and curvilinear motion, are studied. In addition, kinetic analysis using Newton's
second law, work-energy methods, and impulse-momentum techniques will be applied to those same systems. The free-body diagram rational analysis of rigid bodies will be emphasized.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: Letter Grade
Course Requirements: PREQ:ET 0115 and MATH 0143

## ET 0202 - STRENGTH OF MATERIALS

## Minimum Credits: 3

Maximum Credits: 3
The study of stress and strain relationships of bodies subjected to loads. Topics studied are axially loaded members; beam analysis including shear and moment diagrams, flexural and shearing stresses, and beam deflections; torsion; principal stresses including Mohr's circle; combined stresses; temperature effects; and statically indeterminate members.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: ET 0115 AND MATH 0143; CREQ: ET 0203

## ET 0203 - STRENGTH OF MATERIALS LAB

## Minimum Credits: 1

Maximum Credits: 1
Physical tests are conducted and lab reports written on many of the basics learned in the lecture course.
Academic Career: Undergraduate
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis
Course Requirements: CREQ: ET 0202

## ET 0205 - ENGINEERING DESIGN

## Minimum Credits: 3

Maximum Credits: 3
This course provides students with the fundamentals of the engineering design process, basic forms of graphic communication, and an introduction to common mechanical components and manufacturing processes. The course is divided into a lecture and a laboratory section. The lab section will include the creation of 3-dimensional models using SOLIDWORKS. The course includes a group design project and an oral report.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: ET 0201 and ET 0202 and EET 0210

## ET 0251 - SPECIAL TOPICS LAB IN ENGINEERING TECHNOLOGY

Minimum Credits: 1
Maximum Credits: 1
A special topics lab for Engineering Technology
Academic Career: Undergraduate
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis

## ET 1300 - ENGINEERING ECONOMICS

Minimum Credits: 3
Maximum Credits: 3
This course involves the integration of engineering and business decision making. It emphasizes analytical investment decision methodologies as they relate to engineering management decisions. It focuses on basic capital project evaluation techniques to include: interest calculations, present

## Entrepreneurship

## ENTR 1497 - DIRECTED STUDY: ENTREPRENEURSHIP

## Minimum Credits: 1

Maximum Credits: 6
Directed study in a topic in entrepreneurship.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## Environmental Studies

## ENVSTD 0102 - INTRO TO ENVIRONMENTAL STUDIES

## Minimum Credits: 3

Maximum Credits: 3
The study of the environment occurs across many disciplines including biology, chemistry, economics, political science, history, philosophy and literature. As such, this course will provide an introduction to the ecological and social contexts of environmental issues. Particular attention is given to the frameworks of biodiversity, ecosystems and communities, and sustainability.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Political Science

## ENVSTD 0197 - DIRECTED STUDY IN ENVIRONMENTAL STUDIES

## Minimum Credits: 1

Maximum Credits: 6
This course is independent study in a topic in environmental studies.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

## ENVSTD 1450 - TOPICS IN ENVIROMENTAL STUDIES

## Minimum Credits: 3

Maximum Credits: 3
The advanced study of a special topic in environmental studies.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

ENVSTD 1451 - CAPSTONE: ENVIRONMENTAL STUDIES

Minimum Credits: 3
Maximum Credits: 3
The culminating experience of the environmental studies degree is the capstone seminar course. At this point you should understand why environmental studies is an interdisciplinary endeavor: the relationships between humans and nature are complex, and to understand them, one must understand their ecological, socio-cultural, economic, and moral dimensions. Through readings, discussions, guest speakers, field trips, independent research, writing, and oral presentations, you will extend your understanding of the underlying causes and long-term implications of some of the environmental problems facing the world today. In addition, you will apply your knowledge in these areas as you conceive of, conduct, and compose your own, original research. You shall illuminate the specific issue pertaining to this course by employing insights from the various disciplines that comprise environmental studies (e.g., ecology, political science, ethics, etc.). The goal of your research paper will be to arrive at conclusions about what can and should be done in response to the problem of this seminar.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## ENVSTD 1494 - UNDERGRADUATE FACULTY ASSISTANT

## Minimum Credits: 1

Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit

## ENVSTD 1497 - DIRECTED STUDY

Minimum Credits: 1
Maximum Credits: 6
Independent study in a topic in environmental studies. Permission of the instructor is required.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## ENVSTD 1498 - DIRECTED RESEARCH: ENVIRONMENTAL STUDIES

Minimum Credits: 1
Maximum Credits: 6
Students gain research experience by helping to design and carry out a research project mutually agreed upon by the student and education faculty supervisor.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## ENVSTD 1499 - INTERNSHIP: ENVIROMENTAL STUDIES

## Minimum Credits: 1

Maximum Credits: 6
Practical experience in environmental studies in a professional setting. Work is directed by the employer and evaluated jointly with the faculty supervisor.
Academic Career: Undergraduate
Course Component: Internship

## Environmental Science

## ES 0105 - ENVIRONMENTAL GEOLOGY

## Minimum Credits: 3

Maximum Credits: 3
A study of cultural basis for environmental awareness; geologic hazards; environmental modification due to human impact; waste disposal; mineral resources and environment, energy and environment; landscape evaluation; air and water pollution.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Physical Science

## ES 0106 - INTRO TO OCEANOGRAPHY

## Minimum Credits: 3

Maximum Credits: 3
An introductory course to familiarize students with the scientific study of ocean waters. Covers the four classic subdivisions: geological, chemical, physical and biological. Stresses the interdependency of these subject areas toward a global view of this vast, yet fragile realm. Course also conveys the societal significance of the oceans and details the human element of the great commitment toward scientific exploration of this often foreign and dangerous world of inner space.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Attributes: UPB Physical Science General Ed. Requirement
General Education: Physical Science

## ES 0107 - ENVIRONMENTAL GEOLOGY LAB

## Minimum Credits: 1

Maximum Credits: 1
The course goal is to learn problem solving techniques involving geological processes which affect natural and human-caused environmental hazards.
Academic Career: Undergraduate
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis
General Education: Physical Science

## ES 0110 - INTRO TO ENVIRONMENTAL SCIENCE

## Minimum Credits: 3

Maximum Credits: 3
This course is an interdisciplinary study which presents a general overview of how nature works and how earth and life systems, including society, are interconnected. It examines how the environment is used and abused by humans, and what individuals can do to protect and improve it for future generations, and for other living things.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Physical Science

## ES 0112 - INTRODUCTION TO ENERGY SCIENCE AND TECHNOLOGY

Minimum Credits: 3
Maximum Credits: 3
The use of energy is an inseparable component of human life. This course will serve as an introduction to the complex energy landscape by highlighting the key technical, environmental, and economic issues associated with the development and use of modern energy sources. Students will become familiar with the methods for determining, comparing, and improving the energy efficiency of vehicles, buildings, and industrial processes. Finally, the most advanced efficiency and alternative energy technologies will be discussed.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Attributes: UPB Physical Science General Ed. Requirement
General Education: Physical Science

## ES 0201 - RESEARCH METHODS FOR ENVIRONMENTAL SCIENTISTS

## Minimum Credits: 3

## Maximum Credits: 3

Biological/ecological/ and chemical research methods will be used to address and understand current environmental issues. By developing the principles and concepts learned in this course, students will be able gather specific skills to use in future studies and for decision-making concerning environmental issues. Field research and monitoring will place emphasis on the use of the scientific method, experimental design, data handling, statistical analysis, investigator safety, scientific ethics, quality assurance, and presentation. Application of basic field skills will include: habitat description; methods of sampling plants, animals, soil, air and water; microclimate observation; and manipulative techniques to address ecological conservation management questions.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## ES 0250 - TOPICS IN ENVIRONMENTAL SCIENCE

Minimum Credits: 3
Maximum Credits: 3
The study of a special topic in environmental science.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## ES 1301 - ADVANCED FIELD METHODS AND TECHNIQUES

## Minimum Credits: 3

## Maximum Credits: 3

In this advanced field research course students will continue to use biological/ecological/and chemical research methods to address and understand current environmental issues. Students will carefully select a scientific research study that is of value or interest. This will allow for a more active role in the experimental design process. After carefully planning and gathering research and resources, they will either replicate that study, try it again to improve it, or use it as a basis for a new idea. Learning research methods is an important skill needed in addition to conducting field work and making good decisions in the laboratory. A more in-depth use of statistics, scientific plots, writing a scientific lab report, and presenting a research project will also be included in this course.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Completion of ENG 0101, ENG 0102, FS 0102 and MATH 0110 or (MATH 0132 or MATH 0140)

## ES 1305 - SOIL SCIENCE

## Minimum Credits: 4

Maximum Credits: 4
An examination of the nature and properties of soils emphasizing physical and chemical processes that influence plant growth and the movement of water and pollutants are covered in this course. The importance of soil properties in determining urban, industrial and agricultural uses are discussed.

There will be field trips to examine soil properties.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101 , ENG 0102, FS 0102, and the MATH competency

## ES 1494 - UNDERGRADUATE FACULTY ASSISTANT

## Minimum Credits: 1

## Maximum Credits: 3

The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit

## ES 1498 - DIRECTED RESEARCH

## Minimum Credits: 1

Maximum Credits: 6
Directed research is designed to give students the opportunity to design and carry out a research project to be agreed upon by the student and a supervising faculty member.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0104 (or FS 0102), and the MATH competency

## ES 1499 - ENVIRONMENTAL SCIENCE INTERNSHIP

Minimum Credits: 1
Maximum Credits: 6
Internship in Environmental Science field
Academic Career: Undergraduate
Course Component: Internship

## Exercise Science

## EXSCI 0101 - CARE AND PREVENTION OF ATHLETIC INJURIES

## Minimum Credits: 3

Maximum Credits: 3
This course is designed to help students learn the techniques of stabilization, taping, and bracing techniques used in athletic training. The course will cover techniques for all areas of the body including the foot, ankle, knee, hip, shoulder, elbow, and hand.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## EXSCI 0102 - INTRODUCTION TO EXERCISE SCIENCE

## Minimum Credits: 3

Maximum Credits: 3
This courses introduces students to the field of exercise science and the evolution of the profession. Opportunities are provided to identify
characteristics of exercise science professionals, diverse perspectives, and current trends in the field. Emphasis is placed on career planning and employment opportunities.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: Letter Grade

## EXSCI 0108 - NUTRITION

## Minimum Credits: 3

## Maximum Credits: 3

An introduction to the processes involved in nourishing the body. Emphasis will include a study of nutrients and their physiological impact and interrelationships within the body, and the quality of diet.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## EXSCI 0109 - MEDICAL TERMINOLOGY

## Minimum Credits: 2

Maximum Credits: 2
A study of word origin and structure through the introduction or prefixes, suffixes, root words, plurals, abbreviations and symbols, surgical procedures, medical specialties and diagnostic procedures.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## EXSCI 0197 - LOWER LEVEL DIRECTED STUDY IN EXERCISE SCIENCE

Minimum Credits: 1<br>Maximum Credits: 6<br>A Lower level Directed Study in Exercise Science<br>Academic Career: Undergraduate<br>Course Component: Directed Studies<br>Grade Component: LG/SNC Elective Basis

## EXSCI 0204 - FIRST AID/CPR

## Minimum Credits: 2

Maximum Credits: 2
This course will teach the student how to recognize an emergency and how to respond. The student will be prepared to make appropriate decisions regarding first aid care and how to provide care for injuries or sudden illness until professional medical help arrives. Upon completion of this course, student will be eligible for American Heart Association Certification.
Academic Career: Undergraduate
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis

## EXSCI 0215 - EXERCISE PSYCHOLOGY

## Minimum Credits: 3

Maximum Credits: 3
The course is designed to provide students with an overview and understanding of the theoretical foundations of exercise psychology, current research applications, and implications for practitioners. Students will have the opportunity to apply their knowledge in selected areas within exercise psychology through class discussions and assignments.
Academic Career: Undergraduate
Course Component: Lecture

## EXSCI 0216 - GROUP EXERCISE LEADERSHIP

## Minimum Credits: 3

Maximum Credits: 3
This course will provide students with an analysis of the educational concepts, performance techniques, program construction and leadership skills necessary to teach instructor-led group exercise programs and create personal training programs. The course will include a basic study of application of safe and effective exercise methods for all fitness levels. Areas of instruction will include hi/low impact, step training, water exercise, yoga, Pilates, circuit training and indoor cycling.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREREQ HPRED 0102

## EXSCI 0225 - FUNCTIONAL HUMAN ANATOMY

## Minimum Credits: 3

Maximum Credits: 3
The study of the structure and functional significance of the human body- with emphasis on neural, musculoskeletal and cardiopulmonary systems. The introduction to clinical application of relevant anatomy, with respect to some common conditions seen in the health/medical profession and how it relates to physical activity and exercise will be examined.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: Letter Grade

## EXSCI 1305-BIOMECHANICS

## Minimum Credits: 3

Maximum Credits: 3
This course is a study of the science of human movement with emphasis upon the structure and functioning of the movement mechanism, mechanical principles underlying human motion, and an analysis of basic motor skills.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## EXSCI 1306 - EXERCISE PHYSIOLOGY

Minimum Credits: 4
Maximum Credits: 4
This course examines physiological changes during exercise, after exercise, and during a training period. It also considers efficiency, needs, and limitation of body systems and their interrelationships.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency, also required is sophomore status

## EXSCI 1320 - PRINCIPLES OF STRENGTH TRAINING AND CONDITIONING

## Minimum Credits: 3

Maximum Credits: 3
This course is designed to enhance the student's current level of knowledge and expertise to an advanced level in neuromuscular exercise physiology. The course will examine anaerobic energy systems and emphasis will be placed on high intensity exertion. The course will focus on the assessment
and implementation of training programs with strong emphasis being placed on the areas of resistance training, plyometric training, flexibility, speed and agility training.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101 , ENG 0102, FS 0102, and the MATH competency, also required is junior status

## EXSCI 1405 - RESEARCH METHODS IN EXERCISE SCIENCE

## Minimum Credits: 3

Maximum Credits: 3
An introduction to research methods used in the design, analysis and interpretation of research in sport and exercise science.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101 , ENG 0102 , FS 0102 , and the MATH competency

## EXSCI 1410 - EXERCISE PRESCRIPTION

## Minimum Credits: 3

Maximum Credits: 3
This course focuses on development of exercise prescription for health-related fitness with specific respect for the following: cardio respiratory endurance, muscular strength and endurance, flexibility and optimal body composition, client screening, and fitness assessment following the American college of sports medicine guidelines included.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101 , ENG 0102, FS 0102, and the MATH competency, also required is junior status

## EXSCI 1415 - ECG INTERPRETATION/STRESS TESTING

## Minimum Credits: 3

Maximum Credits: 3
This course provides students with information designed to study topics that include cardiovascular dynamics as studied through anatomy, electrophysiology, and the pathology of the cardiovascular system. The role of exercise in assessing both cardiovascular pathology and determining functional capacity for exercise prescription will also be examined. Specific emphasis will be placed on the analysis of the cardiovascular system through non-invasive methods of evaluation.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## EXSCI 1416 - CLINICAL EXERCISE PHYSIOLOGY

## Minimum Credits: 3

Maximum Credits: 3
This course examines those special cases in which one must consider adjusting either the exercise testing or prescription of unusual circumstances. Clinical descriptions of 'special populations' will be presented as well as the impact on exercise. Special cases/issues considered will include diabetes, heart disease, hypertension, obesity, respiratory disorders, arthritis, cancer, HIV, asthma and children.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREREQ HPRED 0102

## Minimum Credits: 3

Maximum Credits: 3
This course is designed to provide current information in the area of wellness and health promotion, specifically in the workplace. Course content will be structured around the need for health promotion, models of health promotion and planning health promotion programs in the workplace.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREREQ: HPRED 1306

## EXSCI 1435 - EXERCISE ASSESSMENT

## Minimum Credits: 3

Maximum Credits: 3
This course will study exercise testing for cardiorespiratory fitness and disease diagnosis. Knowledge of ECG abnormalities and cardiorespiratory pharmacology applied to clinical exercise testing. The course will also cover body composition and musculoskeletal fitness testing.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: Letter Grade
Course Requirements: PREREQ HPRED 0102

## EXSCI 1440 - EXERCISE PRESCRIPTION FOR SPECIAL POPULATIONS

## Minimum Credits: 3

Maximum Credits: 3
This course evaluates the impact of physical activity and exercise on youth, older adults, and individuals with various health conditions and controlled diseases. Changes that occur during growth, development, maturation and the aging process in relation to physical activity/ exercise are examined. Pathophysiology, disease management, medications, exercise testing, and acute responses and chronic adaptations of physical activity/exercise programs for individuals with various health conditions and controlled diseases are identified.

## Academic Career: Undergraduate

Course Component: Lecture
Grade Component: Letter Grade
Course Requirements: PREREQ: HPRED 1306

## EXSCI 1453 - CAPSTONE: EXERCISE SCIENCE

## Minimum Credits: 3

Maximum Credits: 3
The capstone experience is a culmination of coursework in exercise science. It provides the opportunity to critically analyze and conduct contemporary research, practice in a clinical setting, evaluate the current and future trends in the discipline and discuss personal and professional challenges that will exist following commencement.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: Letter Grade
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## EXSCI 1494 - UNDERGRADUATE FACULTY ASSISTANT

## Minimum Credits: 1

## Maximum Credits: 3

The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: Undergraduate

## EXSCI 1497 - DIRECTED STUDY

Minimum Credits: 1
Maximum Credits: 6
Directed Study in Exercise Science
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

## EXSCI 1499 - INTERNSHIP: EXERCISE SCIENCE

Minimum Credits: 1<br>Maximum Credits: 6<br>Practical experience in exercise science in a professional setting. Work is directed by the employer and evaluated jointly with the faculty supervisor. Academic Career: Undergraduate<br>Course Component: Internship<br>Grade Component: Satisfactory/No Credit

## Finance

## FIN 0197 - DIRECTED STUDY IN FINANCE

Minimum Credits: 1<br>Maximum Credits: 3<br>Academic Career: Undergraduate<br>Course Component: Lecture<br>Grade Component: LG/SNC Elective Basis

## FIN 0250 - SPECIAL TOPICS

Minimum Credits: 3<br>Maximum Credits: 3<br>The study of a special topic in finance<br>Academic Career: Undergraduate<br>Course Component: Lecture<br>Grade Component: LG/SNC Elective Basis

## FIN 1301 - CORPORATE FINANCE

## Minimum Credits: 3

Maximum Credits: 3
The focus of the course is on the role of the financial manager in maximizing value of the firm. It will include financial decision making within a business firm: financial planning, working capital management, capital budgeting, cost of capital determination, and characteristics and valuation of securities.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, ACCT 0201 and the MATH competency

## FIN 1302 - INVESTMENTS

## Minimum Credits: 3

Maximum Credits: 3
The investments course will acquaint the student who already has some background in business financial matters with the real, ever-changing world of investment decision making. Students will apply previously acquired concepts learned in economics, corporate finance, accounting, and other related courses to the field of investments. Each student will prepare a written investment portfolio recommendation and will make an oral presentation to the class based on the report. Prerequisites: ACCT 0201 \& FIN 1301
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: ACCT 0201 and FIN 1301

## FIN 1303 - ANALYSIS OF FINANCIAL STATEMENTS

## Minimum Credits: 3

Maximum Credits: 3
Financial statement analysis involves the evaluation of operations for a business firm with the primary objective of forecasting future conditions and performance. This course focuses on the evaluations of accounting information from both the perspective of internal corporate analysis and external credit or securities analysis.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## FIN 1304 - FINANCL MARKETS AND INSTITUTIONS

## Minimum Credits: 3

Maximum Credits: 3
The mechanics and structure of U.S. Financial institutions will be examined. Financial markets and instruments are also analyzed. The course also covers the management of financial institutions, with particular emphasis on commercial banking.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## FIN 1401 - INTERNATIONAL FINANCE

## Minimum Credits: 3

Maximum Credits: 3
This course examines the financial function from the stand point of a multinational corporation. The course focuses on the balance of payments process, the mechanics of foreign exchange markets, corporate management of foreign exchange exposure, and capital budgeting at the international level. International financial markets are also examined
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0104 (or FS 0102), and the MATH competency
Course Attributes: UPB Global General Ed. Requirement
General Education: Global

## FIN 1450 - TOPICS IN FINANCE

## Minimum Credits: 3

Maximum Credits: 3
The advanced study of a special topic in finance.

## FIN 1494 - UNDERGRADUATE FACULTY ASSISTANT

## Minimum Credits: 1

Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit

## FIN 1497 - DIRECTED STUDY: FINANCE

## Minimum Credits: 1

Maximum Credits: 6
Directed study in a specific area of finance. Permission of the instructor is required.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

## FIN 1498 - DIRECTED RESEARCH: FINANCE

## Minimum Credits: 1

## Maximum Credits: 6

Directed research is designed to give students the opportunity to design and carry out a research project to be agreed upon by the student and a supervising faculty member.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

## FIN 1499 - INTERNSHIP: FINANCE

## Minimum Credits: 1

Maximum Credits: 6
Practical experience in finance in a professional setting. Work is directed by the employer and evaluated jointly with the faculty supervisor.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## Forensic Science

## FORSCI 0201 - INTRO TO EVIDENCE ANALYSIS

## Minimum Credits: 3

Maximum Credits: 3
This course introduces students to commonly used forensic techniques such as microscopy, spectroscopy and chromatography. Scientific background uses and limitations of the techniques are discussed. Prerequisites CHEM 0101 and BIOL 0101.
Academic Career: Undergraduate

## FORSCI 1301 - EVIDENCE COLLECTION AND ANALYSIS I

## Minimum Credits: 4

Maximum Credits: 4
This course is intended to familiarize students with the collection and analysis of physical and trace evidence often found at scenes of violent crime. 3 hours of lecture and 4 hours of lab per week.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: CHEM 0206 and completion of competency courses (ENG 0101, 0102 and Math 0098 or higher).

## FORSCI 1401 - EVIDENCE COLLECTION AND ANALYSIS II

## Minimum Credits: 4

Maximum Credits: 4
This course is intended to familiarize students with collection and analysis of evidence generally associated with non violent crimes. 3 hours of lecture and 4 hours of lab each week.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: FORSCI 1301 and completion of competency courses (ENG 0101, 0102 and MATH 0098 or higher).

## FORSCI 1450 - TOPICS IN FORENSIC SCIENCE

Minimum Credits: 3
Maximum Credits: 3
The advanced study of a special topic in forensic science.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0104 (or FS 0102), and the MATH competency

## FORSCI 1497 - DIRECTED STUDY: FORENSIC SCIENCE

## Minimum Credits: 1

Maximum Credits: 3
Directed study in a specific area of forensic science.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0104 (or FS 0102), and the MATH competency

## French

## FR 0101 - ELEMENTARY FRENCH 1

## Minimum Credits: 3

Maximum Credits: 3
This beginners' French course is open to all students and provides a solid introduction to speaking, understanding, reading and writing French.

Indeed, you will begin speaking French from day one! The course focuses on functional language use for real world situations in the French-speaking world around the globe, whether you find yourself at a hockey game in Montreal, at a fine restaurant in Paris, at a resort in Dakar or on a hiking trip in the Atlas. No prerequisites. Taught in French. Students should continue on to FR 0102 the following semester.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Attributes: UPB Global General Ed. Requirement, UPB Language General Ed. Requirement
General Education: Language/Global

## FR 0102 - ELEMENTARY FRENCH 2

## Minimum Credits: 3

Maximum Credits: 3
Had some French in the past? Want to get better for that trip to Paris, Montréal, or Dakar? Continue to gain fluency and prepare for trips abroad, future careers, or studies in French 0102! In this second-semester course, we help you build on skills gained in French 0101 or from previous studies elsewhere. French 0102 also prepares you to engage in real-life communication. At the end of the course, you will be able to ask questions, make comparisons, and exchange personal information with ease. Prerequisite: FR 0101 or Placement.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Attributes: DSAS Second Language General Ed. Requirement, UPB Global General Ed. Requirement, UPB Language General Ed. Requirement
General Education: Language/Global

## FR 0197 - DIRECTED STUDY

Minimum Credits: 1
Maximum Credits: 6
Independent study in a topic in French. Permission of the instructor is required.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

## FR 0201 - INTERMEDIATE FRENCH 1

## Minimum Credits: 3

Maximum Credits: 3
A more advanced study of spoken and written French. Students continue to improve their proficiencies in oral aural and reading-writing skills. The textbooks consist of several works, plays or novels. Students use basic patterns of speech and review functional grammar.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Language/Global

## FR 0202 - INTERMEDIATE FRENCH 2

## Minimum Credits: 3

Maximum Credits: 3
A continuation of intermediate French I. A more advanced study of spoken and written French. Students continue to improve their proficiencies in oral-aural and reading-writing skills. The textbooks consist of extracts of several works, plays, or novels. Students use basic patterns of speech and review functional grammar. Reading comprehension activities and essay are included to enhance students' written communication skills. Slightly more advanced translation is included to enhance students' written French skills.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Language/Global

## FR 1494 - UNDERGRADUATE FACULTY ASSISTANT

## Minimum Credits: 1

Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit

## FR 1497 - DIRECTED STUDY

## Minimum Credits: 1

Maximum Credits: 6
Independent study in a topic in French. Permission of the instructor is required.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

## FR 1498 - DIRECTED RESEARCH: FRENCH

Minimum Credits: 1
Maximum Credits: 6
Independent research on a project in French. Supervised by a member of the French faculty.

## Academic Career: Undergraduate

Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## Freshman Studies

## FS 0102 - FIRST YEAR SEMINAR

## Minimum Credits: 3

## Maximum Credits: 3

Freshman seminar is designed to transition students to the university academic setting, to introduce students to the general education program, and to educate students as to the array of campus activities and professional services available. Assignments, classroom exercises, and outside activities assist students in transitioning to university-level work and campus culture, and provides a dynamic atmosphere to build a freshman class community. Even though there are many different seminars dealing with very different "subjects," the overall goal of freshman seminar is to provide the student with a solid and rewarding foundation for academic and personal success.

## Academic Career: Undergraduate

Course Component: Lecture
Grade Component: Letter Grade

## FS 0104 - FIRST YEAR TRANSITION SEMINAR

## Minimum Credits: 1

Maximum Credits: 1
First Year Seminar is designed to transition students to the university academic setting, to introduce students to the general education program, and to educate students as to the array of campus activities and professional services available. Assignments, classroom exercises, and outside activities assist students in transitioning to university-level work and campus culture, and provides a dynamic atmosphere to build a first year class community. Even though there are many different seminars, the overall goal of first year seminar is to provide the student with a solid and rewarding foundation for academic and personal success.

## FS 1494 - UNDERGRADUATE FACULTY ASSISTANT

## Minimum Credits: 1

Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/Audit

## Gender Sexuality \& Women's St

## GSWS 0101 - INTRODUCTION TO GENDER, SEXUALITY, AND WOMEN'S STUDIES

## Minimum Credits: 3

Maximum Credits: 3
The purpose of this course is to provide an interdisciplinary overview of Gender, Sexuality, and Women's Studies. Course content will incorporate a range of conceptual tools and methods to critically analyze the ways in which social and cultural forces shape identity.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Cultures

## Geography

## GEOG 0101 - WORLD REGIONAL GEOGRAPHY

Minimum Credits: 3
Maximum Credits: 3
A systematic treatment of the physical, historical, cultural and economic processes that have shaped global landscapes. Contemporary regional problems and prospects will be emphasized.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Cultures-Global

## GEOG 0102 - GEOGRAPHY OF NORTH AMERICA

## Minimum Credits: 3

Maximum Credits: 3
An analysis of the human and physical landscapes of the United States and Canada. Attention is focused on the resource base, sequence of human settlement, and current regional problems resulting from the complex interplay between people and the environment.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Cultures

GEOG 0197 - DIRECTED STUDY

Minimum Credits: 1
Maximum Credits: 6
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

## GEOG 0210 - PHYSICAL GEOGRAPHY

## Minimum Credits: 3

## Maximum Credits: 3

Introduction to the study of the geographical characteristics and relationships of all phenomena within the earth's physical environment. Emphasis placed on air, land and water distributions and the interactions between people and the physical environment.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SU3 Elective Basis
General Education: Physical Science

## GEOG 1494 - UNDERGRADUATE FACULTY ASSISTANT

## Minimum Credits: 1

## Maximum Credits: 3

The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit

## Geology

## GEOL 0101 - PHYSICAL GEOLOGY

## Minimum Credits: 4

Maximum Credits: 4
This course serves as an introduction to the earth sciences. The lectures and laboratory exercises will cover a broad range of topics related to the physical geology, but also minor aspects of the historical geology. The topics covered include, but not limited to, Maps, Minerals, Rocks, Tectonic activity, Volcanoes, Sediments, Geologic time, Natural resources, Landscapes, Hazards, Life through time, and Evolution, etc. The course has a three (3) hour lab component during which you will be conducting a variety of laboratory exercises which will allow you to review and understand important geologic concepts and processes. Physical Geology is a laboratory science course and satisfies the Physical Science (PH) and science lab requirement for the General Education (GE). The lecture and the laboratory elements are integrated.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Physical Science

## GEOL 0108 - PALEOBIOLOGY

## Minimum Credits: 3

## Maximum Credits: 3

Paleobiology is the study of fossilized animals most of which are now extinct, and their relationships to one another and to their environment. It encompasses the identification (who is it?), taxonomic relationships (who is it related to?), evolutionary history (is it extinct or extant?), ecological relationships (who did it eat? Who was it eaten by?), geologic distribution (when did it live?), behavior (did it live in burrows?), and taphonomy (how did it get fossilized?) of these organisms. GE Life or Physical Science
Academic Career: Undergraduate

Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: CREQ: GEOL 0118
Course Attributes: UPB Life Sci. General Ed. Requirement
General Education: Life Science

## GEOL 0109 - CONCEPTS IN GIS

## Minimum Credits: 3

## Maximum Credits: 3

GIS or Geographic Information System is more than geography, and is certainly more than just making maps. Maps are important and useful tools for many areas of study, from the Sciences, to Humanities, to Political Science, to Medical applications and numerous other fields. In this class students will be introduced to the art of making maps using modern technology along with some old and basic principles. As part of the class students will participate in the "GIS Day" activities
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## GEOL 0112 - INTRODUCTION TO METEOROLOGY

## Minimum Credits: 3

## Maximum Credits: 3

This course provides a broad overview of meteorology. It will impart a knowledge of the processes that produce weather with a focus on the lower atmosphere of Earth. Topics will include: structure and composition of the atmosphere, the Earth/Sun relationship in producing weather and seasons, global circulation and motions of the atmosphere, weather patterns and prediction, severe weather (tornadoes, hurricanes, blizzards, etc.), and other specialized topics in the science (El Nio, air pollution, etc.).
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: MATH 0097 OR HIGHER

## GEOL 0118 - PALEOBIOLOGY LAB

## Minimum Credits: 1

Maximum Credits: 1
In the laboratory, you will learn to identify the basic groups of fossils and describe the relationships to one another and their environment, geologic and geographic distribution (when and where it lived), evolutionary history (is it extinct or extant?), ecological relationships (Who did it eat? Who was it eaten by?) behavior (did it live in burrows?), and taphonomy (how did it get fossilized?). GE Life or Physical Science
Academic Career: Undergraduate
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis
Course Requirements: CREQ: GEOL 0108

## GEOL 0203 - PETROLOGY

Minimum Credits: 4
Maximum Credits: 4
This course will introduce the students to a variety of rock forming minerals, and the rocks formed by those. Rock forming environments will largely discussed. Large portions of the course will be dedicated to rock and mineral identification.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: GEOL 0101 OR ES 0105 and 0107
GEOL 0250 - TOPICS IN GEOLOGY

Minimum Credits: 3
Maximum Credits: 3
The study of a special topic in geology.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## GEOL 1301 - SEDIMENTATION AND STRATIGRAPHY

## Minimum Credits: 4

## Maximum Credits: 4

Sediments and sedimentary rocks represent the largest surface area of the dry land. This course is intended to provide the students with an in depth understanding of how the sediments and sedimentary rock environments form and evolve through time. The course has a three (3) hour lab component during which you will be conducting a variety of laboratory exercises, which will allow you to review and understand important concepts and processes.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Completion of ENG 0101, 0102, FS 0102 and MATH 0098 or higher (or higher would allow for MATH 0110, MATH 0132 or MATH 0140). Also completion of GEOL 0101 OR ES 0105 and 0107.

## GEOL 1302 - PALEOBIOLOGY AND THE HISTORY OF LIFE

## Minimum Credits: 4

Maximum Credits: 4
The history of life is documented by fossils through the past 3.5 billion years. This class intends to present this history of life form a different perspective. How did we got to the current tree of life, are there any missing branches in this tree, and what kind of organisms were our ancestors are just some of the key subjects to be approached.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: ENG 0101, ENG 0102, FS 0102, MATH 0098 OR MATH 0110 or MATH 0132 or MATH 0140, GEOL 0108 and GEOL 0118.

## GEOL 1303 - GEOMORPHOLOGY \& ENVIRONMENTAL SYSTEM

Minimum Credits: 4
Maximum Credits: 4
This course is intended to provide the students with an in depth understanding of how the current landscape came to be, what is its connection to the subsurface environment, and how are the two influencing the human-environment interactions. The course has a three (3) hour lab component during which you will be conducting a variety of laboratory exercises, which will allow you to review and understand important concepts and processes.

## Academic Career: Undergraduate

Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0104 (or FS 0102), and the MATH competency

## GEOL 1307 - HYDROGEOLOGY

## Minimum Credits: 4

Maximum Credits: 4
Water is a precious natural resource, without which there would be no life on Earth. The course is about the study of hydrogeology and the significance of groundwater in the context of increased human pressure onto the natural systems of the planet. Can sustainable development of water resources avoid over-exploitation?
Academic Career: Undergraduate
Course Component: Lecture

Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## GEOL 1310 - STRUCTURAL GEOLOGY

## Minimum Credits: 4

Maximum Credits: 4
The students will gain in-depth knowledge about the internal workings of our planet, and the sub-surface structures of the Earth. How, when, and why certain structures developed will be discussed in class. The course has a three (3) hour lab component during which you will be conducting a variety of laboratory exercises, which will allow you to review and understand important concepts and processes.

## Academic Career: Undergraduate

## Course Component: Lecture

Grade Component: LG/SNC Elective Basis
Course Requirements: Completion of ENG 0101, 0102, FS 0102 and MATH 0098 or higher (or higher would allow for MATH 0110, MATH 0132 or MATH 0140). Also completion of GEOL 0101 OR ES 0105 and 0107.

## GEOL 1320 - ADVANCED GIS

## Minimum Credits: 3

Maximum Credits: 3
This class builds up on the knowledge and skills acquired in the Intro to GIS class. The students will learn the advanced techniques of working with, and manipulating GIS data, not only by building maps but also participating in simulated and real-life projects. As part of the class students will participate in the 'GIS Day' activities.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: ENG 0101, 0102, FS 0104, MATH 0098 OR MATH 0110 or MATH 0132 or MATH 0140, and GEOL 0109
Course Attributes: UPB Computational Sci. General Ed. Requirement
General Education: Computational Sciences

## GEOL 1404 - COAL GEOLOGY

## Minimum Credits: 4

Maximum Credits: 4
This course is intended to provide those associated with the energy, environment, end resources industries with the background to the origins and characteristics of coal together with exploration techniques, including geophysics and hydrogeology. Details of coal mining techniques, resource calculation, alternative uses of coal, and environmental issues will be discussed.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101 , ENG 0102 , FS 0102 , and the MATH competency

## GEOL 1452 - CAPSTONE: GEOLOGY

## Minimum Credits: 2

## Maximum Credits: 2

This two term course sequence involves reading primary literature from the diverse sub disciplines of broader category of Environmental and Earth Sciences and making connections among these and other fields of science. This course enhances scientific writing skills, oral communication and research methods. It involves student-led presentation of published, primary literature on an earth science topic of the student's interest. Students will acquire a greater competence in writing in an advanced, scientific format and synthesizing material from diverse disciplines. The first semester the students will develop proposal for their subject of interest, the second semester the students will conduct research based on their approved proposal from the first semester.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## GEOL 1494 - UNDERGRADUATE FACULTY ASSISTANT

## Minimum Credits: 1

Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit

## GEOL 1497 - DIRECTED STUDY: GEOLOGY

## Minimum Credits: 1

Maximum Credits: 6
Directed study in a specific area of geology. Permission of instructor is required.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

## GEOL 1499 - INTERNSHIP: GEOLOGY

## Minimum Credits: 1

Maximum Credits: 6
The student gains practical experience in applied geology in a professional setting. Work is directed by the employer and evaluated jointly with the faculty supervisor.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102 , FS 0102, and the MATH competency

## German

## GER 0100 - ELEMENTARY GERMAN 1

## Minimum Credits: 3

Maximum Credits: 3
A study of elementary spoken and written German.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Language/Global

## GER 0102 - BEGINNING GERMAN 2

## Minimum Credits: 3

## Maximum Credits: 3

This is the second part of our elementary language course sequence. In these proficiency-oriented courses students begin to learn how to communicate in German. The course emphasizes all four skills - speaking, listening, reading, and writing - and introduces students to the culture of the German-speaking countries. Students will be working towards the A2-level of the Common European Framework of Reference. Students should plan to take either German 0103 or German 0203 during the following semester.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## GER 0197 - DIRECTED STUDY IN GERMAN

Minimum Credits: 1<br>Maximum Credits: 3<br>Independent study in a topic in or about German. Permission of the instructor is required.<br>Academic Career: Undergraduate<br>Course Component: Directed Studies<br>Grade Component: LG/SNC Elective Basis

## History

## HIST 0103 - EUROPE IN THE 18TH CENTURY

## Minimum Credits: 3

Maximum Credits: 3
It was the best of times, it was the worst of times; it was the age of wisdom, it was the age of foolishness; it was the epoch of belief, it was the epoch of incredulity; it was the season of light, it was the season of darkness. There was a king with a large jaw and a queen with a plain face on the throne of England; there was a king with a large jaw and a queen with a fair face on the throne of France. In both countries it was clearer than crystal to the lords of state, preservers of loaves, and fishes that things in general were settled forever. This course surveys the political, economic, social, and cultural history of Europe in the eighteenth century. Focusing on the major transformations of European society from the Age of Absolutism through the Age of Enlightenment to the Age of Revolution, the course explores local and interconnected histories of Britain, France, Spain, Denmark, Sweden, Russia, Austria, and the Dutch Republic. The course engages five major themes: 'Power, Politics, and Warfare', 'Social, Demographic, and Economic Change', 'Culture, Religion, and the Public Sphere', 'European Expansion Overseas', and 'Revolutionary Europe.' Readings include primary and secondary sources. The course is open to students of all levels.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: History

## HIST 0104 - EUROPE IN THE 19TH CENTURY

## Minimum Credits: 3

Maximum Credits: 3
Nineteenth Century Europe was produced by Napoleon, Charles Darwin, Karl Marx, Nietzsche, Otto von Bismarck and Sigmund Freud - small man, monkey man, bearded man, weird man, blood and iron man and shrink man. These are discussed in the appropriate setting.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: History

## HIST 0105 - EUROPE IN THE 20TH CENTURY

## Minimum Credits: 3

Maximum Credits: 3
In this course Europe on the eve of WWI is presented to show how Europe was drawn into the conflict; the war is discussed and the Treaty of Versailles is closely examined to discover if later European developments were directly traceable to that treaty. England and France are studied to see why appeasement (1938) was their only solution to international pressure. The rise of fascism in Italy, Germany, and Spain, and the establishment of communism in Russia are also discussed. The course ends with the outbreak of WWII.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## HIST 0106 - UNITED STATES HISTORY 1

Minimum Credits: 3
Maximum Credits: 3
A survey of U.S. history from the age of discovery to the end of the Civil War. Emphasis will be on the causes of the American Revolution, the political and geographic development of the nation, and the nature of the sectional and economic differences which led to the Civil War.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: History

## HIST 0107 - UNITED STATES HISTORY 2

## Minimum Credits: 3

Maximum Credits: 3
America from reconstruction to the present will be examined. Major topics include the development of the West, urban and industrial development, the rise of America to world power, and the development of major political and socio-economic institutions.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: History

## HIST 0108 - MEDIEVAL EUROPE

## Minimum Credits: 3

Maximum Credits: 3
The Middle Ages was more than knights and castles - swains and serfs - it was a period of power grabbing on a titanic scale, popes, emperors, kings, princes, cardinals, archbishops, mistresses, poisons, intrigues-galore. In the end, Modern Europe as we know it, was emerging.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: History

## HIST 0109 - RENAISSANCE AND REFORMATION IN EUROPE

## Minimum Credits: 3

Maximum Credits: 3
Machiavelli, da Vinci, Erasmus, Duerer, Palestrina, Copernicus, Titian, Michelangelo, Luther, Calvin, Zwingli, Henry VIII, Ignatius Loyola, Charles V, Elizabeth I (good queen Bess), Henry IV ("old chicken pot") of France, Columbus, Cabot, Diaz, .... Charles I (and his head), Savonarola (and his stake), Charles II (and his brood of 365+) are discussed.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: History

## HIST 0128 - GLOBAL HISTORY

## Minimum Credits: 3

## Maximum Credits: 3

This survey course addresses global history from the beginning of "civilization" to the end of the 20th century, focusing on three main themes: the rise of states and the development of modern politics, the development and expansion of trade and commerce, and the development of the world's major cultural groupings and cultural identities. In addition to general chronology of the period, this course explores how the world grew more interconnected over time, and course readings include first-hand accounts of encounters, cooperation, and conflict between different cultural groups.

GE History and Global
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## HIST 0197 - DIRECTED STUDY

Minimum Credits: 1
Maximum Credits: 6
Independent study in a topic in history.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

## HIST 0202 - WORLD WAR I

## Minimum Credits: 3

Maximum Credits: 3
The 1918 Armistice which ended World War I failed to give concrete victory to either side. The treaty of Versailles not only failed to resolve the issues, but proceeded to compound the problem by adding new injustices to old ones. The "twenty-year truce" between the wars is usually studied in an attempt to understand the rise of Hitler, Hitler's redress of the Versailles treaty, and all that followed. It is imperative to understand the causes which enveloped the world in the first World War, the course of the war and all developments which led to that infamous treaty. This course will endeavor to expose all these issues for a better understanding of the First World War and all that followed.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: History

## HIST 0203 - RADICALISM IN THE US

## Minimum Credits: 3

Maximum Credits: 3
This course probes the origins of radical discontent in America from colonial times to the new left and student movements of the 1960's. Particular emphasis will be placed upon pre-Marxian utopian socialism, the Marxian socialist movement around 1900, socialist developments within the labor movement, and the history of the communist party of the U.S. Revolutionary tactics, major historical events, and ideologies will receive approximately equal coverage. Assignments will illustrate particular radical viewpoints.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Attributes: UPB History General Ed. Requirement
General Education: History

## HIST 0205 - THE UNITED STATES IN THE 1930'S: HISTORY THROUGHOUT HOLLYWOOD FILMS

## Minimum Credits: 3

Maximum Credits: 3
A detailed study of social thought in the 1930s particularly relating to the influence of economic and social trends on mass culture. Approximately 12 American commercial films of various genres will be shown, along with selected readings from the period. These are used as an illustration of political, moral, and social thought during the period of America's Great Depression.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: History

## HIST 0206 - WORLD WAR II

Minimum Credits: 3
Maximum Credits: 3
WWI and WWII are increasingly being viewed as one conflict interrupted by a twenty year truce. The view by many is that the issues of 1914 were never fully resolved by the war and further complicated by the 1919 settlement. The shortcomings of 1919 grew increasingly obvious as the 1920s and 1930s progressed. Events seemed to draw the world inextricably toward Sept 1, 1939. WWII is discussed in the global context in which it was fought but concentrates on the European theater. The course ends with Potsdam 1945.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: History

## HIST 0207 - THE UNITED STATES IN VIETNAM

## Minimum Credits: 3 <br> Maximum Credits: 3

Traces the history of American involvement in Vietnam from the end of World War II through the French debacle at Dienbienphu, the partitioning of the country in the 1950's, American troop build-up under Kennedy and Johnson in the 1960's, and the decision to withdraw in the 1970's. American consciousness of the war and some of its effects on American society are examined in a series of books and films by Americans that have the war and its implications as their theme.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: History

## HIST 0208 - AFRICAN-AMERICAN HISTORY

## Minimum Credits: 3

Maximum Credits: 3
Traces the African-American experience from colonial times through the modern civil rights era. Although the primary emphasis in on history, consideration is also given to various facets of African-American culture, particularly literature.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: History

## HIST 0211 - GILDED AGE AND PROGRESSIVE ERA

## Minimum Credits: 3

## Maximum Credits: 3

This course introduces students to major issues in American history from the late nineteenth century though the early twentieth century. Among other topics, it explores the expansion of American industrial power, the rise of modern cities, immigration and demographic transformation, the development of racial segregation in the South, and movements for social justice and economic democracy by immigrants, industrial workers, women, and African Americans.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## HIST 0212 - COLONIAL EMPIRES IN THE MODERN WORLD

## Minimum Credits: 3

## Maximum Credits: 3

This course addresses the chronology of the modern age of empire, beginning with the rise of the British East India Company in the second half of the 18th century and ending with the end of Portuguese rule in Angola in 1975. It addresses issues such as the changing aims of empire building in the 19th and 20th centuries, the experiences of colonized peoples and indigenous responses to colonization, the technological and ideological aspects of imperialism, and the issues of race, gender, power and violence that shaped the colonial experience. GE History
Academic Career: Undergraduate

## HIST 0214 - THE GLOBAL COLD WAR

## Minimum Credits: 3

Maximum Credits: 3
This intermediate-level course addresses major events, figures and themes in the history of the Cold War, with an emphasis on the conflict's global nature. It considers the political, military, social, and cultural history of the Cold War, including questions of hard and soft power, foreign interventions by the superpowers, and nonaligned and third force movements that sought to escape the logic of a world split in two. Finally, it considers how the Cold War continues to shape present-day geopolitics, as well as social and political life in the former western and eastern blocs as well as in "nonaligned" nations.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## HIST 0215 - ENVIRONMENTAL HISTORY OF THE UNITED STATES

## Minimum Credits: 3

Maximum Credits: 3
The course will examine environmentalism in a broad historical sense, from colonial notions about the environment to the present. Topics will include American conceptions of nature, changes in the use of land and other resources, urban and rural environments, and the conservation movements designed to preserve parts of the American landscape and resources therein.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: History

## HIST 0216 - U.S. WOMEN'S HISTORY SINCE 1865

## Minimum Credits: 3

Maximum Credits: 3
This course examines U.S. women's history since 1865 with a special emphasis on how gender constructs affected women's participation in the industrial economy, constrained their educational opportunities, and shaped their family roles. Simultaneously, this course will consider women's efforts to redefine their position in society and lay claim to broad notions of political, economic, and social citizenship.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## HIST 0217 - THE CIVIL WAR AND RECONSTRUCTION

## Minimum Credits: 3

Maximum Credits: 3
During the 1860s, long-standing divisions over the future of slavery in the United States exploded into a bloody and transformative civil war. That war and its contentious aftermath fundamentally re-made the nation's society, culture, and governance in ways that continue to shape our present and future. This course will offer a broad overview of the U.S. Civil War Era, concentrating on the period of the 1840s-80s. We will begin by tracing the long- and short-term causes of the war, from the unresolved contradictions the American Revolution through the dramatic social, technological, economic, and cultural changes of the early 19th century. We examine the war itself, focusing especially on the lived experiences of its diverse participants and analyzing how the war destabilized and destroyed the institution of slavery. A final unit will explore the contested process of postwar Reconstruction as well as the ongoing political struggles over the war's historical memory and meaning.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## HIST 0218 - THE NORTH AMERICAN WEST

Minimum Credits: 3
Maximum Credits: 3
This course offers a survey of the major themes in the history of the North American West from a trans-national perspective. The class follows a rough chronology focusing on three critical and overlapping themes: 1) Cultural encounters in the West, including not only the popularly familiar interactions between Natives and European newcomers, but also among various Euro-American groups, the Spanish-speaking populations of the Southwestern borderlands, and Asian immigrants to the Pacific Coast; 2) The complex relationships between people and the environment, meaning not merely the impact of hunting, logging, mining, and city-building, but also the profound influence of the natural world on the people who lived and worked there; and 3) The cultural symbolism of the West and the Frontier, both as an enduring national icons in the U.S., Canada, and Mexico, and as ideologies that shaped the colonization of the region.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## HIST 1306 - GERMANY FROM 1640

## Minimum Credits: 3

## Maximum Credits: 3

In this course, the emergence of a united Germany will be traced from the confusion of medieval particularism and the disaster wrought by the religious wars of the 16th and 17th centuries. The rise of Russia under Frederick Wilhelm the great elector, French chauvinistic imperialism, the advent of Otto von Bismarck, the Bismarckian Empire's weaknesses, World War I and the rise of Adolph Hitler will be studied. The course will end with the disappearance of Germany in 1945.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency General Education: History

## HIST 1307 - FRANCE SINCE 1789

## Minimum Credits: 3

Maximum Credits: 3
This course concentrates on France since 1789. The revolution, the empire, the restoration, the July monarchy, the second republic, second empire, third republic, WWI France between the wars, WWII, Vichy France, the fourth and finally the fifth republic are dealt with in this study.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency General Education: History

## HIST 1310 - EAST ASIA: CHINA, KOREA, JAPAN

Minimum Credits: 3
Maximum Credits: 3
The aim of this course is to survey the historical development of China, Japan, and Korea in their "classic" times. The first half of the course surveys these areas from the prehistoric era to the intrusion of the West in modern times. The second half is devoted to the impact of Western intrusion upon these cultures, and their metamorphosis either real or imagined - caused by it. The course concludes in the period between the World Wars.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0104 (or FS 0102), and the MATH competency
General Education: History-Global

## Minimum Credits: 3

Maximum Credits: 3
An in-depth study of the United States in World War I and the inter-war period. Major topics include the diplomatic events preceding the World Wars, ballyhoo and reality in the 1920s, causes and effects of the great depression, Franklin D. Roosevelt and the new deal.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency General Education: History

## HIST 1317 - CONTEMPORARY US HISTORY 1941-PRESENT

Minimum Credits: 3
Maximum Credits: 3
Major events and trends of the post-World War II era including the war and its aftermath, the onset of the Cold War, and the domestic and foreign policies of presidential administrations from Truman will be discussed. Some major problems, such as urban decay and civil rights for minorities will be considered in the context of the period.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0104 (or FS 0102), and the MATH competency
Course Attributes: UPB History General Ed. Requirement
General Education: History

## HIST 1318 - ANCIENT GREECE

## Minimum Credits: 3

Maximum Credits: 3
The first half of this course traces man from the caves to the pyramids, to the hanging gardens of Babylon and the Minotaur of Crete. The second half of the course moves from Troy to Periclean Athens and Sparta of Leonidas - marathon, Thermopylae are precursors to Alexander the Great with whom this course ends.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency General Education: History

## HIST 1319 - ANCIENT ROME

## Minimum Credits: 3

Maximum Credits: 3
The first half of Roman history traces Rome from Romulus and Remus (and the she-wolf) through the forty stabs of Caesar the republic shall succumb from a surfeit of Gracci, Mariuses, Sullas, Pompeys, and the like. The second half (the imperial one) succumbs to one too many orgies, poisonings, lions and Christians and Germanic invasions from the North.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency General Education: History

## HIST 1320 - EARLY AMERICAN 1789-1840

## Minimum Credits: 3

Maximum Credits: 3
A study of the rise of American political and constitutional institutions. Special emphasis will be given to the emergence of political parties,
economic policies, the democratic implications of the age of Jackson, and the origin of issues leading to the Civil War.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency General Education: History

## HIST 1321 - THE CIVIL WAR AND RECONSTRUCTION

## Minimum Credits: 3

Maximum Credits: 3
America in the years leading to the Civil War, the war, and the period of reconstruction will be discussed. The full gamut of the social, economic, psychological, constitutional and political factors will be considered.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0104 (or FS 0102), and the MATH competency
Course Attributes: UPB History General Ed. Requirement
General Education: History

## HIST 1322-RISE OF URBAN AMERICA 1877-1917

## Minimum Credits: 3

Maximum Credits: 3
An in-depth study which will include the Industrial Revolution in the United States, the impact of mining, cattle and agriculture "frontiers" on American business, the politics of the gilded age, immigration, the Spanish American War and the emergence of the U.S. As a world power, the populist movement, and the progressive era.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency General Education: History

## HIST 1323 - AMERICA'S GREAT MIGRATION

## Minimum Credits: 3

Maximum Credits: 3
This seminar explores the mass migration of southern African Americans from 1915 to 1975 and examines the resulting transformation of urban black communities in the North and West. We will investigate and compare systems of social control across the twentieth-century United States and consider the myriad and sometimes contrasting ways that African Americans and their allies resisted these systems. Through readings, seminar-style discussions, literature reviews, and a research paper, this course will train you to analyze and evaluate scholarly literature and prepare you for serious research in the humanities and social sciences. This course is especially appropriate for students with aspirations to attend graduate school.
Academic Career: Undergraduate
Course Component: Seminar
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101 , ENG 0102 , FS 0102, and the MATH competency Course Attributes: UPB History General Ed. Requirement

## HIST 1324 - ANCIENT EGYPT

## Minimum Credits: 3

Maximum Credits: 3
Egypt was one of the earliest cradles of civilization. The country's political, social, philosophical and religious contributions profoundly shaped and influenced the emerging Mediterranean World which we have become accustomed to refer to as the Ancient World. Through the millennia that transpired, Egypt passed through its pre-dynastic, old kingdom, feudal age, middle kingdom, Hyksos intrusion, new kingdom, late pharaonic period,

Assyrian conquest, Persian period, Alexandrian liberation, Ptolemaic, Roman and Byzantine periods before the curtain was closed on the Ancient World.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101 , ENG 0102 , FS 0102 , and the MATH competency
General Education: History-Global

## HIST 1327 - RACE AND THE URBAN ENVIRONMENT, 1877-1929

## Minimum Credits: 3

Maximum Credits: 3
This course examines community formation, activism, and race relations in the context of black urbanization in the late nineteenth and early twentieth centuries. Among other topics, we will explore gender and class dynamics in African American communities and consider the development of important organizations such as the National Association of Colored Women, Urban League, NAACP, Universal Negro Improvement Association, and black weekly newspapers.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0104 (or FS 0102), and the MATH competency

## HIST 1328 - FASCISM AND NEO-FASCISM

## Minimum Credits: 3

## Maximum Credits: 3

In the aftermath of the First World War, a new kind of politics emerged in Europe. Fascists advocated unity, discipline, and violence against both internal and external enemies as antidotes to national weakness and decay. In power, they unleashed wars of conquest and unprecedented violence against civilians. What motivated the fascists? How did they take and hold power? How should we understand the continued importance of fascistinspired movements? In this seminar course, we will investigate major events, figures, concepts, and debates about the history of fascism and neofascism. Readings include a core textbook, scholarly articles, and primary documents. Students will produce a substantial original research paper on a subject related to the themes of the course, as well as brief weekly responses to assigned readings. GE History and Global
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: Completion of competency courses (FS 0102, ENG $0101 \& 0102$ ) and MATH 0150 Calculus 2.

## HIST 1329 - MEXICO AND THE UNITED STATES SINCE 1821

Minimum Credits: 3
Maximum Credits: 3
The United States and Mexico are among the world's most deeply connected nations. From the time of their independence, the forces of imperialism, nation-building, trade, investment, migration, cultural exchange, diplomacy, and violence have consistently bound together North America's two largest republics. It has been a complex relationship-often contentious or even hostile, but always critical for both countries. This course will explore these two interwoven national histories from the early nineteenth century to the present. We will examine the most significant historical events and processes linking Mexico and the U.S. over time, while also tracing the roots of their most pressing shared issues today, including migration, the drug wars, border policing, tourism, and trade (legal and otherwise). Along the way, we will compare the historical trajectory of each nation, uncovering their deep and enduring similarities while exploring how and why they have developed so differently. We will situate the history of Mexico and the U.S. within broader trends and processes in global history.

Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## HIST 1449-CAPSTONE 1: RESEARCH METHODS

## Minimum Credits: 3

Maximum Credits: 3
Research methods is the first course in a two-semester capstone sequence. Students are expected to enroll in Capstone 1 as juniors and to take Capstone 2 in the subsequent semester. Capstone 1 introduces students to research methods used by political scientists and historians, focusing on a seminar theme. Students will gain a working knowledge of the theory and practice underlying diverse methods of inquiry. Students will be introduced to computer software used in conducting research. The course will help students to formulate a research question, develop a literature review, and craft a research design for their capstone research papers. Additionally, students will consider career and graduate study opportunities, developing individualized professional development plans.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency, also required is junior status

## HIST 1451 - CAPSTONE 2: HISTORY

## Minimum Credits: 3

Maximum Credits: 3
This course is designed both to supplement and to implement research and writing skills acquired by the senior-level student. Discussions of historical research methods, the importance of historical context and the fallacies of historical writing will comprise the subjects of the first weeks. After that, the class will focus on an historical topic chosen by the instructor.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: HIST or PS 1449

## HIST 1494 - UNDERGRADUATE FACULTY ASSISTANT

## Minimum Credits: 1

Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit

## HIST 1497 - DIRECTED STUDY: HISTORY

Minimum Credits: 1
Maximum Credits: 6
Directed study in history.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101 , ENG 0102 , FS 0102 , and the MATH competency

## HIST 1498 - DIRECTED RESEARCH: HISTORY

Minimum Credits: 1<br>Maximum Credits: 6<br>Independent research on a project in history.<br>Academic Career: Undergraduate<br>Course Component: Directed Studies<br>Grade Component: LG/SNC Elective Basis

## Minimum Credits: 1

Maximum Credits: 6
Practical experience in a professional setting. Work is directed by the employer and evaluated jointly with the faculty supervisor.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101 , ENG 0102 , FS 0102 , and the MATH competency

## Hospitality Management

## HMGT 0101 - INTRODUCTION TO HOSPITALITY MANAGEMENT

## Minimum Credits: 3

Maximum Credits: 3
The course serves as an introduction for the student to the tremendous diversity of the hospitality and tourism industry. The industry will be disaggregated into its component parts with subsequent discussions of the role that each plays. Emphasis will be placed upon the hotel, restaurant and foodservice industries. Tourism will be explored as to its role in shaping these tangible industries.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## HMGT 0197 - DIRECTED STUDY

## Minimum Credits: 1

Maximum Credits: 6
Independent study in a topic in hospitality management.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

## HMGT 0201 - SERVICE INDUSTRY STRUCTURE AND LEADERSHIP

## Minimum Credits: 3

Maximum Credits: 3
Successful leadership as channeled through an organizational structure is a very critical concept in the service industries where the customer is usually present at the point of production of the product. This course will review both the content of structure and leadership as well as the process of utilizing them to successfully direct an organization to its objectives.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## HMGT 0210 - LEGAL ISSUES IN THE HOSPITALITY AND TOURISM INDUSTRY

## Minimum Credits: 3

Maximum Credits: 3
An investigation of the legal issues and responsibilities in the selling of hospitality and travel services to the general public. The various seller/purchaser legal relationships and resultant liabilities will be reviewed. Extensive use of case studies and actual case histories will be presented and their subsequent impact on the industry will be discussed.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

Minimum Credits: 3
Maximum Credits: 3
Foodservice systems will be explored through examining the component parts of a typical foodservice operation. This component parts include: management and organization, procurement, production, distribution, service, maintenance, and sanitation. The course will also explore modern trends in foodservice/restaurant management. All students will be required to sit for the National Restaurant Association serve safe food protection manager certification exam and preparation for upper level food courses. This course is a prerequisite to take HMGT 1330 Principles of Food Prep. Additionally, you will have to pass the National Restaurant Association serve safe food protection manager certification exam
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## HMGT 1310 - HOTEL OPERATIONS

## Minimum Credits: 3 <br> Maximum Credits: 3

Focuses upon the areas of housekeeping, front office, hotel security and engineering. The course explores the interrelationships that exist between these functional areas and how these relationships ultimately support the customer service and profit expectations of the hotel. An emphasis will be placed upon the manner in which these areas must cooperate to attain these broad organizational goals.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## HMGT 1311 - BEVERAGE MANAGEMENT

## Minimum Credits: 3

Maximum Credits: 3
Course will examine management issues in beverage services and products; includes voluntary tasting and evaluation of alcoholic beverage products. Verifiable proof of 21 years of age and permission of instructor required.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: HMGT 0101 and completion of competency courses (FS 0102, ENG 0101, ENG 0102 and Math 0098 or higher).

## HMGT 1320 - HOSPITALITY INFORMATION SYSTEM

## Minimum Credits: 3

Maximum Credits: 3
This course will introduce students to hospitality information systems, including property management systems, restaurant management systems, meeting management, club management, and communication networks.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## HMGT 1330 - PRINCIPLES OF FOOD PREPARATION

## Minimum Credits: 4

Maximum Credits: 4
A study of the various foods, production principles, cooking methods, food storage and equipment utilized in food preparation. Includes both lab and classroom learning opportunities. The classroom component provides the theoretical basis of food types and production processes that will then be demonstrated and experimented with in the lab environment. Requires the purchase of professional uniform and some supplies.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## HMGT 1340 - FOOD AND BEVERAGE COST CONTROL

## Minimum Credits: 3

Maximum Credits: 3
This course emphasizes the theories and techniques that are commonly used in the restaurant industry for controlling food and beverage costs. It emphasizes how controllers, and managers can use these approaches to successfully measure and control food and beverage output. The course will present theories and techniques which will then be applied to a real world context.

## Academic Career: Undergraduate

Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101 , ENG 0102 , FS 0102, and the MATH competency

## HMGT 1370 - HOSPITALITY AND TOURISM MARKETING

## Minimum Credits: 3

Maximum Credits: 3
This course will help students appreciate, develop, and manage marketing in the hospitality and travel industry sectors. The course will introduce basic concepts and skills in tourism marketing, and will address differences between tourism and other industries. Students will learn how marketing managers can position their products or destinations to capture customers.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## HMGT 1380 - SPECIAL EVENTS PLANNING

## Minimum Credits: 3

Maximum Credits: 3
This course introduces students to special event planning processes and techniques. Emphasis is on creating, organizing, identifying sponsors, marketing and implementing large scale community events.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## HMGT 1450 - SPECIAL TOPICS

## Minimum Credits: 3

## Maximum Credits: 3

This is a course that focuses on a special topic in hospitality management.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## HMGT 1451 - CAPSTONE: STRATEGIC MANAGEMENT

## Minimum Credits: 3

Maximum Credits: 3
Through drawing upon both the theoretical knowledge gained through your previous course work as well as the practical exposure of the 800 -hour practicum this course will create an environment where you will explore the linkages, which exist, between the theoretical and the practical. In addition, the course will serve to help prepare you to enter the real world from both a professional and a personal perspective. As a result you should gain a clearer understanding of the attitudes and behaviors that successful individuals in these related industries possess.

## Academic Career: Undergraduate

Course Component: Lecture

## HMGT 1494 - UNDERGRADUATE FACULTY ASSISTANT

## Minimum Credits: 1

Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit

## HMGT 1497 - DIRECTED STUDY: HOSPITALITY MANAGEMENT

## Minimum Credits: 1

Maximum Credits: 6
Directed study in a specific area of hospitality management.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## HMGT 1499 - INTERNSHIP: HOSPITALITY MANAGEMENT

## Minimum Credits: 1

Maximum Credits: 6
Practical experience in business in a professional setting. Work is directed by the employer and evaluated jointly with the faculty supervisor.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit
Course Requirements: Completion of competency courses (ENG 0101, 0102, FS 0102 and MATH 0098 or higher), HMGT 0101, Junior level standing and permission of Program Director
Course Attributes: Undergraduate Internship

## Health Phys \& Recreation Educ

## HPRED 0101 - INTRO TO ATHLETIC TRAINING

Minimum Credits: 3
Maximum Credits: 3
Athletic training is a division of sports medicine that focuses on the care and prevention of athletic injuries. This course provides the student with an introduction to the field of athletic training. Topics include career opportunities, medical terminology, and risk management, mechanisms of injury, injury management skills, and recognition and treatment of common athletic injuries.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## HPRED 0102 - INTRODUCTION TO EXERCISE SCIENCE

## Minimum Credits: 3

Maximum Credits: 3
This courses introduces students to the field of exercise science and the evolution of the profession. Opportunities are provided to identify
characteristics of exercise science professionals, diverse perspectives, and current trends in the field. Emphasis is placed on career planning and employment opportunities.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: Letter Grade

## HPRED 0108 - NUTRITION

## Minimum Credits: 3

## Maximum Credits: 3

An introduction to the processes involved in nourishing the body. Emphasis will include a study of nutrients and their physiological impact and interrelationships within the body, and the quality of diet.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## HPRED 0109 - MEDICAL TERMINOLOGY

## Minimum Credits: 2

Maximum Credits: 2
A study of word origin and structure through the introduction or prefixes, suffixes, root words, plurals, abbreviations and symbols, surgical procedures, medical specialties and diagnostic procedures.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## HPRED 0110 - PRACTICUM IN ATHLETIC TRAINING

Minimum Credits: 3
Maximum Credits: 3
A comprehensive course in the stabilization, taping, and bracing techniques used in athletic training. The course will cover techniques for all areas of the body including the foot, ankle, knee, hip, shoulder, elbow and hand.
Academic Career: Undergraduate
Course Component: Practicum
Grade Component: LG/SNC Elective Basis

## HPRED 0180 - SPORT SAFETY TRAINING

## Minimum Credits: 2

Maximum Credits: 2
Basic first aid and CPR certification for sports professionals and other individuals interested in certification. Basic safety principles to avoid and prevent injuries.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## HPRED 0197 - DIRECTED STUDY

Minimum Credits: 1
Maximum Credits: 6
Directed study in health, physical, and recreation education.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

## HPRED 0202 - PSYCHOLOGY OF SPORT

## Minimum Credits: 3

Maximum Credits: 3
An examination of psychological factors influencing individual behavior and the effects of people on other people in sport experiences. Topics include personality, anxiety, cognition, motivation, aggression, and cohesion.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: Completion of PSY 0101 required for all higher level psychology courses

## HPRED 0206 - EVALUATION AND REHABILITATION OF ATHLETIC INJURY 1

## Minimum Credits: 4

Maximum Credits: 4
An in-depth look at the evaluation and treatment of athletic injuries with a strong focus on the anatomy of the lower extremities.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## HPRED 0207 - EVALUATION AND REHABILITATION OF ATHLETIC INJURY 2

Minimum Credits: 4
Maximum Credits: 4
An in-depth look at the evaluation and treatment of upper extremity and head and neck injuries.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## HPRED 0209 - PERSONAL HEALTH AND WELLNESS

## Minimum Credits: 3

Maximum Credits: 3
The focus of this course is the identification of behavioral and environmental factors that influence health and the effective management of lifestyle choices to promote and maintain optimal personal health and wellness.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## HPRED 0210 - THE GOVERNANCE AND MANAGEMENT OF SPORT

## Minimum Credits: 3

Maximum Credits: 3
An investigation of the scope of the sport and recreation industries, a growing major business enterprise in the world. Attention focuses on how the managerial process relates to sport and recreation organizations, their products, and their services.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## HPRED 0215 - EXERCISE PSYCHOLOGY

## Minimum Credits: 3

Maximum Credits: 3
The course is designed to provide students with an overview and understanding of the theoretical foundations of exercise psychology, current research applications, and implications for practitioners. Students will have the opportunity to apply their knowledge in selected areas within exercise
psychology through class discussions and assignments.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREREQ HPRED 0102

## HPRED 0216 - GROUP EXERCISE LEADERSHIP

## Minimum Credits: 3

## Maximum Credits: 3

This course will provide students with an analysis of the educational concepts, performance techniques, program construction and leadership skills necessary to teach instructor-led group exercise programs and create personal training programs. The course will include a basic study of application of safe and effective exercise methods for all fitness levels. Areas of instruction will include hi/low impact, step training, water exercise, yoga, Pilates, circuit training and indoor cycling.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREREQ HPRED 0102

## HPRED 0220 - MEDICAL ASPECTS IN ATHLETIC TRAINING

## Minimum Credits: 3

Maximum Credits: 3
This course is designed to provide current information about the recognition and treatment practices of general medical conditions of athletes and the physically active. This course also includes the application of pharmacological principles in the treatment of illnesses, injury, and disease of the physically active. Students can expect to develop a more advanced knowledge of medical terminology throughout the course.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: HPRED 0110

## HPRED 0225 - FUNCTIONAL HUMAN ANATOMY

## Minimum Credits: 3

Maximum Credits: 3
The study of the structure and functional significance of the human body- with emphasis on neural, musculoskeletal and cardiopulmonary systems.
The introduction to clinical application of relevant anatomy, with respect to some common conditions seen in the health/medical profession and how it relates to physical activity and exercise will be examined.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: Letter Grade

## HPRED 0250 - SPECIAL TOPICS

## Minimum Credits: 3

Maximum Credits: 3
The study of a special topic in health, physical, and recreation education.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## HPRED 0280 - CLINICAL IN ATHLETIC TRAINING 1

Minimum Credits: 2
Maximum Credits: 2
This clinical field experience will allow each student the opportunity to practice and apply skills associated with this course under the direct
supervision of a clinical instructor within the Pitt-Bradford athletic training department or an affiliated clinical site. Specific skills emphasized but not limited to wound care, ankle taping and wrapping, flexibility techniques, and athletic training room maintenance. The course is restricted to those students seeking certification by the national athletic training association.
Academic Career: Undergraduate
Course Component: Clinical
Grade Component: LG/SNC Elective Basis

## HPRED 0281 - CLINICAL IN ATHLETIC TRAINING 2

## Minimum Credits: 2

## Maximum Credits: 2

This clinical field experience will allow each student the opportunity to practice and apply the skills associated with this course under the direct supervision of a clinical instructor within the Pitt-Bradford athletic training department affiliated clinical site. Specific skills emphasized include, but are not limited to record keeping, vital signs, data entry, proprioceptive exercises, and various taping techniques. This course is restricted to students seeking certification by national athletic training association.
Academic Career: Undergraduate
Course Component: Clinical
Grade Component: LG/SNC Elective Basis

## HPRED 1301 - SPORTS MARKETING

## Minimum Credits: 3

Maximum Credits: 3
A survey of the principles and techniques used by professionals in the areas of sports information, marketing, and promotions. Course content will include the development of media relations and marketing plans, and the utilization of sport specific statistical information unique to athletic programs.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: PR 0101 \& MRKT 1301

## HPRED 1302-THERAPEUTIC MODALITIES

## Minimum Credits: 4

Maximum Credits: 4
A comprehensive course covering the modalities used in the rehabilitation of injuries, with a lab for practical application.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## HPRED 1305-BIOMECHANICS

## Minimum Credits: 3

Maximum Credits: 3
This course is a study of the science of human movement with emphasis upon the structure and functioning of the movement mechanism, mechanical principles underlying human motion, and an analysis of basic motor skills.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101 , ENG 0102 , FS 0102 , and the MATH competency

## HPRED 1306 - EXERCISE PHYSIOLOGY 1

Minimum Credits: 4
Maximum Credits: 4

This course examines physiological changes during exercise, after exercise, and during a training period. It also considers efficiency, needs, and limitation of body systems and their interrelationships.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101 , ENG 0102, FS 0102, and the MATH competency, also required is sophomore status

## HPRED 1307 - PRIN ETHICS \& PRACT IN COACHING

## Minimum Credits: 3

Maximum Credits: 3
This course highlights the role of the coach and the coach's application of selected concepts and principles from psychology, sociology and physiology toward the development of the individual and team for athletic competition in schools and colleges. Special attention is given to an awareness and understanding of the problems associated with motivation and emotion in sport; the learning and improving motor skills; daily, weekly, and seasonal planning; training and conditioning methods; preparation for contests.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## HPRED 1308-COACHING STUDIES

## Minimum Credits: 3

Maximum Credits: 3
Prospective coaches receive instruction in planning, teaching, administrative responsibilities, safety and public relations issues essential to effective coaching. Enroll during term in which selected sport is in season.
Academic Career: Undergraduate
Course Component: Practicum
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## HPRED 1309-THERAPEUTIC EXERCISE

## Minimum Credits: 4

Maximum Credits: 4
A comprehensive course covering the exercises used in the rehabilitation of injuries with a lab for practical applications.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101 , ENG 0102 , FS 0102 , and the MATH competency

## HPRED 1310 - ETHICS AND LEADERSHIP IN SPORT

## Minimum Credits: 3

Maximum Credits: 3
An in-depth analysis of ethics and leadership as they pertain to professionals and managers within the realm of sport and recreation.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101 , ENG 0102 , FS 0102 , and the MATH competency

## HPRED 1320 - PRINCIPLES OF STRENGTH TRAINING AND CONDITIONING

Minimum Credits: 3
Maximum Credits: 3

This course is designed to enhance the student's current level of knowledge and expertise to an advanced level in neuromuscular exercise physiology. The course will examine anaerobic energy systems and emphasis will be placed on high intensity exertion. The course will focus on the assessment and implementation of training programs with strong emphasis being placed on the areas of resistance training, plyometric training, flexibility, speed and agility training.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency, also required is junior status

## HPRED 1380 - CLINICAL IN ATHLETIC TRAINING 3

## Minimum Credits: 2

## Maximum Credits: 2

This clinical field experience will allow each student the opportunity to practice and apply the skills associated with this course under the direct supervision of a clinical instructor within the Pitt-Bradford athletic training department or an affiliated clinical site. Specific skills emphasized but are not limited to ankle, knee, hip evaluation/injuries, protective equipment fabrication, crutch fitting and gaits, and taping techniques. This course is restricted to those seeking certification by the national athletic training association.
Academic Career: Undergraduate
Course Component: Clinical
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## HPRED 1381 - CLINICAL IN ATHLETIC TRAINING 4

## Minimum Credits: 2

Maximum Credits: 2
This clinical field experience will allow each student the opportunity to practice and apply the skills associated with this course under the direct supervision of a clinical instructor within the Pitt-Bradford athletic training department or an affiliated clinical site. Specific skills emphasized but are not limited to shoulder, elbow, wrist and hand evaluation/injuries, rehabilitation and principle, head injuries and girth measurement. This course is restricted to those seeking certification by the national athletic training association.
Academic Career: Undergraduate
Course Component: Clinical
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## HPRED 1401 - LEGAL LIABILITY IN SPORTS

## Minimum Credits: 3

Maximum Credits: 3
Issues in legal liability in sport, recreation, and exercise science. Negligence liability; control of amateur, professional, school and recreational sport, violence/crowd control; product liability; risk management; and other selected current issues will be investigated.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: MGMT 1304

## HPRED 1405 - RES METH IN SPORTS \& EXERCS SCI

## Minimum Credits: 3

Maximum Credits: 3
An introduction to research methods used in the design, analysis and interpretation of research in sport and exercise science.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## HPRED 1407 - FACILITY AND EVENT MANAGEMENT

## Minimum Credits: 3

Maximum Credits: 3
Examines the practical techniques required for successful management of sport facilities and events held in these facilities. Topics of particular interest include facility planning, security, sponsorships and concessions, etc.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## HPRED 1410 - EXERCISE PRESCRIPTION

## Minimum Credits: 3

Maximum Credits: 3
This course focuses on development of exercise prescription for health-related fitness with specific respect for the following: cardio respiratory endurance, muscular strength and endurance, flexibility and optimal body composition, client screening, and fitness assessment following the American college of sports medicine guidelines included.

## Academic Career: Undergraduate

Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency, also required is junior status

## HPRED 1415 - CLINICAL EXERCISE PHYSIOLOGY 1

## Minimum Credits: 3

Maximum Credits: 3
Examines cardiovascular dynamics with reference to the microanatomy, electrophysiology, and pathologies of this system, and the role of exercise both in assessing cardio vascular pathology and determining functional capacity for exercise prescription. Emphasis is on non-invasive methods.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## HPRED 1416 - CLINICAL EXERCISE PHYSIOLOGY

## Minimum Credits: 3

Maximum Credits: 3
This course examines those special cases in which one must consider adjusting either the exercise testing or prescription of unusual circumstances. Clinical descriptions of 'special populations' will be presented as well as the impact on exercise. Special cases/issues considered will include diabetes, heart disease, hypertension, obesity, respiratory disorders, arthritis, cancer, HIV, asthma and children.

## Academic Career: Undergraduate

Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREREQ HPRED 0102

## HPRED 1420 - REHABILITATION MANAGEMENT AND ADMINISTRATION

## Minimum Credits: 3

## Maximum Credits: 3

This is a course that focuses on the administrative, organizational, and management of a rehabilitation facility with an emphasis on the state and federal regulations and guidelines, human resource policy, patient rights, medical insurance policy and procedure, medical record-keeping strategies, budgeting process, facility architectural considerations, and applied legal concepts related to healthcare.
Academic Career: Undergraduate
Course Component: Lecture

## HPRED 1425 - SPORT ECONOMICS AND FINANCE

## Minimum Credits: 3

Maximum Credits: 3
Provides students with an improved understanding of issues relating to sport economics and finance. Students will expand their skills in financial analysis and planning while simultaneously developing an appreciation for the financial decision-making process in the complex world of sport. The course will include the following topics: organization, accountability, financial planning, purchasing, revenue streams, sponsorship, licensing, franchises, box office operations, retail operations, customer retention, fund-raising, financial risk management and payroll procedures.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101 , ENG 0102, FS 0102, and the MATH competency

## HPRED 1430 - WORKSITE HEALTH PROMOTION

## Minimum Credits: 3

Maximum Credits: 3
This course is designed to provide current information in the area of wellness and health promotion, specifically in the workplace. Course content will be structured around the need for health promotion, models of health promotion and planning health promotion programs in the workplace.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREREQ: HPRED 1306

## HPRED 1435 - EXERCISE ASSESSMENT

## Minimum Credits: 3

Maximum Credits: 3
This course will study exercise testing for cardiorespiratory fitness and disease diagnosis. Knowledge of ECG abnormalities and cardiorespiratory pharmacology applied to clinical exercise testing. The course will also cover body composition and musculoskeletal fitness testing.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: Letter Grade
Course Requirements: PREREQ HPRED 0102

## HPRED 1440 - EXERCISE PRESCRIPTION FOR SPECIAL POPULATIONS

## Minimum Credits: 3

Maximum Credits: 3
This course evaluates the impact of physical activity and exercise on youth, older adults, and individuals with various health conditions and controlled diseases. Changes that occur during growth, development, maturation and the aging process in relation to physical activity/ exercise are examined. Pathophysiology, disease management, medications, exercise testing, and acute responses and chronic adaptations of physical activity/exercise programs for individuals with various health conditions and controlled diseases are identified.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: Letter Grade
Course Requirements: PREREQ: HPRED 1306

## HPRED 1450 - TOPICS IN SPORTS AND RECREATION MANAGEMENT

## Minimum Credits: 3

Maximum Credits: 3
The advanced study of a special topic in sports and recreation management.

Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## HPRED 1451 - CAPSTONE: ATHLETIC TRAINING

## Minimum Credits: 3

Maximum Credits: 3
A comprehensive look at the issues concerning the field of athletic training. Including current trends, new technology and equipment, professional development, legal and ethical issues, and BOC exam preparation.
Academic Career: Undergraduate
Course Component: Seminar
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101 , ENG 0102 , FS 0102 , and the MATH competency

## HPRED 1452 - CAPSTONE: SPORT \& RECREATN MGMT

## Minimum Credits: 3

Maximum Credits: 3
Through class discussions and the process of writing a formal research paper, the students learn to integrate and critically evaluate their academic and practical experiences in sports and recreation management.
Academic Career: Undergraduate
Course Component: Seminar
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## HPRED 1453 - CAPSTONE: EXERCISE SCIENCE

## Minimum Credits: 3

Maximum Credits: 3
The capstone experience is a culmination of coursework in exercise science. It provides the opportunity to critically analyze and conduct contemporary research, practice in a clinical setting, evaluate the current and future trends in the discipline and discuss personal and professional challenges that will exist following commencement.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: Letter Grade
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## HPRED 1480 - CLINICAL IN ATHLETIC TRAINING 5

## Minimum Credits: 2

Maximum Credits: 2
This clinical field experience will allow each student the opportunity to demonstrate and develop proficient psycho motor skills within the domains of athletic training organization/administration and education/guidance. This clinical field experience will allow each student to practice and apply the skills associated with this course. Skills empha sized but not limited to inventory, budgeting, pharmacology, supervision and scheduling. This course is restricted to those seeking certification by the national athletic training association.
Academic Career: Undergraduate
Course Component: Clinical
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101 , ENG 0102 , FS 0102 , and the MATH competency

## HPRED 1481 - CLINICAL IN ATHLETIC TRAINING 6

Minimum Credits: 2
Maximum Credits: 2

This clinical field experience will allow each student the opportunity to practice and apply the skills associated with this course under the direct supervision of a clinical instructor within the Pitt-Bradford athletic training department or an affiliated clinical site. Specific skills emphasized but are not limited to design and implementation of strength and conditioning programs, and lumbar and cervical spine evaluations/injuries. This course is restricted to those seeking certification by the national athletic training association.
Academic Career: Undergraduate
Course Component: Clinical
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## HPRED 1494 - UNDERGRADUATE FACULTY ASSISTANT

## Minimum Credits: 1

Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit

## HPRED 1495-HEALTHCARE IN AMERICA: THE RURAL URBAN DIVIDE

## Minimum Credits: 1

Maximum Credits: 1
This course/program will provide students with the opportunity to explore the American healthcare system through a historical and politico- socioeconomical lens and the relationships therein that have led to the current trends seen in the division between rural and urban healthcare delivery. This course is meant to give students a well-rounded understanding of the American healthcare system, by studying it in both rural (Bradford) and urban settings (Pittsburgh)
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: Letter Grade

## HPRED 1496 - FIELDWORK IN SPORT AND RECREATION MANAGEMENT

## Minimum Credits: 1

Maximum Credits: 3
The course and experience is designed to provide students the opportunity to put into practice the concepts and principles that frame the sport and recreation management major. Students will perform a total of 135 hours of study, which may be broken down into multiple areas of study (3-1 credit increments or 1-3 credit placement), working in areas of interest which relate to sport and recreation management in a field placement setting. Agency placements may include any agency directly related to a student's academic studies and career options. Students must fill out a field placement application (copy included with this proposal) and submit it to their program director.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## HPRED 1497 - DIR STUDY: HLTH, PHYSCL \& REC

## Minimum Credits: 1

Maximum Credits: 6
Independent study in the area of health, physical education, and recreation.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## Minimum Credits: 1

Maximum Credits: 6
Independent research on a project in physical education.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

## Health and Physical Education (K-12)

## HPEDU 0102 - CURRENT ISSUES IN COMMUNITY HEALTH

## Minimum Credits: 3

Maximum Credits: 3
This course will provide an introduction to current perspectives and research findings about health problems that face individuals and communities. The focus will be primarily on population-based and prevention-oriented issues. The role of government and nongovernmental agencies in terms of community heath will also be explored. Current issues and future challenges facing community health in our country and world will be emphasized along mental health issues and death and dying.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## HPEDU 0197 - DIRECTED STUDY: HEALTH AND PHYSICAL EDUCATION

Minimum Credits: 1
Maximum Credits: 6
Lower level directed study in a topic in health and physical education.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

## HPEDU 0201 - INDIVIDUAL, TEAM, AND RECREATIONAL SPORTS

## Minimum Credits: 3

## Maximum Credits: 3

This course will cover the theory and practice of teaching individual, team and recreational sports. The skills and content of a wide variety of sports will be covered. Students will be expected to participate in related physical activity and in simulated/clinical teaching requirements. This course will also provide students with the rules, safety measures, etiquette, strategies and techniques of various activities. The students will learn how to develop teaching techniques focused on physical activities that can be pursued throughout the lifespan.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: EDUC 0235

## HPEDU 1300 - ADAPTIVE PHYSICAL EDUCATION

## Minimum Credits: 3

Maximum Credits: 3
This course will provide an understanding of the nature, behavioral characteristics and motor limitations of various exceptionalities. It will also provide the student with the skills needed to prepare meaningful individualized movement experiences for individuals with special needs.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: UPB Admission to Education is required in order to register for this course.

## HPEDU 1320 - TEACHING HEALTH

## Minimum Credits: 2

Maximum Credits: 2
This course will cover the foundations of health promotion. A survey of health promotion concepts is covered, as well as issues related to the theory and practice of health promotion. Models of health behavior are utilized. Controversial issues in the field of health promotion are also discussed.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: UPB Admission to Education is required in order to register for this course.

## HPEDU 1321 - METHODS OF TEACHING HEALTH

## Minimum Credits: 3

Maximum Credits: 3
This course will cover the foundations of health promotion. A survey of health promotion concepts is covered, as well as issues related to the theory and practice of health promotion. Models of health behavior are utilized. Controversial issues in the field of health promotion are also discussed, including performance enhancing drugs as well as recreational drugs. Also, a big portion of this class will focus on mental health and mental health issues. Several different methods of teaching will be addressed along with many resources, handouts and classroom activities students can use in the Health classroom. Students will also practice peer-teaching to enhance their classroom skills and critique each other.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: UPB Admission to Education is required in order to register for this course.

## HPEDU 1330-MOTOR BEHAVIOR

## Minimum Credits: 3

Maximum Credits: 3
This course investigates the sequence of development of fundamental motor patterns and perceptual motor skills, factors influencing this development, assessment and evaluation, and methods and activities for developing these skills.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## HPEDU 1335 - EDUCATIONAL MOVEMENT CONCEPTS

## Minimum Credits: 2

Maximum Credits: 2
This course helps students achieve individual competency in the fundamental areas of educational gymnastics, educational games, and educational/creative dance through the constructivist use of cooperative learning, problem solving, and guided discovery. Students in this course will apply educational movement concepts to developmentally appropriate interdisciplinary educational games using peer collaboration in problem solving, application of class information in class lab projects, and post-lesson reflections. Students will also apply movement concepts to academic learning using brain-based learning research, action-based learning and inclusion movement experiences for the Pre-K \& elementary-level child.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101 , ENG 0102 , FS 0102 , and the MATH competency

## HPEDU 1336 - EDUCATIONAL MOVEMENT CONCEPTS

## Minimum Credits: 3

Maximum Credits: 3
This course helps students achieve individual competency in the fundamental areas of educational gymnastics, educational games, and educational/creative dance through the constructiveness use of cooperative learning, problem solving, and guided discovery. Students in this course
will apply educational movement concepts to developmentally appropriate interdisciplinary educational games using peer collaboration in problem solving, application of class information in class lab projects, and post-lesson reflections. Students will also apply movement concepts to academic learning using brain-based learning research, action-based learning and inclusion movement experiences for the Pre-K \& elementary-level child.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0104 (or FS 0102), and the MATH competency

## HPEDU 1400 - METHODS OF TEACHING PHYSICAL EDUCATION

## Minimum Credits: 3

Maximum Credits: 3
This course will cover curriculum planning and the methods of instruction for teaching personal and community health and physical education in elementary and secondary schools. The needs of special populations will also be addressed.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: UPB Admission to Education is required in order to register for this course.

## HPEDU 1451 - CAPSTONE: HEALTH AND PHYSICAL EDUCATION

## Minimum Credits: 3

Maximum Credits: 3
This course provides a critical perspective of how theoretical concepts and integrated knowledge can be applied to the teaching of physical education. Emphasis in on a coherent understanding of the interrelationships that exist in the sub-disciplines of physical education and other subject areas.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: UPB Admission to Education is required in order to register for this course.

## HPEDU 1494 - UNDERGRADUATE FACULTY ASSISTANT

## Minimum Credits: 1

Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit

## HPEDU 1497 - DIRECTED STUDY: HEALTH AND PHYSICAL EDUCATION

Minimum Credits: 1
Maximum Credits: 6
Directed study in a topic in health and physical education.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## Interdisciplinary Arts

## IA 0101 - ARTS AWARENESS

Minimum Credits: 3
Maximum Credits: 3
This arts seminar course encourages an integrated exploration and analysis of the arts. The course is taught in the hybrid format in which students attend a weekly seminar, engage in online course activities, and attend arts events. An important focus of the course is on various interdisciplinary approaches to the arts. Several events are made available for the students each term through the college's spectrum series.
Academic Career: Undergraduate
Course Component: Seminar
Grade Component: LG/SNC Elective Basis
Course Attributes: Hybrid
General Education: Arts

## IA 0197 - DIRECTED STUDY

Minimum Credits: 1
Maximum Credits: 6
Directed or independent study of a topic in interdisciplinary arts. Permission of the instructor required.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

## IA 1310 - PRINCIPLES OF ARTS MANAGEMENT

## Minimum Credits: 3

Maximum Credits: 3
This course is a survey of the arts-presentation business in the United States with a focus on the nonprofit section of the industry, that is, the companies that present theater, dance, classical and popular music, the visual arts, the spoken arts, and emerging digital arts, among others. In short, the course focuses on the business side of show business.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: Letter Grade
Course Requirements: Prerequisite: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, MATH competency and Junior Level Status

## IA 1451 - CAPSTONE: INTERDISCIPLINARY ARTS

## Minimum Credits: 3

Maximum Credits: 3
Students will explore the relationships between the fine and performing arts in the form of seminars to be offered at the start of the course. These seminars will provide the stimulus for the students' final projects that will emphasize and express their major area of study. The directed project will also focus on creative and critical thinking.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## IA 1494 - UNDERGRADUATE FACULTY ASSISTANT

## Minimum Credits: 1

Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: Undergraduate

## IA 1497 - DIRECTED STUDY: INTERDISCIPLINARY ARTS

Minimum Credits: 1<br>Maximum Credits: 6<br>Directed study in a topic in art, music, theatre, writing or combination thereof.<br>Academic Career: Undergraduate<br>Course Component: Directed Studies<br>Grade Component: LG/SNC Elective Basis<br>Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## IA 1499 - INTERNSHIP IN INTERDISCIPLINARY ARTS

## Minimum Credits: 1

Maximum Credits: 6
The course is designed to provide interdisciplinary, experientially based education in the area of interdisciplinary arts. The objective is to place student interns in an arts-related environment for an in-depth learning experience.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## International Studies

## INTS 0112 - JAPANESE LANGUAGE AND CULTURE

Minimum Credits: 3<br>Maximum Credits: 3<br>This course provides an introduction to modern Japanese culture. Beginning with a brief overview of Japanese political-religious history, it will explore ethnic groups and social stratification, geography, economics, and social conventions: manners, food, holidays, home life, work expectations, sports and leisure. Basic conversational Japanese language instruction will be utilized throughout the course. Recommended for anyone who will be visiting or working in Japan, or who is interested in cross-cultural communication and comparisons.<br>Academic Career: Undergraduate<br>Course Component: Lecture<br>Grade Component: LG/SNC Elective Basis<br>General Education: Cultures-Global

## INTS 0115 - INTRODUCTION TO CHINESE CULTURE AND LANGUAGE

Minimum Credits: 3
Maximum Credits: 3
This course surveys Chinese culture and language in both verbal and nonverbal communication forms. Beginning with a brief overview of political and historical differences between the people's republic of China and the republic of China (Taiwan), it explores elements of Chinese family structures, food, traditional holidays, social art, and leisure activities. Basic conversational Chinese language and rudiments of traditional Chinese writing will be utilized throughout the course. This course is recommended for anyone who is interested in China/Taiwan, as well those interested in cross-cultural communication.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Attributes: UPB Cultures General Ed. Requirement, UPB Global General Ed. Requirement
General Education: Cultures-Global

## INTS 0120 - INDIA AND ITS CULTURES

Minimum Credits: 3
Maximum Credits: 3
This is a basic course on India. Students will be introduced to many aspects of Indian culture, and will study and discuss the social customs, rituals, religions, and diversity in the country students will also touch upon gender issues and politics. Students will come to understand why India has become a dominant global presence in recent years.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Attributes: UPB Cultures General Ed. Requirement, UPB Global General Ed. Requirement General Education: Cultures-Global

## INTS 0250 - SPECIAL TOPICS

Minimum Credits: 3
Maximum Credits: 3
This course is the study of a special topic in international studies.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Attributes: UPB Cultures General Ed. Requirement, UPB Global General Ed. Requirement
General Education: Cultures-Global

## INTS 1494 - UNDERGRADUATE FACULTY ASSISTANT

## Minimum Credits: 1 <br> Maximum Credits: 3

The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit
Course Attributes: Undergraduate Internship

## INTS 1496 - INTERNATIONAL STUDIES ABROAD

## Minimum Credits: 1

Maximum Credits: 12
This course provides opportunities for topics and experiences in international studies abroad.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: Completion of competency courses (FS 0102, ENG 0101 \& 0102) and MATH 0150 Calculus 2.

## INTS 1497 - DIRECTED STUDY IN INTERNATIONAL STUDIES

Minimum Credits: 1
Maximum Credits: 6
This course is an independent study in a topic in international studies.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## INTS 1499 - INTERNSHIP: INTERNATIONAL STUDIES

Minimum Credits: 1
Maximum Credits: 6
An internship is a special type of independent study in which the student works in a professional setting. The project is designed in consultation with the academic supervisor and conducted under the guidance of an on-site supervisor. An internship allows students to apply the knowledge and skills learned in the classroom to practical situations in a professional setting. Internships are assigned on the basis of student's interest and the availability of positions.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## Japanese

## JPNSE 1494 - UNDERGRADUATE FACULTY ASSISTANT

## Minimum Credits: 1

Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit

## Learning Skills

## LNSK 0001 - GANNON CONSORTIUM AGREEMENT

## Minimum Credits: 0

Maximum Credits: 0
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: Satisfactory/No Credit

## LNSK 0102 - PRE-NURSING ENRICHMENT

## Minimum Credits: 3

Maximum Credits: 3
A course offered to enrich pre-nursing students, offering an introduction to the field of nursing and its various disciplines. The course will expose students to the art and science of nursing prior to student nursing application deadline in the spring. Includes college nursing application preparation including personal statement writing, classroom and clinical nursing observation experiences; and faculty and student mentoring. Presented to students with an interest in the nursing profession.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## LNSK 0180 - LEADERSHIP DEVELOPMENT

## Minimum Credits: 1

Maximum Credits: 1
This course will permit students to examine various aspects of personal responsibility, leadership and professionalism. Designed to develop skills which will help them in future leadership positions both in college and beyond. Included will be discussions on human development, leadership theories, communication skills, small group dynamics, leadership strategies and styles, the nature of power and influence, values and ethics, and critical thinking skills.

Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: TRiO SSS enrollment required

## LNSK 0250 - COLLEGE SUCCESS SPECIAL TOPICS

Minimum Credits: 1
Maximum Credits: 1
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## Mathematics

## MATH 0097 - COLLEGE ALGEBRA 1

## Minimum Credits: 3

Maximum Credits: 3
This course covers the real number system, operations on real numbers, basic algebraic concepts and operations-simplifying and factoring-, solving linear and quadratic equations and linear inequalities, solving systems of linear equations in two variables, and graphing linear functions.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: Letter Grade

## MATH 0098 - COLLEGE ALGEBRA 2

## Minimum Credits: 3

Maximum Credits: 3
The topics covered in college algebra 2 are functions-linear, radical, quadratic, exponential, and logarithmic- and their graphs, rational expressions, linear and compound inequalities, rational exponents, solving systems of linear equations, and solving quadratic equations. This course does not meet the mathematics competency at the Pittsburgh campus.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: Letter Grade
General Education: Math Competency

## MATH 0110 - FUNDAMENTALS OF MATHEMATICS

## Minimum Credits: 3

Maximum Credits: 3
Introduction to calculators, statistics, probability, matrices, consumer mathematics, and elementary difference equations exhibiting chaos, and decision making are among the topics covered.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: Letter Grade
Course Attributes: UPB Math Competency General Ed. Requirement
General Education: Math Competency

## MATH 0132 - PRECALCULUS

## Minimum Credits: 4

Maximum Credits: 4
The topics include intermediate algebra, functions and graphs, polynomial functions, rational functions, inverse functions, logarithmic and exponential functions and trigonometry.

Academic Career: Undergraduate
Course Component: Lecture
Grade Component: Letter Grade
Course Requirements: PREQ: Completion of MATH 0097 College Algebra I
Course Attributes: UPB Cmp Sci-Math compt. General Ed. Requirement
General Education: Comp Sci or Math Compt

## MATH 0133 - STATISTICS

## Minimum Credits: 4

Maximum Credits: 4
This is an introductory statistics course and covers methods of summarizing data, descriptive statistics, probability and probability distributions, sampling distributions, the central limit theorem, hypothesis testing, analysis of variance, and regression analysis. Mathematical derivations and formulas are stressed.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: MATH 0098 College Algebra II
Course Attributes: UPB Computational Sci. General Ed. Requirement
General Education: Computational Sciences

## MATH 0135 - DISCRETE MATHEMATICS

## Minimum Credits: 3

Maximum Credits: 3
The study of computer-oriented mathematical concepts and structures including sets, relations and maps, counting, Boolean algebra (propositional calculus and circuits), trees and graphs, and recursion. Other mathematical concepts studied are the binary number systems, computer codes, ETS computer arithmetic, logic, truth tables, algorithms, sets and relations.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Computational Sciences

## MATH 0136-APPLIED CALCULUS

## Minimum Credits: 4

Maximum Credits: 4
An introduction to differential and integral calculus with an emphasis on applications. Topics include determining limits both graphically and algebraically, differentiation and integration of polynomial, logarithmic, and exponential functions, and introductory optimization. Additional topics may include special integration techniques and basic multivariable integration.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: MATH (98) or higher
Course Attributes: UPB Cmp Sci-Math compt. General Ed. Requirement
General Education: Comp Sci or Math Compt

## MATH 0140 - CALCULUS 1

## Minimum Credits: 4

Maximum Credits: 4
This course is the first term of a three-term sequence required of all engineering, mathematics, and chemistry majors, and is the basic course leading to all advanced courses in mathematics and the natural and physical sciences. A study of the derivative, trigonometric functions, the integral, and applications of the derivative and the integral.
Academic Career: Undergraduate
Course Component: Lecture

## MATH 0142 - TECHNICAL CALCULUS I

## Minimum Credits: 4

Maximum Credits: 4
The first term of a two-term sequence required of all engineering technology students. It includes study of the derivative, trigonometric functions, the integral, and engineering applications of the derivative and the integral. Prerequisite: MATH 0132 (with a grade of C- or better) or appropriate Math placement.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: Letter Grade
Course Requirements: PREQ: Completion of MATH 0132 with a grade of C- or better

## MATH 0143 - TECHNICAL CALCULUS II

## Minimum Credits: 4

Maximum Credits: 4
The second term of a two-term sequence required of all engineering technology students. It includes the study of transcendental functions (exponential and trigonometric functions) and inverse trigonometric functions, integration techniques (integration by parts and by substitution), separable and first-order differential equations, improper integrals, infinite series, polar coordinates and graphs, partial derivatives and double integrals. Prerequisite: MATH 0142 with a grade of C- or better .
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Completion of MATH 0142 with a grade of C- or better

## MATH 0144 - TECHNICAL DIFFERENTIAL EQUATIONS

## Minimum Credits: 4

Maximum Credits: 4
Topics may include modeling with differential equations real world phenomena (such as motion of particles, mixing substances at various rates, money in a savings account, population growth). Emphasize will be placed on 1'st and 2'nd order linear ODEs. Methods for solving them (e.g. variation of parameters, undetermined coefficients) will be studied. Some practical situations (e.g. coupled springs, electrical circuits, mixing problems concerning connected tanks) leading to systems of first order differential equations will be investigated. Basic aspects of Matrix Theory (i.e. matrix representation of a linear system of equations, matrix-vector multiplication, reduce row echelon form of a matrix, determinant of a matrix, inverse of a matrix, eigenvalues and eigenvectors of a matrix) will be presented, as they will ultimately serve the purpose of solving linear systems of 1'st order differential equations. Methods for solving linear systems of first order differential equations (variation of parameters, undetermined coefficients) will be discussed as well. Reducing a higher-order linear ODE to a linear system of 1'st order ODEs, and numerical methods (Euler and Runge-Kutta) may also be discussed, as time permits. Software will be used to enhance the understanding of the topics.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Completion of MATH 0143

## MATH 0150 - CALCULUS 2

## Minimum Credits: 4

Maximum Credits: 4
Continuation of MATH 0140. The subject matter in this course includes differentiation of logarithms, exponential inverse trigonometric and hyperbolic function, techniques of integration, infinite series, power series, plane curves, and the polar coordinates.
Academic Career: Undergraduate
Course Component: Lecture

## MATH 0197 - DIRECTED STUDY

## Minimum Credits: 1

Maximum Credits: 6
Independent study in a topic in mathematics. Permission of the instructor is required.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

## MATH 0201 - CALCULUS 3

Minimum Credits: 4
Maximum Credits: 4
This course is a continuation of MATH 0150 . The topics included are as follows: space geometry and vectors, vector analysis of curves, differential and integral calculus of several variables, applications of partial derivatives, divergence, green's and stokes' theorems, and differential equations.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: MATH 0150 Calculus II

## MATH 0202 - ORDINARY DIFFERENTIAL EQUATIONS

Minimum Credits: 3
Maximum Credits: 3
Topics include: basic concepts, autonomous equations, first order linear, second order with forcing functions, quantitative and qualitative aspects, power series solutions, models and applications.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: Completion of MATH 0150 Calculus II is required

## MATH 0206 - LINEAR ALGEBRA

## Minimum Credits: 3

Maximum Credits: 3
This is a study of systems of linear equations using the concepts of vector spaces, linear transformations, matrices, eigenvalues, and eigenvectors.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ:MATH 0140 Calculus I

## MATH 0207-GEOMETRY

## Minimum Credits: 3

Maximum Credits: 3
A review of the axiomatic system of Euclidean geometry is covered.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: MATH 0140 Calculus I
General Education: Computational Sciences

## MATH 0252 - MATH TOPICS

## Minimum Credits: 1

Maximum Credits: 3
Special topic in Math
Academic Career: Undergraduate
Course Component: Practicum
Grade Component: Satisfactory/No Credit

## MATH 1303 - MATHEMATICAL MODELING

Minimum Credits: 3
Maximum Credits: 3
An application of mathematical concepts and computer software to the formulation of models and solutions related to criteria ranking, decision making, biological modeling, environmental modeling, and optimization.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: ENG 0101, ENG 0102, MATH 0202 and 0206

## MATH 1309 - APPLIED PROBLTY AND STATISTICS

Minimum Credits: 4
Maximum Credits: 4
Topics covered include random events and probability spaces, conditional probability, random variables, distribution of random variables, parameters of distributions, and the Central Limit Theorem. Additional topics include populations, samples, inferential statistics, point and interval estimation, hypothesis testing, and regression analysis. Some work will be done with a statistics computer package.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: Completion of competency courses (FS 0102, ENG 0101 \& 0102) and MATH 0150 Calculus 2.

## MATH 1312 - ABSTRACT ALGEBRA \& NUMBER THEORY

Minimum Credits: 4
Maximum Credits: 4
This course introduces some basic concepts in abstract algebra and number theory, and will cover groups, rings, fields, polynomials and properties of integers.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: ENG 0101, ENG 0102, MATH 0150 and MATH 0135

## MATH 1317 - INTRODUCTION TO SCIENTIFIC COMPUTATION

Minimum Credits: 3
Maximum Credits: 3
An introduction to scientific programming with the Python language and the use of computational mean-field, stochastic, dynamical, and statistical methods in the physical and life sciences. Prerequisite MATH 0201.GE Computational Sciences
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prereq: MATH 0201 \& competency

## MATH 1318 - INTRODUCTION TO ANALYSIS

## Minimum Credits: 4

Maximum Credits: 4
This is a follow-up to the three term calculus sequence of courses and designed to bridge the gap between the intuitive calculus and the advanced mathematics. Through a rigorous treatment of the basic concepts already encountered in calculus, students will learn how to express themselves mathematically and in particular, to write mathematical proofs.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: ENG 0101, ENG 0102 and MATH 0201

## MATH 1320-OPERATIONS RESEARCH

Minimum Credits: 3
Maximum Credits: 3
An introduction to operations research with emphasis on economic applications. The topics include formulation and solving of linear programming problems, integer programming, simplex method, transportation problems, and network models.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: ENG 0101, ENG 0102 and MATH 0206

## MATH 1452-CAPSTONE: MATHEMATICS

## Minimum Credits: 1

Maximum Credits: 3
A year-long project in mathematics supervised by a member of the mathematics faculty.
Academic Career: Undergraduate
Course Component: Seminar
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## MATH 1494 - UNDERGRADUATE FACULTY ASSISTANT

## Minimum Credits: 1

Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit

## MATH 1497 - DIRECTED STUDY: MATH

## Minimum Credits: 1

Maximum Credits: 6
Directed study in a specific area of math. Permission of the instructor is required.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

MATH 1498 - DIRECTED RESEARCH: MATH

Minimum Credits: 1
Maximum Credits: 6
Independent research in mathematics supervised by a member of the mathematics faculty.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

## MATH 1499 - INTERNSHIP: MATHEMATICS

Minimum Credits: 1
Maximum Credits: 6
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## Mechanical Engineering

## ME 0024 - INTRODUCTION TO MECHANICAL ENGINEERING DESIGN

Minimum Credits: 3
Maximum Credits: 3
Provides knowledge of design graphics and manufacturing processes by conventional and computer-aided methods.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: Letter Grade
Course Requirements: PREQ: ENGR 0015 and MATH 0140 and PHYS 0201

## ME 0051 - INTRO THERMO-FLUIDS ENGINEERING

## Minimum Credits: 3

Maximum Credits: 3
Synthesis of the basic concepts from thermodynamics and fluids, including: properties of pure substances, first law analysis, and introduction to the second law; fluid statics, kinematics, stress, and viscosity; and control volume analysis of the conservation equations.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: Letter Grade

## Mechanical Engr and Materials Science and Engr

## MEMS 0051 - INTRODUCTION TO THERMODYNAMICS

## Minimum Credits: 3

Maximum Credits: 3
Basic concepts and interlinking relationships of thermodynamics, fluid mechanics and heat transfer; fluid statics; system and control volumes; thermodynamic properties; work and heat; first law of thermodynamics for control mass and control volume; integral forms of conservation of mass and momentum.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: Letter Grade
Course Requirements: PREQ: CHEM 0101 and MATH 0150 and PHYS 0202
Mechanical Engineering Tech

## MET 1301 - FLUID MECHANICS

Minimum Credits: 3
Maximum Credits: 3
Fluid mechanics is developed using the general energy principle equations. Includes fluid pressure, fluid pumps and motors, laminar and turbulent flow, fluid friction, pipeline systems, open channel flow, flow measurement devices, and fluid dynamics.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: MATH 0143 AND PHYS 0102

## MET 1302 - FLUID MECHANICS LAB

## Minimum Credits: 1

Maximum Credits: 1
Laboratory work with a "team concept" approach to the performance of experiments involving the application of principles and theory associated with the lecture course in fluid mechanics. Corequisite MET
Academic Career: Undergraduate
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis
Course Requirements: CREQ: MET 1301

## MET 1303 - THERMODYNAMICS

## Minimum Credits: 3

Maximum Credits: 3
The course presents a macroscopic approach to the laws of thermodynamics, including the first and second laws, energy, and entropy. Material covered includes basic concepts and definitions, systems and control volumes, properties of pure substances, and work and heat.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: CHEM 0101 and MATH 0143 and PHYS 0102

## MET 1304 - MATERIALS

## Minimum Credits: 3

## Maximum Credits: 3

Topics include the concepts of atomic, crystal, micro-and macro-structure, and their control and effects on chemical, electrical, magnetic, optical, and mechanical properties. Property modification by heat treatment and processing are considered. The focus is on a design-led approach to materials selection.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: CHEM 0101 and ET 0202

## MET 1305-MATERIALS LAB

## Minimum Credits: 1

Maximum Credits: 1
Through a series of experiments and exercises, understanding of key materials are developed. Particular focus is placed on structure/property relationships in materials used in manufacturing and design.
Academic Career: Undergraduate
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis
Course Requirements: CREQ: MET 1304

## Minimum Credits: 2

Maximum Credits: 2
Students will be introduced to solid modeling using SOLIDWORKS. This course stresses modeling techniques to create parametric solid models with appropriate design intent and parametric relations. Investigating models to assess model relationships, history, measurements, and mass properties are important aspects of the course. Fundamentals of creating detail drawings of parts as well as creating assemblies from parts and generating assembly drawings for the designs are also covered.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: ET 0101 and ET 0205

## MET 1308 - ENGINEERING MEASUREMENTS I

Minimum Credits: 4
Maximum Credits: 4
A laboratory-oriented course dealing with various techniques available to measure basic performance parameters, such as temperature, pressure, velocity, acceleration, strain, and force. Lectures cover data reduction techniques and instrument theory. Computerized data acquisition topics are introduced and used in the laboratory experiments.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Preq: MATH 0143 and PHYS 0102

## MET 1309 - ENGINEERING MEASUREMENTS II

## Minimum Credits: 2

Maximum Credits: 2
The application of techniques presented in Engineering Measurements 1 to measure and evaluate the performance of various types of mechanical systems in heat transfer, thermodynamics, and machine design. Computerized data acquisition skills are used in making measurements.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: MET 1308 Engineering Measurements I

## MET 1400 - MANUFACTURING PROCESSES


#### Abstract

Minimum Credits: 3 Maximum Credits: 3 An overview of a variety of manufacturing processes that are available to process materials into finished products. Special emphasis is placed on the traditional processes from the standpoint of production methods, sequence of operations, and economic decision analysis. The impact of computeraided design (CAD) using numerically controlled equipment to perform these processes and the integration of automation into manufacturing processes is introduced. Academic Career: Undergraduate Course Component: Lecture Grade Component: LG/SNC Elective Basis Course Requirements: PREQ: ET 0202 Strength of Materials and ET 0203 Strength of Materials lab


## MET 1401 - MANUFACTURING LAB

## Minimum Credits: 1

## Maximum Credits: 1

Through a series of experiments and exercises, understanding of key CNC concepts are developed. Particular focus is placed on computer/machine tool inter-relationships in manufacturing and design.
Academic Career: Undergraduate

## MET 1402 - HEAT TRANSFER

## Minimum Credits: 3

Maximum Credits: 3
A study of the fundamental laws of conduction, convection, and radiation. Application of the basic laws to heat exchanger design. Analytical and graphical methods are applied to one- and two-dimensional heat transfer.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: MET 1301 Fluid Mechanics and MET 1303 Thermodynamics

## MET 1403 - APPLIED THERMODYNAMICS

## Minimum Credits: 3

Maximum Credits: 3
Serves as an application-oriented extension of thermodynamics. Areas covered include steam and gas turbine design, fluid machinery, compressors, internal combustion engines and cycles, refrigeration and air-conditioning systems, and humidity measurements
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: MET 1303 Thermodynamics

## MET 1404 - MACHINE DESIGN

## Minimum Credits: 3

## Maximum Credits: 3

This course covers the fundamentals of engineering design. Design methodology and synthesis techniques are discussed. Structural and machine elements are designed, with consideration given to stress, weight, and size limitations for various applications.

## Academic Career: Undergraduate

Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: MET 1304 Materials

## MET 1405 - FINITE ELEMENT METHOD

## Minimum Credits: 3

## Maximum Credits: 3

The fundamentals of the finite element method are presented. A general approach to the development of the finite element method is given. Emphasis is placed on understanding the theory behind the development of the method as well as applications to engineering analysis problems. Application problems are solved by the students during the course on a general-purpose finite element analysis program. Students perform model generation, solution, and post processing of results.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: MET 1306 Computer-Aided Drafting And Engineering (CADD/CAE) and ET 0205 Engineer Design

## MET 1406 - SENIOR PROJECT PROPOSAL

## Minimum Credits: 1

Maximum Credits: 1
Students are organized into project teams, various project ideas are considered, a final project topic is chosen and researched, and a formal proposal is written and presented. This course should be taken the semester prior to the senior design project course. Senior status is required.

Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: UPB SR.Mech.Engineering Tech

## MET 1407 - SENIOR DESIGN PROJECT

Minimum Credits: 3
Maximum Credits: 3
Applies previously learned material-such as motion and forces in mechanisms, fluid power systems, and mechanical components analysis-to a design. Project involves design of a new or modified mechanical system with demonstrated feasibility. Senior status required.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: MET 1406 Senior Project Proposal

## MET 1450 - SPECIAL TOPICS IN MECHANICAL ENGINEERING TECHNOLOGY

Minimum Credits: 3
Maximum Credits: 3
Course will explore a special topic in the Mechanical Engineering Technology field
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## MET 1499 - INTERNSHIP MECHANICAL ENGINEERING TECHNOLOGY

Minimum Credits: 1
Maximum Credits: 6
Practical experience in Engineering in a professional setting. Work is directed by the employer and evaluated jointly with the faculty supervisor. Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit

## Management

## MGMT 0110 - PRINCIPLES OF MANAGEMENT

## Minimum Credits: 3

Maximum Credits: 3
This introductory course focuses on the basic management functions in business. The emphasis is on developing leadership, team work, and communication skills. Topics covered include management theory, planning, organizing, leading, motivating, controlling, as well as management ethics, change, and global perspectives.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## MGMT 0197 - DIRECTED STUDY

## Minimum Credits: 1

Maximum Credits: 6
Independent study in a topic in management. Permission of the instructor is required.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

## MGMT 1301-ORGANIZATIONAL BEHAVIOR

## Minimum Credits: 3

Maximum Credits: 3
(Cross-listed with SOC 1305) explains fundamental tasks, processes, and dynamics common to all organizations, with emphasis on behavioral science applications. Focus is on individual, interpersonal, and group behavior within organizations, and the interplay of human, technological, and structural factors.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## MGMT 1303-BUSINESS ETHICS

## Minimum Credits: 3

Maximum Credits: 3
This course is an examination of business ethics from both an organizational and individual perspective. Students will examine the role of the socially responsible organization, as well as individual conduct in business settings.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: UL and MGMT 0110

## MGMT 1304 - BUSINESS LAW

## Minimum Credits: 3

Maximum Credits: 3
A survey of the legal process and a study of the principles and precepts of business law, contracts, property, sales, negotiable instruments, partnerships, and corporations.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## MGMT 1305-INTERNATIONAL MANAGEMENT

## Minimum Credits: 3

Maximum Credits: 3
Examines the theory of international trade; the social, cultural, and political dimensions of the international environment; the history of the U.S. In international business; and trends in international competition. An understanding of international operations is developed through case studies and discussion of marketing, financial, and strategic issues.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0104 (or FS 0102), and the MATH competency
Course Attributes: UPB Global General Ed. Requirement
General Education: Global

## MGMT 1309- MANAGING WORKPLACE DIVERSITY

## Minimum Credits: 3 <br> Maximum Credits: 3 <br> In-depth exploration of how gender, ethnicity, sexual orientation, age, physical ability and size impact employee experiences and management's challenges and opportunities for developing the talents of diverse workers.

Academic Career: Undergraduate

## MGMT 1320 - HUMAN RESOURCES MANAGEMENT

## Minimum Credits: 3

Maximum Credits: 3
This course provides an introduction to the field of personnel/human resources management and investigates the role of the personnel manager in the public, non-profit, and private sectors. A variety of personal functions and procedures are examined, including: HR planning, job analysis, performance appraisal, personnel selection, orientation, training and development, compensation and benefits, labor-management relations, civil service systems, EEO/AA, and the impact of legislation of the personnel function.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## MGMT 1401 - BUSINESS SOCIETY \& INT'L ENVRN

## Minimum Credits: 3

Maximum Credits: 3
Business is no longer defined simply as an economic entity, and successful managers must concern themselves with more than economic issues. Using a wide variety of cases, this course examines the political, social, environmental, ethical, and international dimensions of the business environment.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0104 (or FS 0102), and the MATH competency

## MGMT 1449-ECONOMIC SYSTEMS

## Minimum Credits: 3

Maximum Credits: 3
Studies the operation and management of a wide spectrum of economic systems, ranging from the mixed-market systems of the United States, Europe, and Japan to the central-command systems of the former Soviet bloc and the emerging markets in southeast Asia.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## MGMT 1450-TOPICS IN MANAGEMENT

## Minimum Credits: 3

Maximum Credits: 3
The advanced study of a special topic in business management.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101 , ENG 0102, FS 0102, and the MATH competency

## MGMT 1451 - CAPSTONE: STRATEGIC MANAGEMENT

## Minimum Credits: 3

Maximum Credits: 3
An integrating course coordinating concepts from the functional business fields into overall organizational plans and strategies. A focus on real world
business applications is an integral part of the course. Numerous cases are analyzed.
Academic Career: Undergraduate
Course Component: Seminar
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: ACCT 0201, FIN 1301, MRKT 1301

## MGMT 1494 - UNDERGRADUATE FACULTY ASSISTANT

## Minimum Credits: 1

## Maximum Credits: 3

The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit

## MGMT 1496-COOPERATIVE EDUCATION IN MANAGEMENT

## Minimum Credits: 3

Maximum Credits: 12
This course offers students an opportunity to integrate classroom instruction with a practical supervised work experience.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: Completion of competency courses (FS 0102, ENG $0101 \& 0102$ ) and MATH 0150 Calculus 2.

## MGMT 1497 - DIRECTED STUDY: MANAGEMENT

Minimum Credits: 1
Maximum Credits: 6
Directed study in a specific area of management.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## MGMT 1498 - DIRECTED RESEARCH: MANAGEMENT

Minimum Credits: 1
Maximum Credits: 6
Independent work on a project in business management, super vised by a member of the business faculty.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## MGMT 1499- INTERNSHIP: MANAGEMENT

## Minimum Credits: 1

Maximum Credits: 6
Practical experience in business in a professional setting. Work is directed by the employer and evaluated jointly with the faculty supervisor.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit

## Military Science \& Tact

## MILS 0101 - FOUNDATIONS OF OFFICERSHIP


#### Abstract

Minimum Credits: 1 Maximum Credits: 1 The purpose of this course is to introduce cadets to fundamentalcomponents of service as an officer in the United States Army. These initial lessons form the building blocks of progressive lessons in values, fitness, leadership, and officership. Additionally, the semester addresses 'life skills' including fitness, communications theory and practice (written and oral), and interpersonal relationships.


Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Physical Education

## MILS 0102 - BASIC LEADERSHIP


#### Abstract

Minimum Credits: 1 Maximum Credits: 1 This course, available to all students without any military obligation, is designed as a classroom and optional lab course that stresses the fundamentals of leadership. The course goals are to provide students with leadership and managerial skills that will prepare them to lead in public service, business, military and community organizations. This course uses a military model to train leadership development through an introduction to problem solving, effective decision-making techniques, and delves into several aspects of communication and leadership theory. The classroom instruction is reinforced throughout the course with practical exercises that focus on individual leadership skills, as well as motivational techniques and how to function as an effective member of a team.

Academic Career: Undergraduate Course Component: Lecture Grade Component: LG/SNC Elective Basis


## MILS 0103 - FOUNDATIONS OF OFFICERSHIP LAB

## Minimum Credits: 1

Maximum Credits: 1
The purpose of this course is to introduce cadets to fundamental components of service as an officer in the United States Army. These initial lessons from the building blocks of progressive lessons in values, fitness, leadership, and officership. Additionally, the semester addresses 'life skills' including fitness, communications theory and practice (written and oral), and interpersonal relationships.GE: Physical Education
Academic Career: Undergraduate
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis

## MILS 0104 - BASIC LEADERSHIP LAB

## Minimum Credits: 1

Maximum Credits: 1
This course, available to all students without any military obligation, is designed as a classroom and optional lab course that stresses the fundamentals of leadership. The course goals are to provide students with leadership and managerial skills that will prepare them to lead in public service, business, military and community organizations. This course uses a military model to train leadership development through an introduction to problem solving, effective decision-making techniques, and delves into several aspects of communication and leadership theory. The classroom instruction is reinforced throughout the course with practical exercises that focus on individual leadership skills, as well as motivational techniques and how to function as an effective member of a team.

Academic Career: Undergraduate
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis

## MILS 0197 - DIRECTED STUDY: MILITARY SCIENCE

Minimum Credits: 1
Maximum Credits: 6
Directed study in a specific area of military science.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

## MILS 0200 - INDIVIDUAL LEADERSHIP STUDIES

## Minimum Credits: 2

## Maximum Credits: 2

Building upon the fundamentals introduced in the MS I year, this instruction delves into several aspects of communication and leadership theory. The use of practical exercise is significantly increased and cadets are increasingly required to apply communications and leadership concepts. Virtually the entire semester teaches critical "life skills". The relevance of these life skills to future success in the Army is emphasized throughout the course.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## MILS 0203 - INDIVIDUAL LEADERSHIP STUDIES LAB

## Minimum Credits: 1

## Maximum Credits: 1

Building upon the fundamentals introduced in the MILS I year, thisinstruction delves into several aspects of communication and leadership theory. The use of practical exercise is significantly increased and cadets are increasingly required to apply communications and leadership concepts. Virtually the entire semester teaches critical 'life skills.' The relevance of these life skills to future success in the Army is emphasized throughout the course.
Academic Career: Undergraduate
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis

## MILS 0204 - LEADERSHIP AND TEAMWORK LAB

## Minimum Credits: 1

Maximum Credits: 1
The final semester of the Basic Course focuses principally on officership, providing an extensive examination of the unique purpose, roles and obligations of commissioned officers. It includes a detailed look at the origin of our institutional values and their practical application in decisionmaking and leadership.
Academic Career: Undergraduate
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis

## MILS 0205 - LEADERSHIP AND TEAMWORK

## Minimum Credits: 2

Maximum Credits: 2
The second semester of the Basic Course focuses principally on officership, providing an extensive examination of the unique purpose, roles and obligations of commissioned officers. It includes a detailed look at the origin of our institutional values and their practical application in decisionmaking and leadership.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## MILS 1300 - LEADERSHIP AND PROBLEM SOLVING

Minimum Credits: 3
Maximum Credits: 3

Curriculum is intended to build leadership competencies and facilitate the cadet's initial demonstration of individual leadership potential at Leader Development and Assessment Course (LDAC), while also preparing cadets for their future responsibilities as officers. Instruction uses small unit infantry tactics as the context for the development and assessment of leadership. While a measure of technical and tactical understanding of small unit operations is necessary, the focus of instruction is on the leadership competencies.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## MILS 1302 - LEADERSHIP AND ETHICS

## Minimum Credits: 2

Maximum Credits: 2
This course includes opportunities to plan and conduct individual and collective skill training for offensive operations to gain leadership and tactical experience. It synthesizes the various components of training, leadership and team building. Upon completion of this course, cadets will possess the fundamental confidence and competence of leadership in a small unit setting.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## MILS 1303 - LEADERSHIP AND PROBLEM SOLVING LAB

Minimum Credits: 1<br>Maximum Credits: 1<br>Curriculum is intended to build leadership competencies and facilitate the cadet's initial demonstration of individual leadership potential at Leader Development and Assessment Course (LDAC), while also preparing cadets for their future responsibilities as officers. Instruction uses small unit infantry tactics as the context for the development and assessment of leadership. While a measure of technical and tactical understanding of small unit operations is necessary, the focus of instruction is on the leadership competencies.<br>Academic Career: Undergraduate<br>Course Component: Credit Laboratory<br>Grade Component: LG/SNC Elective Basis

## MILS 1304 - LEADERSHIP AND ETHICS

## Minimum Credits: 3

Maximum Credits: 3
MILS 1304 continues focusing on doctrinal leadership and tactical operations at the small-unit level. This critical semester synthesizes the various components of training, leadership and team building. The curriculum complements progression through the cadet's campus evaluation process and in the culminating event of the year in the field training environment of the Leader Development and Assessment Course (LDAC).
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## MILS 1305 - LEADERSHIP AND ETHICS LAB

## Minimum Credits: 1

Maximum Credits: 1
MILS 1305 (lab) continues focusing on doctrinal leadership and tactical operations at the small-unit level. This critical semester synthesizes the various components of training, leadership and team building. The curriculum complements progression through the cadet's campus evaluation process and in the culminating event of the year in the field training environment of the Leader Development and Assessment Course (LDAC).
Academic Career: Undergraduate
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis
MILS 1400 - LEADERSHIP AND MANAGEMENT

Minimum Credits: 3
Maximum Credits: 3
The Advanced Course concentrates on leadership, management and ethics, and begins the final transition from cadet to lieutenant. The course focuses cadets, early in the year, on attaining knowledge and proficiency in several critical areas they will need to operate effectively as Army officers. These areas include: Coordinate Activities with Staffs, Counseling Theory and Practice within the "Army Context", Training Management, and Ethics.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## MILS 1403 - LEADERSHIP AND MANAGEMENT LAB

## Minimum Credits: 1

Maximum Credits: 1
The Advanced Course concentrates on leadership, management and ethics, and begins the final transition from cadet to lieutenant. The course focuses cadets, early in the year, on attaining knowledge and proficiency in several critical areas they will need to operate effectively as Army officers. These areas include: Coordinate Activities with Staffs, Counseling Theory and Practice within the "Army Context," Training Management, and Ethics.
Academic Career: Undergraduate
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis

## MILS 1404 - OFFICERSHIP

Minimum Credits: 3
Maximum Credits: 3
The final course focuses on completing the transition from cadet to lieutenant. The course starts with a foundation in the legal aspects of decisionmaking and leadership. Following modules reinforce the organization of the Army and introduce how the Army organizes for operations from the tactical to strategic level. Instruction on administrative and logistical management focuses on the fundamentals of soldier and unit level support. The final module focuses on the process of changing duty stations and reporting to a new unit. The Capstone Exercise requires the cadets, both individually and collectively, to apply their knowledge to solve problems and confront situations commonly faced by junior officers.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## MILS 1405 - OFFICERSHIP LAB

## Minimum Credits: 1

Maximum Credits: 1
The final lab focuses on completing the transition from cadet to lieutenant. The course starts with a foundation in the legal aspects of decisionmaking and leadership. Following modules reinforce the organization of the Army and introduce how the Army organizes for operations from the tactical to strategic level. Instruction on administrative and logistical management focuses on the fundamentals of soldier and unit level support. The final module focuses on the process of changing duty stations and reporting to a new unit. The Capstone Exercise requires the cadets, both individually and collectively, to apply their knowledge to solve problems and confront situations commonly faced by junior officers.
Academic Career: Undergraduate
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis

## MILS 1494 - UNDERGRADUATE FACULTY ASSISTANT

## Minimum Credits: 1

Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.

Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit

## MILS 1497 - DIRECTED STUDY: MILITARY SCIENCE

Minimum Credits: 1
Maximum Credits: 6
Military science directed study in a topic in military science.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101 , ENG 0102 , FS 0102 , and the MATH competency

## Management Information Systems

## MIS 0103 - COMPUTER APPLICATIONS FOR MANAGEMENT

## Minimum Credits: 3

Maximum Credits: 3
Introductory exploration of microcomputing and its application to core business functions. Topics include software operating systems, the world wide web, spreadsheet applications, database management systems and presentation software.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## MIS 0197 - DIRECTED STUDY

## Minimum Credits: 1

Maximum Credits: 7
Independent study in a topic in management information systems. Permission of the instructor is required.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

## MIS 0208 - BUSINESS INFORMATION SYSTEMS

## Minimum Credits: 3

## Maximum Credits: 3

Emphasizes the strategic use of computers, information systems and the internet to increase business competitiveness. Topics include: development and use of management information systems, decision support systems, business processing re-engineering, enterprise resource planning, data warehousing and data mining as well as electronic commerce.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## MIS 1494 - UNDERGRADUATE FACULTY ASSISTANT

## Minimum Credits: 1

Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: Undergraduate

## MIS 1497 - DIRECTED STUDY: MGMT INFO SYS

Minimum Credits: 1
Maximum Credits: 6
Independent study in a topic in management information systems. Permission of the instructor is required.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## MIS 1498 - DIR RESEARCH: MGMT INFO SYS

## Minimum Credits: 1

Maximum Credits: 6
Independent work on a project in the management information systems supervised by a member of the business faculty.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## MIS 1499 - INTERNSHIP: MGMT INFO SYSTEMS

Minimum Credits: 1
Maximum Credits: 6
Practical experience in the management of information systems in a professional setting. Work is directed by the employer and evaluated jointly with the faculty supervisor.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit

## Marketing

## MRKT 1301 - PRINCIPLES OF MARKETING

## Minimum Credits: 3

Maximum Credits: 3
This course introduces students to marketing as an integral component of an effective business strategy to build valuable business partnerships and profitable customer relationships. Topics covered include the marketing environment, managing market information, consumer behavior, market segmentation, branding strategy, product development, pricing, distribution, integrated marketing communication, and marketing ethics.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: UL and MGMT 0110

## MRKT 1310 - MARKETING THE NEW VENTURE

## Minimum Credits: 3

Maximum Credits: 3
Examines and applies the emerging form of marketing specifically used by small ventures. Its approach to marketing is formulated around six core elements: innovation, calculated risk-taking, resource leveraging, strategic flexibility, customer "intensity," and the creation of industry change.
Academic Career: Undergraduate
Course Component: Lecture

## MRKT 1405 - MARKETING MANAGEMENT

## Minimum Credits: 3

Maximum Credits: 3
In this course, students apply key concepts, analytic tools, and strategic approaches developed in previous marketing courses to successful marketing decision making. Specific problems associated with customer relationship management, advancement in technology, global marketing, and brand building are examined. Case study analysis is used extensively.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: MRKT 1301 Introduction to Marketing and completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## MRKT 1410 - MARKETING RESEARCH

## Minimum Credits: 3

Maximum Credits: 3
This course presents an overview of marketing methodology, techniques, and issues. Survey design, data collection and analysis, interpretation of findings, and presentation of results are emphasized. Students make extensive use of Microsoft excel for data analysis in this course.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: a course in statisitcs and completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## MRKT 1415-CONSUMER BEHAVIOR

## Minimum Credits: 3

Maximum Credits: 3
This course examines the fundamental areas of consumer decision-making processes within the context of an overall marketing strategy. Macro socio-cultural factors are examined along with a broad range of micro psychological influences on consumer behavior outcomes and choices. Consumer welfare, consumer research methodology, and marketing regulations are also discussed.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: MRKT 1301 Introduction to Marketing and completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## MRKT 1420 - INTERNATIONAL MARKETING

## Minimum Credits: 3

Maximum Credits: 3
This course examines the international application of fundamental marketing principles. This includes social and cultural dimensions, economic environments, as well as political and legal considerations. Other topics include approaching global markets, utilizing a global marketing mix, and executing global strategic leadership.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: MRKT 1301 Introduction to Marketing and completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency
Course Attributes: UPB Global General Ed. Requirement
General Education: Global
MRKT 1450 - TOPICS IN MARKETING

Minimum Credits: 3
Maximum Credits: 3
The advanced study of a special topic in marketing.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## MRKT 1494 - UNDERGRADUATE FACULTY ASSISTANT

## Minimum Credits: 1

Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit

## MRKT 1497 - DIRECTED STUDY: MARKETING

Minimum Credits: 1
Maximum Credits: 6
Directed study in a specific area of management. Permission of the instructor is required.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: Letter Grade

## MRKT 1498 - DIRECTED RESEARCH: MARKETING

Minimum Credits: 1
Maximum Credits: 6
An in-depth investigation of an issue in the student's area of interest. Topic, research procedure, and progress are discussed in meetings with the supervising professor.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## MRKT 1499 - INTERNSHIP: MARKETING

Minimum Credits: 1
Maximum Credits: 6
Practical experience in marketing in a professional setting. Work is directed by the employer and evaluated jointly with the faculty supervisor.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit

## Music

## MUSIC 0101 - ELEMENTS OF MUSIC

Minimum Credits: 3
Maximum Credits: 3

Musical notation, scales, intervals, harmonic structures, and their application in performance, with emphasis on vocal and keyboard sight reading.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Arts

## MUSIC 0102 - INTRODUCTION TO MUSIC

## Minimum Credits: 3

## Maximum Credits: 3

Teaches the student how to listen to music. The fundamentals of music with applications to the formal designs of instrumental compositions and dramatic effects of vocal music are examined. Prepares students for study in the history of music and enables them to listen perceptively and creatively.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Arts

## MUSIC 0109 - GLOBAL MUSIC SURVEY

## Minimum Credits: 3

## Maximum Credits: 3

An introduction to world music traditions lying outside the classical music cannon. Through hands-on demonstration, listening, reading, and concert attendance, students will gain familiarity with diverse traditions such as Indonesian, Indian, Chinese, Japanese, Latin American, African, and Arab music. Also studied will be the social function music fulfills in different cultures and how styles have evolved as traditions mingle and influence one another. No prior musical knowledge required.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Arts-Global

## MUSIC 0195 - APPLIED MUSIC

## Minimum Credits: 1

Maximum Credits: 1
Private applied music lessons are available in piano, voice, guitar, and all instruments of the orchestra. Students may arrange to study privately without academic credit, or may audition for acceptance into this credit-bearing course. A student may opt to study a different instrument in succeeding semesters. This course may be repeated for credit but not more than three credits may count toward the ia major.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: Letter Grade

## MUSIC 0197 - DIRECTED STUDY

Minimum Credits: 1
Maximum Credits: 3
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## MUSIC 0214 - VOCAL ARTS ENSEMBLE

## Minimum Credits: 1

Maximum Credits: 1
A small, student-only vocal ensemble. Via weekly rehearsals and coaching, students work toward two to three short performances per semester. These range from informal recitals to public fundraisers and campus events. Some students will have the opportunity to perform as soloists or in duos
or trios.
Academic Career: Undergraduate
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis

## MUSIC 0215 - DIGITAL MUSIC CREATION

## Minimum Credits: 3

Maximum Credits: 3
Dance music, hip-hop, R\&B, pop, indie, all of these (and more) make use of the techniques of digital music creation. Students interested in creating their own digital music can enroll in this hands-on course to begin their own exploration of music software and hardware. Using programs like Audacity, Ableton Live, and Reason, students will complete a series of creative projects as they learn to record and manipulate their own sounds and songs. This class satisfies a GE: Arts requirement.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Arts

## MUSIC 0260 - MUSIC IN FILM AND GAMING

## Minimum Credits: 3

Maximum Credits: 3
Music is central to our experience of films and gaming, though we may not even notice it is there. In this class, students will explore the different styles and techniques composers use to score different media and how careful placement of music moves a narrative forward, establishing setting, character, plot, and more. Classics of the film and game catalog will be examined alongside contemporary hits. No prior musical training is required.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Attributes: UPB Arts General Ed. Requirement
General Education: Arts

## MUSIC 1339-MUSICAL STYLES

## Minimum Credits: 3

Maximum Credits: 3
A more detailed exploration of art music repertoire, with emphasis on societal context, compositional technique, and present-day relevance. The subject matter of the course varies from semester to semester, and may focus on particular composers (e.g., Haydn, Mozart, and Beethoven), stylistic epochs (e.g., Romanticism), or locations (e.g. American music).
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0104 (or FS 0102), and the MATH competency
Course Attributes: UPB Arts General Ed. Requirement
General Education: Arts

## MUSIC 1401 - ADVANCED PRACTICUM IN MUSIC

## Minimum Credits: 3

Maximum Credits: 3
Students will undertake substantial musical project in an area of special interest to them. The area may be any sub-discipline within music in which the instructor is comfortable directing a project, including, but not limited to, music composition (acoustic or electroacoustic, any genre), performance, theory, history/musicology, conducting and ethnomusicology.
Academic Career: Undergraduate
Course Component: Lecture

## MUSIC 1494 - UNDERGRADUATE FACULTY ASSISTANT

## Minimum Credits: 1

Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit
Course Attributes: Undergraduate Internship

## MUSIC 1497 - DIRECTED STUDY

## Minimum Credits: 1

Maximum Credits: 6
Independent study in a topic in music. Permission of the instructor is required.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
General Education: Arts

## Nursing

## NUR 0100 - TRANSITION NURSING FOR LPNS

Minimum Credits: 2
Maximum Credits: 2
Facilitates transition of the LPN to associate degree nursing student. Major focus is on the roles of the associate degree nurse, the nursing process with emphasis on history taking, physical assessment and individualized nursing care plans; and, stressors related to fluid/electrolyte-acid/base balance.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## NUR 0106 - SUCCEEDING IN NURSING EDUCATION


#### Abstract

Minimum Credits: 1 Maximum Credits: 1 This course will provide opportunity for the nursing student to acquire skills necessary to successfully negotiate the educational journey to associate degree completion and state board examination. Strategies to cope with roadblocks to success will be presented in a relaxed seminar environment. Some topics to be presented included test-taking strategies, relaxation and stress management, time management and coping skills utilized to deal with family pressures. Academic Career: Undergraduate Course Component: Lecture Grade Component: LG/SNC Elective Basis


## NUR 0109 - CLINICAL CALCULATIONS

Minimum Credits: 1
Maximum Credits: 1

This course uses metric, apothecary, and household systems of measurement with a ratio/proportion method to calculate and plan preparation and administration of medications for all ages. Included are critical thinking skills to ensure safety and accuracy in dosage calculations for medication administration.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## NUR 0111 - FUNDAMENTALS OF NURSING

## Minimum Credits: 7

## Maximum Credits: 7

Fundamentals of nursing introduces students to various aspects of the nursing curriculum; Orem's theory, Roy's adaption model, Erickson's developmental theory, Maslow's basic human needs; concepts of stress and adaption, health illness continuum, nursing process, teaching and learning theories, nursing history, nursing roles and psychosocial and cultural influences on man, health and nursing. Legal and ethical principles, communication skills, documentation format, drug calculation, fluid balance and beginning clinical theories and skills are also taught.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## NUR 0112 - COMPREHENSIVE NURSING 1

## Minimum Credits: 8

## Maximum Credits: 8

Comprehensive nursing practice 1 applies the concepts of stress-adaptation, the nursing process and human needs to the care of med-surg adult, the pregnant female, the newborn and the family during the childbearing cycle. Health assessment and fluid and electrolyte concepts are introduced. The student learns to utilize specific concepts related to body defenses, carbohydrate metabolism, musculoskeletal, reproductive functions and psychosocial aspects of care.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: NUR 0111

## NUR 0113 - PHARMACOLOGY IN NURSING

## Minimum Credits: 3

Maximum Credits: 3
This course examines the complex world of pharmacology and therapeutics. It will address drug classes and the drugs represented by them. Each drug class will be discussed with regard to: absorption, distribution, metabolism and excretion; major pharmacologic side effects; clinical indications and administration; adverse reactions and contradictions; interactions with other drugs; overdoses and toxicities and nursing implications and interventions.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## NUR 0197 - DIRECTED STUDY IN NURSING

Minimum Credits: 1
Maximum Credits: 6
This course is independent study in a topic in nursing.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

NUR 0211 - COMPREHENSIVE NURSING 2

Minimum Credits: 9
Maximum Credits: 9
Enables students to apply the nursing process to multiple clients with complex med-surg problems in an acute care setting. Knowledge of specific stressors and adaptations that affect the body systems; respiratory, cardiovascular, sensory, integumentary, endocrine, neurologic, hematologic, gastrointestinal, accessory organs, urinary, alterations in cellular growth, and multiple systems diseases is gained. Students have the opportunity to apply psychosocial aspects into their delivery of care in the hospital and in the home. Students provide formal teaching to clients and families.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: Completion of NUR 0112 and 0113 is required.

## NUR 0212 - COMPREHENSIVE NURSING 3

## Minimum Credits: 9

## Maximum Credits: 9

Course provides the students opportunities to synthesize theories, concepts and skills while delivering care across the life span. Emphasis is placed on communication, growth and development, pharmacology and nutrition as it relates to care of the family. The content focuses on the family as the essential resource in the treatment of illness and the promotion of wellness. Emphasis is on role identification, management of client care, health care delivery system, interpersonal relationships, and personal and professional development.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: Completion of NUR 0211 is required

## NUR 1301 - CRITICAL CARE NURSING

## Minimum Credits: 3

## Maximum Credits: 3

Core concepts of course include stress and adaptation as they relate to the care of the critically ill or injured client, psychosocial and sleep alterations, legal and ethical issues patient education, and issues related to recognition and management of stressors in critical care nursing. Student learning will be augmented by an emphasis on critical thinking, and using system-appropriate case studies. Emphasis on management of adult clients with critical illness based on standards of practice as presented in "core curriculum for critical care nursing" by J. Grif-Alspach.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## NUR 1302 - PROFESSIONAL NURSING CONCEPTS

## Minimum Credits: 3

Maximum Credits: 3
This course is designed to introduce the adult student to the educational environment at the university of Pittsburgh and the school of nursing. The organizing framework and nursing theories which serve as the structure for the curriculum and nursing practice are presented. The nursing process is discussed as the foundation for nursing practice. Critical thinking and decision making are introduced.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: Letter Grade
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101 , ENG 0102 , FS 0102 , and the MATH competency

## NUR 1303 - WOMEN'S HEALTH ISSUES

## Minimum Credits: 3

Maximum Credits: 3
This course explores traditional reproductive issues concerning women, as well as selected common medical and psychosocial, developmental, and political problems and issues, accompanied by guidelines for disease prevention and health promotion. The content focuses on the adult, nonpregnant female, although health issues throughout a woman's lifespan are discussed.

## NUR 1310 - ETHICAL DIMENSIONS OF PROFESSIONAL NURSING

## Minimum Credits: 3

Maximum Credits: 3
This course examines ethical issues from the perspective of nursing with a focus on principled behavior in personal and professional situations. Course content is focused on ethical theories and principles, values clarification, development, and decision-making, and the nurse's obligations related to ethical issues and dilemmas in professional practice.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## NUR 1401 - INTRODUCTION TO NURSING RESEARCH

## Minimum Credits: 3

Maximum Credits: 3
The student is introduced to the research process with focus on the role of the professional nurse as a consumer of research. Basic concepts and terminology of research method ology and analysis are presented. Students are given the opportunity to interpret and evaluate nursing research.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: Letter Grade
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101 , ENG 0102, FS 0102 , and the MATH competency

## NUR 1402 - HEALTH PROMOTION/HLTH ASSESSMENT

## Minimum Credits: 3

Maximum Credits: 3
This course presents the knowledge base and the skills for health promotion and health assessment of individuals across the lifespan. The role of the nurse in promoting patterns of positive health behaviors is emphasized. The student is provided with an opportunity to practice physical assessment skills. In addition, the course facilitates the RN learners adjustment to the stresses of the multiple role learner.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency General Education: Physical Education

## NUR 1403 - ADVANCED CLINICAL PRACTICUM

## Minimum Credits: 4

Maximum Credits: 4
This course focuses on enabling the student to synthesize knowledge and increase competence in implementing the professional nursing role as caregiver, educator, researcher and administrator in complex health care systems. Students will be assigned to individually planned clinical experiences which will provide the opportunity for in-depth study and clinical practice in a selected area.
Academic Career: Undergraduate
Course Component: Practicum
Grade Component: Letter Grade
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101 , ENG 0102 , FS 0102 , and the MATH competency

NUR 1404 - COMMUNITY HEALTH NURSING

Minimum Credits: 4
Maximum Credits: 4
This course will provide learning experiences which focus on the role of the community health nurse in working with individuals, families, and groups in a variety of community settings. Students will explore community issues such as community assessment, screening, epidemiologic concepts and factors which influence the delivery of community health services. Health care needs of selected groups in the community will also be studied.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: Completion of NUR 1402
Course Attributes: UPB Global General Ed. Requirement
General Education: Global

## NUR 1406 - PATHOPHYSIOLOGY FOR NURSES

## Minimum Credits: 3

Maximum Credits: 3
This course focuses on the biologic basis for disease in adults and children. Specifically, an in-depth and current understanding of disease processes across the lifespan is targeted. Attention will focus on health promotion/disease prevention by emphasizing risk factors, nutrition and disease, and other relevant therapeutic approaches. Discussion with regard to age-specific and gender-specific pathophysiological processes is highlighted.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## NUR 1410 - ISSUES IN GERONTOLOGICAL NURSING

## Minimum Credits: 3

Maximum Credits: 3
This course explores the global aspects of aging, as well as selected common medical, psychological, developmental, and political issues of olderadults clients within a nursing frame work. Guidelines for health promotion and disease prevention are discussed as well as age and gender-specific pathophysiological processes and their treatment.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## NUR 1450 - TOPICS IN NURSING

Minimum Credits: 3
Maximum Credits: 3
The advanced study of a special topic in nursing.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## NUR 1451 - CAPSTONE: PROFESSIONAL NURSING

## Minimum Credits: 3

Maximum Credits: 3
This course focuses on enabling the student to synthesize knowledge about the professional nursing role within the health care delivery system. Theory related to leadership and management in nursing will be presented. Health care policy and nursing practice issues will also be presented.
Academic Career: Undergraduate
Course Component: Seminar

## NUR 1494 - UNDERGRADUATE FACULTY ASSISTANT

## Minimum Credits: 1

Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit
Course Attributes: Undergraduate Internship

## NUR 1497 - DIRECTED STUDY: NURSING

Minimum Credits: 1
Maximum Credits: 6
Directed study in a topic in nursing.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## NUR 1498 - DIRECTED RESEARCH: NURSING

## Minimum Credits: 1

## Maximum Credits: 6

An in-depth investigation of an issue in the student's area of interest. Topic, research procedure, and progress are discussed in meetings with the supervising professor.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## NUR 1499 - INTERNSHIP: NURSING

Minimum Credits: 1<br>Maximum Credits: 6<br>Practical experience in nursing in a professional setting. Work is directed by the employer and evaluated jointly with the faculty supervisor.<br>Academic Career: Undergraduate<br>Course Component: Internship<br>Grade Component: Satisfactory/No Credit

## Co-Ed Physical Education

## PEDC 0103 - AEROBIC EXERCISE 1

[^4]
## PEDC 0106 - BOWLING

## Minimum Credits: 1

Maximum Credits: 1
The fundamentals of bowling including approaches, deliveries, rules, scoring, and etiquette.
Academic Career: Undergraduate
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis
General Education: Physical Education

## PEDC 0108 - PHYSICAL CONDITIONING AND WEIGHT TRAINING 1

Minimum Credits: 1<br>Maximum Credits: 1<br>Weight training, aerobic, and flexibility techniques.<br>Academic Career: Undergraduate<br>Course Component: Credit Laboratory<br>Grade Component: LG/SNC Elective Basis<br>General Education: Physical Education

## PEDC 0110 - FITNESS SWIMMING

## Minimum Credits: 1

Maximum Credits: 1
This course will include information on stroke refinement and the introduction of new strokes combined with cardiovascular workouts and evaluations. Learn to swim more efficiently and effectively while improving your general cardiovascular fitness. Target heart-rate monitoring will be used and students will be evaluated on individual improvements.
Academic Career: Undergraduate
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis
General Education: Physical Education

## PEDC 0114 - TENNIS

## Minimum Credits: 1

Maximum Credits: 1
The fundamentals of tennis including basic strokes, rules, strategy, etiquette, and angles and doubles court play.
Academic Career: Undergraduate
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis
General Education: Physical Education

## PEDC 0116 - DOWNHILL SKIING AND SNOWBOARDING

Minimum Credits: 1
Maximum Credits: 1
This course provides students with no skiing or snowboarding experience or at any level of ability with the opportunity to develop downhill skiing and snowboarding skills at holiday valley resorts.
Academic Career: Undergraduate
Course Component: Credit Laboratory
Grade Component: Satisfactory/No Credit
General Education: Physical Education

## PEDC 0121 - OUTDOOR RECREATION

## Minimum Credits: 1

Maximum Credits: 1
Canoeing, backpacking, horseback riding, and camping.
Academic Career: Undergraduate
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis

## PEDC 0124-BASKETBALL

## Minimum Credits: 1

Maximum Credits: 1
A course in theory and practice of the fundamental skills of basketball including team strategy, offensive and defensive play, rules, terminology, and application in game play.
Academic Career: Undergraduate
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis
Course Attributes: UPB Physical Education General Ed. Requirement
General Education: Physical Education

## PEDC 0126 - VOLLEYBALL

## Minimum Credits: 1

Maximum Credits: 1
A course in theory and practice of the fundamental skills of volleyball including team strategy, offensive and defensive play, rules, terminology, and application in game play.
Academic Career: Undergraduate
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis
General Education: Physical Education

## PEDC 0151 - FLY FISHING

Minimum Credits: 1
Maximum Credits: 1
Through this course students will be introduced to fly fishing concepts including rod, reel, and line selections; balance and assemble casting techniques; fly selection; and fly tying.
Academic Career: Undergraduate
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis
General Education: Physical Education

## PEDC 0152-LIVING WELL

Minimum Credits: 1
Maximum Credits: 1
This course is designed to help students learn more about healthy living. It will incorporate lectures on various aspects of fitness and health, as well as help students to develop their own fitness/health plan for their lifelong needs.
Academic Career: Undergraduate
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis
General Education: Physical Education

## PEDC 0169 - BASICS OF SOCCER

Minimum Credits: 1
Maximum Credits: 1
A course in the theory and practice of the fundamental skills of soccer, including team strategies, passing, shooting, defending, basic rules, terminology, and the application of game play.
Academic Career: Undergraduate
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis
Course Attributes: UPB Physical Education General Ed. Requirement
General Education: Physical Education

## PEDC 0176 - CANOEING

Minimum Credits: 1
Maximum Credits: 1
Students will be expected to learn rudimentary canoeing skills, including entry and exit, shoving off, turning, steering, paddling strokes, stabilizing, and righting of inverted canoes. Aspects of canoe and paddle design and construction will also be considered. The course will be taught in conjunction with the Allegheny River Scholars' canoe trip.
Academic Career: Undergraduate
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis
General Education: Physical Education

## PEDC 0179 - SELF DEFENSE

Minimum Credits: 1
Maximum Credits: 1
The physical skills and environmental awareness required for realistic self-defense are taught. Suggested methods for dealing with common types of assaults including escapes from positions on the ground are practiced. Emphasis is on simple motor skills not requiring extensive practice for learning and/or retention. Strategies for recognizing and avoiding trouble and the legal aspects of self-defense are also covered.
Academic Career: Undergraduate
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis
General Education: Physical Education

## PEDC 0181 - INTRODUCTION TO MARTIAL ARTS

Minimum Credits: 1
Maximum Credits: 1
An introductory martial arts course. This course provides basic history, philosophy, language and customs of the world of Asian martial arts. The class introduces basic martial arts techniques including kicking, striking, blocking, locks, throws and grabs. Emphasis is on Korean Tae Kwon Do, Hapkido, Indonesian/Chinese Kunta and Taichi.
Academic Career: Undergraduate
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis
General Education: Physical Education

## PEDC 0182 - HAPKIDO

## Minimum Credits: 1

Maximum Credits: 1
Hapkido provides knowledge to defend oneself in numerous situations. Class expands to knife defense, short stick defense and defense against more complex holds and grabs.
Academic Career: Undergraduate
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis
General Education: Physical Education

## PEDC 0186 - YOGA

Minimum Credits: 1
Maximum Credits: 1
This course will present the basic hatha yoga techniques for physical fitness, mental and spiritual discipline, relaxation, and taking care of the health and well-being of the whole person.
Academic Career: Undergraduate
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis
General Education: Physical Education

## PEDC 0190 - VARSITY SPORTS

Minimum Credits: 1
Maximum Credits: 1
Students may earn up to four credits in physical education by participating in a varsity sport.
Academic Career: Undergraduate
Course Component: Credit Laboratory
Grade Component: Satisfactory/No Credit
General Education: Physical Education

## PEDC 0198 - DIRECTED STUDY

Minimum Credits: 1
Maximum Credits: 6
This is a directed study in physical education.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
General Education: Physical Education

## PEDC 0202 - LIFEGUARDING

Minimum Credits: 1
Maximum Credits: 1
Through this course the skills of aquatic rescue, pool chemical care, and general aquatic emergency procedures are covered. Successful completion of the American red cross lifeguard training certification is required to pass this course.
Academic Career: Undergraduate
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis
General Education: Physical Education

## PEDC 0250 - SPECIAL TOPICS

## Minimum Credits: 1

Maximum Credits: 1
The study of a special topic in physical education.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Physical Education
Petroleum Technology

Minimum Credits: 3
Maximum Credits: 3
This course provides an overview of the oil and natural gas industry. Topics covered include history of petroleum, basic geology, drilling, production, transportation, refining, gas processing, storage, environmental health and safety concerns, the economic decision planning, and energy impact of petroleum products.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Physical Science

## PET 0102 - ENVIRONMENT AND SAFETY

Minimum Credits: 3
Maximum Credits: 3
This petroleum technology-related environment and safety course is designed to provide specialized training and technology transfer for the oil and gas industry. This introductory course covers environmentally safe drilling techniques used to discover and produce oil and gas. Topics include: environmental technology, environmental control technology for oilfield processes, environmental control of drilling fluids and produced water, oilfield waste disposal control, drilling and production discharges in the marine environment, decommissioning of offshore oil and gas installations, tanker design: recent developments from an environmental perspective, pipeline technology, environmental management and technology in oil refineries, distribution, marketing and use of petroleum fuels, lubricants, and climate change scenarios and their potential impact on world agriculture.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## PET 0103 - PETROLEUM GEOLOGY AND GEOPHYSICS

## Minimum Credits: 3

Maximum Credits: 3
This course delves into the intricate world of petroleum geology and petroleum exploration (geophysics). Throughout the class students will learn about reservoir and source rocks, what caprock is and what role it plays within a sedimentary basin. Aspects of sequence stratigraphy and basin analysis will be broadly discussed. In order to find hydrocarbons underground, and to describe the rocks in which it occurs this class will tackle the wonderful world of geophysics. Using physical properties of the rocks recorded by electronic devices the history of hydrocarbons, and under which conditions it formed, can be understood. Prerequisites: GEOL 0101 and PET 0101.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: GEOL 0101 \& PET 0101

## PET 0105 - INTRODUCTION TO GEOGRAPHIC INFORMATION SCIENCE

## Minimum Credits: 3

Maximum Credits: 3
GIS or Geographic Information Systems is more than geography, and is certainly more than just making maps. Maps are important and useful tools for many areas of study, from the Sciences, to Humanities, to Political Science, to Medical applications and numerous other fields. In this class students will be introduced to the art of making maps using modern technology along with some old and basic principles. As part of the class students will participate in the 'Day' activities.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Attributes: UPB Computational Sci. General Ed. Requirement
General Education: Computational Sciences

## PET 0106 - DRILLING AND COMPLETION 1

Minimum Credits: 3
Maximum Credits: 3
Drilling and completion i covers components and processes related to oil and gas drilling, and the fundamental principles of geology, chemistry, and physics that provide the scientific basis for drilling technology. Basics of drilling hoisting, circulating, and rotating systems will be introduced. Material will then cover the properties of drilling fluids and additives as well as cement composition, additives, and placement technologies. The course also defines technical terms necessary to the understanding of instructions and information provided by the mud engineers. The course discusses the introduction to drilling fluids, the development of drilling technology equipment and procedures for evaluating drilling fluids performance, clay mineralogy and colloid chemistry, rheology, filtration properties, whole stability, drilling problems, and completion fluids. Drilling technology covers directional and horizontal drilling cementing, casing and casing design, drilling fluids and well control.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: PET 0101

## PET 0108 - WELL CONTROL

## Minimum Credits: 3

Maximum Credits: 3
This course it is designed for students who require a basic understanding of the well control to perform their oil and gas well site jobs. Students will learn through 21 modules of web-based - well control developed and offered by the well control school, Houston, Texas. Upon completion of the class, the students will receive a professional certificate from WCS, AAPG and API.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## PET 0110 - MUD LOGGING

## Minimum Credits: 3

Maximum Credits: 3
This course will train students to correctly identify minerals and rocks in the cuttings resulted from the drilling process itself, for the purpose of understanding the sub surface environment and to keep the driller informed as to the progression of the borehole. Prerequisites: GEOL 101 or ES105+ES107
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: GEOL 0101 OR ES 0105 and ES 0107

## PET 0197 - DIRECTED STUDY IN PETROLEUM TECHNOLOGY

## Minimum Credits: 1

Maximum Credits: 6
This course is an independent study in a topic in petroleum technology.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

## PET 0201 - PETROLEUM AND NATURAL GAS CHEMISTRY

## Minimum Credits: 3

## Maximum Credits: 3

An introduction to the basic principles of organic chemistry with major emphasis on the hydrocarbons: purification, identification, structure determination and energetic. Corrosion, field water (brine) chemistry, gas laws review, stoichiometry ( mass balance ) review, phase diagrams, viscosity, octant number, cetane number, flash points, natural gas chemical composition and applications and natural gas hydrates are discussed. Laboratory demonstrations will be conducted throughout the course.
Academic Career: Undergraduate
Course Component: Lecture

## PET 0203 - NATURAL GAS PROCESSING

## Minimum Credits: 3

Maximum Credits: 3
This course covers an introduction to natural gas processing from the standpoint of natural gas and natural gas liquids production. Topics include: phase behavior of fluids, multi-phase flow, phase separation, dehydration, pipeline flow, pumps and compressors, corrosion, measurement, and fluid specifications. Prerequisite PET 0101.

## Academic Career: Undergraduate

Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: PET 0101

## PET 0204 - WELL LOG INTERPRETATION

## Minimum Credits: 3

Maximum Credits: 3
This course is aimed to familiarize students to the open whole electric wireline well logs and their application in reservoir evaluation. The class includes topics such as Induction, Temperature, Resistivity, Radioactivity, Density logs. Part of the class is dedicated to map making projects using synthetic logs. Prerequisite: PET 0103.

## Academic Career: Undergraduate

Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: PET 0103

## PET 0206 - DRILLING AND COMPLETION

## Minimum Credits: 3

## Maximum Credits: 3

Drilling and Completion is designed to build student's knowledge on the process of drilling than completing a hydrocarbon well using new/modern equipment details, interpretive skills, technical and procedural details, economic considerations, variables to replicate realistic scenarios, and safety considerations. Topics will include, particularly, the equipment, processes, and techniques associated with well completions and workovers, directional drilling, and well stimulation.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: PET 0101

## PET 0207 - BLACK SHALE OF THE APPALACHIAN BASIN

## Minimum Credits: 3

Maximum Credits: 3
This course will delve in to the intricate mechanisms of black shale deposition. During class we will cover such topics as tectonic regimes of the Appalachian Basin (AB); sediment characteristics of the main black shale units of the $A B$; geochemical evolution of source rocks within $A B$; hydrocarbon history and potential of the black shale source beds. Detailed concepts of shale sedimentology will be discussed with respect to the black shales of AB. Prerequisite PET 0103.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: PET 0103

## PET 0208 - ENHANCED HYDROCARBON RECOVERY

Minimum Credits: 3
Maximum Credits: 3
This course provides an understanding of the enhanced hydrocarbon recovery methods used to produce fluids from old, low pressure, nearly depleted oil and gas wells. In class the latest procedures, practices, and equipment used in hydraulic fracturing and artificial lift operations will be discussed. Both surface and downhole mechanical components, and operational issues associated with enhanced recovery methods will be analyzed using traditional calculations and computer simulations. Perforation technology, rock fracturing mechanisms and fracture fluids are the backbone components of enhanced recovery so they will be treated in detail. Rod pumping, gas lift, plunger lift and other related methods of artificial lift will be covered using both theory and practical aspects. Prerequisite PET 0206.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: PET 0206

## PET 0209 - INTRODUCTION TO SUPERVISORY CONTROL AND DATA ACQUISITION

## Minimum Credits: 3

## Maximum Credits: 3

This course provides a basic understanding of the computer applications generally used to manage the operation of modern well sites and processing facilities. The course is designed to provide an introduction for SCADA-based data collection and automation systems, control of gathering lines, and supervision of processing facilities such as gas and crude oil refineries. Students will utilize software and hardware similar to the one used in by industry in an effort to deliver state-of-the-art background in these systems. The course will provide the knowledge to identify the various system components, redundant backup systems and recognize the benefits and limitations of a SCADA system. Students will be asked to sketch a SCADA system for an industry scenario. Prerequisites PET 0201 and 0203.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: PET 0203 \& PET 0201

## PET 1494 - UNDERGRADUATE FACULTY ASSISTANT

## Minimum Credits: 1

## Maximum Credits: 3

The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit

## PET 1498 - DIRECTED RESEARCH: PETROLEUM TECHNOLOGY

## Minimum Credits: 1

Maximum Credits: 6
This course is independent research in a topic in petroleum technology.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101 , ENG 0102 , FS 0102 , and the MATH competency

## PET 1499 - INTERNSHIP PETROLEUM TECHNOLOGY

Minimum Credits: 1<br>Maximum Credits: 6<br>Academic Career: Undergraduate

## Philosophy

## PHIL 0101 - INTRODUCTION TO PHILOSOPHY

## Minimum Credits: 3

Maximum Credits: 3
An exploration of traditional philosophical problems such as the nature of time, the possibility of free will, the foundation of morality, the character of knowledge, the nature of human beings, and the proper aim of life.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Philosophical Inquiry

## PHIL 0103 - PHILOSOPHY OF RELIGION

Minimum Credits: 3
Maximum Credits: 3
This is an introductory course in the philosophy of religion. We will explore some of the major philosophical issues faced by religion. Some of the topics to be covered in this class include: arguments for the existence of god, the problem of evil, the possibility of miracles, death and immortality, the relationship between religion and science, and the relationship between religion and morality.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Philosophical Inquiry

## PHIL 0110 - ETHICS

## Minimum Credits: 3

Maximum Credits: 3
In deciding how to act, we frequently guide ourselves by general principles, which forbid or require various kinds of action. Moral philosophy is the attempt to systematically explore a number of questions which arise in connection with such principles. We may ask, for example: what is it for a principle to be a moral principle? Is there one uniquely correct moral code, or is morality a matter of personal preference? What candidates for moral principles can be defended? Why should i be moral? This course will examine several of these questions and the answers suggested by classic moral philosophers such as Kant and Mill.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Attributes: UPB Philosophical Inquiry General Ed. Requirement
General Education: Philosophical Inquiry

## PHIL 0197 - DIRECTED STUDY IN PHILOSOPHY

Minimum Credits: 1
Maximum Credits: 6
This course is independent study in a topic dealing with subjects related to philosophy and philosophical issues.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

## PHIL 0203 - PHILOSOPHY IN LITERATURE

Minimum Credits: 3
Maximum Credits: 3
An examination of philosophical themes in literature from both East and West. A novel, a play, folk tales, and poetry will be discussed.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Philosophical Inquiry

## PHIL 0204 - PHILOSOPHY AND PUBLIC ISSUES

## Minimum Credits: 3

## Maximum Credits: 3

The moral issues raised by contemporary events including abortion, euthanasia (mercy killing), capital punishment, reverse discrimination, and civil disobedience. We do not claim to be able to resolve these issues definitively, but in this course we will work to clarify them and enable students to think about them in a clear-headed way.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Philosophical Inquiry

## PHIL 0214 - BIOETHICS

## Minimum Credits: 3

Maximum Credits: 3
Bioethics is the study of the ethics of life and death. Some of the topics to be covered in this class include: abortion, stem cell research, cloning, euthanasia, capital punishment, distribution of heath care resources, and human and animal experimentation.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Philosophical Inquiry

## PHIL 0215 - GREAT POLITICAL THINKERS

## Minimum Credits: 3

Maximum Credits: 3
Suggests how thinkers such as Plato, Aristotle, St. Augustine, Machiavelli, Hobbes, Locke, Rousseau, Marx, Freud understood human nature, viewed the conditions or requirements for happiness, and defined the social and political forms that contribute to or detract from human fulfillment. The course seeks to define the basic alternatives that guide our lives.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Philosophical Inquiry

## PHIL 0225 - FOOD IN SOCIETIES

## Minimum Credits: 3

Maximum Credits: 3
Humans, unlike other animals, exercise far more choices when it comes to what they eat. These choices involve simple decisions like where we eat, what we eat, with whom we eat, and when. But how do we account for the diversity that we see in how we obtain, distribute and consume food? Is food simply something that we eat, or something far more important in terms of how we relate to each other morally, socio-economically, politically and religiously? This course will address these questions through the intellectual frameworks of philosophy and anthropology.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Cultures

## PHIL 0250 - SPECIAL TOPICS

Minimum Credits: 3<br>Maximum Credits: 3<br>The study of a special topic in philosophy.<br>Academic Career: Undergraduate<br>Course Component: Lecture<br>Grade Component: LG/SNC Elective Basis

## PHIL 1303-EASTERN PHILOSOPHY

Minimum Credits: 3<br>Maximum Credits: 3<br>The theory and practice of Hinduism, Buddhism, Taoism, Zen Buddhism, and Sufism, and comparisons with Western philosophies and religions.<br>Academic Career: Undergraduate<br>Course Component: Lecture<br>Grade Component: LG/SNC Elective Basis<br>Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## PHIL 1304 - POLITICS AND PHILOSOPHY

Minimum Credits: 3
Maximum Credits: 3
Political philosophy is a branch of philosophy devoted to assessing the authority, legitimacy, and justification of various kinds of political arrangements. Key concepts will be investigated in this course, including justice, rights, laws, and personal/public property. We will focus on the work of such thinkers as Plato, Machiavelli, Rawls, and Nozick.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0104 (or FS 0102), and the MATH competency
Course Attributes: UPB Cultures General Ed. Requirement
General Education: Cultures

## PHIL 1445-ENVIRONMENTAL ETHICS

## Minimum Credits: 3

Maximum Credits: 3
Basic concepts in environmental ethics such as environmental aesthetics, anthropocentricism, holism, and the role of economic systems will be considered and then applied to contemporary issues such as pollution, wilderness preservation, environmental justice, human predation and domestication of animals, and biomedical research. Questions concerning both theory and practice will be addressed, while at the same time recognizing the importance of understanding the historical and cultural contexts of each. Fundamental ethical theory will be covered - no knowledge of ethics or philosophy is presupposed. While the course does not seek to advocate any particular environmental policy its intention is to develop in students the ability to reach informed and reasoned conclusions concerning environmental policy, and to effectively defend such positions.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency General Education: Philosophical Inquiry

## PHIL 1450 - TOPICS IN PHILOSOPHY

## Minimum Credits: 3

## Maximum Credits: 3

An advanced study of a special topic in philosophy.
Academic Career: Undergraduate

Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0104 (or FS 0102), and the MATH competency

## PHIL 1494 - UNDERGRADUATE FACULTY ASSISTANT

## Minimum Credits: 1

Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit

## PHIL 1497 - DIRECTED STUDY: PHILOSOPHY

Minimum Credits: 1
Maximum Credits: 6
Independent study in a topic in philosophy. Permission of the instructor is required.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101 , ENG 0102 , FS 0102 , and the MATH competency

## Physics

## PHYS 0101 - INTRODUCTION TO PHYSICS 1

Minimum Credits: 4
Maximum Credits: 4
An introduction to kinematics, statics, dynamics, momentum, energy, simple harmonic motion, rotational motion, wave motion, gravitation, fluids, heat, and thermodynamics. A laboratory is required.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: COREQ: MATH 0098
Course Attributes: UPB Physical Science General Ed. Requirement
General Education: Physical Science

## PHYS 0102 - INTRODUCTION TO PHYSICS 2

Minimum Credits: 4
Maximum Credits: 4
A continuation of PHYS 0101 including electricity, magnetism, circuits, electromagnetic waves, optics, relativity, atomic and nuclear physics. A laboratory is required.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: PHYS 0101
General Education: Physical Science

## PHYS 0103 - CONCEPTS OF MODERN PHYSICS

## Minimum Credits: 3

Maximum Credits: 3
A basic examination of essential topics including mechanics, properties of matter, heat, sound, electricity and magnetism, light, atomic and nuclear physics, relativity and astrophysics.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Physical Science

## PHYS 0197 - DIRECTED STUDY

## Minimum Credits: 1

Maximum Credits: 6
Independent study in a topic in physics. Permission of the instructor is required.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

## PHYS 0201 - FOUNDATIONS OF PHYSICS 1

## Minimum Credits: 4

Maximum Credits: 4
A calculus-based introduction to kinematics, dynamics, energy, momentum, rotational motion, rigid bodies, simple harmonic motion, gravitation, and the mechanics of fluids.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ:MATH 0140
Course Attributes: UPB Physical Science General Ed. Requirement
General Education: Physical Science

## PHYS 0202 - FOUNDATIONS OF PHYSICS 2

## Minimum Credits: 4

Maximum Credits: 4
A continuation of PHYS 0201. Topics include heat and thermodynamics with an introduction to temperature, internal energy and entropy; kinetic theory of gases and the statistical interpretation of thermodynamics; electrostatics; electric currents and magnetism; and electrodynamics including an introduction to Maxwell's equations.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: PHYS 0201 and COREQ: MATH 0150
Course Attributes: UPB Physical Science General Ed. Requirement
General Education: Physical Science

## PHYS 0203 - FOUNDATIONS OF PHYSICS 1 LAB

Minimum Credits: 1
Maximum Credits: 1
A laboratory course for PHYS 0201 required for all non-engineering majors and recommended for those engineering majors who plan to transfer outside the Pitt system.
Academic Career: Undergraduate
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis
General Education: Physical Science

## PHYS 0204 - FOUNDATIONS OF PHYSICS 2 LAB

## Minimum Credits: 1

Maximum Credits: 1
A laboratory course for PHYS 0202 required of all non-engineering majors and recommended for those engineering majors who plan to transfer outside the Pitt system.
Academic Career: Undergraduate
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis
General Education: Physical Science

## PHYS 1302 - MODERN PHYSICS, ATOMS AND NUCLEI

## Minimum Credits: 3

Maximum Credits: 3
The basics of relativity and quantum theory, with emphasis on the physics of atoms and nuclei.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0104 (or FS 0102), and the MATH competency

## PHYS 1306-OPTICS

## Minimum Credits: 3

Maximum Credits: 3
Includes the study of geometrical optics--lenses, mirrors, Snell's law; physical optics--diffraction, polarization, interference; quantum optics--lasers, holography, and modern concepts of light.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0104 (or FS 0102), and the MATH competency

## PHYS 1494 - UNDERGRADUATE FACULTY ASSISTANT

## Minimum Credits: 1

Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit

## PHYS 1497 - DIRECTED STUDY: PHYSICS

## Minimum Credits: 1

Maximum Credits: 6
Independent study on a project in physics supervised by a member of the physics faculty.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## PHYS 1498 - DIRECTED RESEARCH: PHYSICS

Minimum Credits: 1
Maximum Credits: 6
Independent research on a project in physics. Supervised by a member of the physics faculty.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

## Public Relations

## PR 0101 - INTRODUCTION TO PUBLIC RELATIONS

## Minimum Credits: 3

Maximum Credits: 3
Principles, history, and practice of public relations in business, educational institutions, social welfare organizations, government, and the military services.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Behavioral Sciences

## PR 0250 - SPECIAL TOPICS

## Minimum Credits: 3

Maximum Credits: 3
The study of a special topic in public relations.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## PR 1302 - PUBLIC RELATIONS CASE PROBLEMS

## Minimum Credits: 3

Maximum Credits: 3
Case studies and typical public relations problems in industry, labor, education, government, social welfare, and trade associations. Planning and preparation of communications materials for various media; application of public relations techniques.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## PR 1304 - PROMOTIONAL WRITING

## Minimum Credits: 3

Maximum Credits: 3
Students learn to write press releases, publicity articles, radio, TV, and print advertisements, promotional flyers and brochures. The class examines materials used in the publicity campaigns of marketing firms and corporations.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## PR 1451 - CAPSTONE: PUBLIC RELATIONS

## Minimum Credits: 3

Maximum Credits: 3
In this course, we will draw on a number of disciplines- literature, classics, and political science, among others- to discuss the role public relations plays on culture. We will look at how certain texts have advocated a point of view and have achieved their slated agenda.
Academic Career: Undergraduate
Course Component: Seminar
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## PR 1494 - UNDERGRADUATE FACULTY ASSISTANT

## Minimum Credits: 1

Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit

## PR 1497 - DIR STUDY: PUBLIC RELATIONS

Minimum Credits: 1
Maximum Credits: 6
Directed study in a specific area of public relations. Permission of the instructor is required.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101 , ENG 0102 , FS 0102, and the MATH competency

## PR 1498 - DIRECTED RESEARCH: PUBLIC RLTNS

## Minimum Credits: 1

Maximum Credits: 6
Independent research on a project in public relations.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

## PR 1499 - INTERNSHIP: PUBLIC RELATIONS

## Minimum Credits: 1

## Maximum Credits: 6

Working with an advisor, public relations majors are placed in professional settings throughout the area-in colleges and businesses, in hospitals and nonprofit agencies-to give them hands-on experience as entry-level public relations practitioners. (Many students elect to develop a summer internship in their hometown).
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit

## Political Science

## PS 0102 - AMERICAN POLITICAL PROCESS

Minimum Credits: 3
Maximum Credits: 3
An introductory course focusing on American politics and government. Emphasis is on political processes and institutions on the national level including congress, the presidency, the supreme court, political parties, pressure groups and elections.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Political Science

## PS 0103-COMPARATIVE POLITICS

## Minimum Credits: 3

Maximum Credits: 3
The object of this course is to provide an understanding- through comparative methods of political science--of how several nations of the world are governed and to provide insights into why they are governed as they are. Countries studied may include Great Britain, the Soviet Union, West Germany, France and South Africa.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Political Science-Global

## PS 0110 - INTRODUCTION TO INTERNATIONAL AFFAIRS


#### Abstract

Minimum Credits: 3 Maximum Credits: 3 Introduction to international affairs constitutes an introductory look at important issues facing the international community. The primary focus of the course will be to examine how nations, cultures, and communities politically address various issues. Such issues include: international security and terrorism; the political impact of race, ethnicity and gender; religion and politics; natural resources and the environment; global poverty and hunger; and human rights and social justice. These issues will be approached in a comparative manner in order to illustrate the inherent complexity and diversity among actors in the international community and how they politically deal with these issues. Academic Career: Undergraduate Course Component: Lecture Grade Component: LG/SNC Elective Basis General Education: Political Science-Global


## PS 0197 - DIRECTED STUDY

## Minimum Credits: 1

Maximum Credits: 6
Directed study is designed to give students the opportunity to design and carry out a research project to be agreed upon by the student and a supervising faculty member.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

## PS 0201 - WORLD POLITICS

## Minimum Credits: 3

Maximum Credits: 3
An introduction to relations between countries ranging from war and conflict to peace and cooperation. Topics surveyed include: differences between domestic and international politics, society and American world views, strategies of nuclear deterrence; conditions for successful negotiations; the problems of developing states; and other current issues.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Political Science

## Minimum Credits: 3

Maximum Credits: 3
Suggests how great thinkers such as Plato, Aristotle, St. Augustine, Machiavelli, Hobbes, Locke, Rousseau, Marx and Freud understood human nature, viewed the conditions or requirements for happiness, and defined the social and political forms that contribute to or detract from human fulfillment. The course seeks to define the basic alternatives that guide our lives.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Political Science

## PS 0204 - PUBLIC POLICY PROCESS

## Minimum Credits: 3

Maximum Credits: 3
Provides the students with general knowledge about public policy making and administration in the united states. It surveys the policy process with emphasis on conceptual theoretical frameworks for the initiation, development, administration, and evaluation of public policy. Also surveys the impacts of institutional arrangements and administrative/bureaucratic decision making on public policy formulation and implementation. A discussion covers policy processes in comparative perspective. Prerequisite: GE: political science
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Attributes: UPB Political Science General Ed. Requirement
General Education: Political Science

## PS 0205 - LAW AND THE COURTS

## Minimum Credits: 3

## Maximum Credits: 3

This course examines the major components of the American legal system, including the police, the law profession, prosecutors and public defenders, state and federal courts, plus the impact of the Supreme Court on the American political system. Emphasis is on the realities of the legal process in operation - how it affects the "who gets what" question.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Political Science

## PS 0207 - CONGRESS AND THE PRESIDENCY

## Minimum Credits: 3

## Maximum Credits: 3

This course examines the two major policymaking institutions in the American political system. First, it provides an overview of the development, structure, and process of the U.S. Congress. The emphasis is on the effects of the sometimes contradictory functions of representation and the lawmaking faced by members of congress. Then the focus turns to the institution of the presidency and its role in the policy making process. Particular attention is paid to understanding presidential power and leadership, as it relates to Congress.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Attributes: UPB Political Science General Ed. Requirement
General Education: Political Science

## PS 0215 - EUROPEAN POLITICS AND EUROPEAN UNION

## Minimum Credits: 3

Maximum Credits: 3

This course will look at European politics on both the supranational and domestic level. The history, structure and continued development of the European union and its key institutions will be studied. The domestic political systems and cultural context of European countries will be explored comparatively. Additionally, issues of foreign, economic, environmental, and social policy-making that intersect both the domestic and the supranational levels will be investigated.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Political Science-Global

## PS 0220 - MEDIA AND INTERNET IN POLITICS

## Minimum Credits: 3

Maximum Credits: 3
This course explores the ways in which the media, internet and technologies which are available via the internet are transforming politics, as well as how domestic and international politics are shaping media coverage and the internet's availability and usage. Topics covered include (but are not limited to) regulatory laws and international treaties, intellectual property, the global digital divide, norms of transparency and accountability, democratic internet technology, censorship, e-government, ethical and privacy concerns, internet voting, e-campaigning, the internet, political culture, and political behavior in democratic and authoritarian regimes, cyberactivism, cyberhate, social media and social movements, and the internet and political conflict.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Political Science-Global

## PS 0225 - WOMEN IN POLITICS

## Minimum Credits: 3

## Maximum Credits: 3

This course explores the diverse roles of women in politics, both nationally and internationally, comparing across a range of political systems. Women's movements, political participation, involvement in political parties, electoral campaigns, representation in elected office, and policy-making impact will be examined.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Political Science-Global

## PS 1304 - AMERICAN FOREIGN RELATIONS

## Minimum Credits: 3

## Maximum Credits: 3

This course examines American foreign policy since World War II, with the objective of describing its major features, and explaining its evolution, and its problems. It reviews contending interpretations of past successes and failures and considers the current debate about what American foreign policy should be.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency General Education: Political Science-Global

## PS 1307 - LIBRLSM, CONSERVATISM \& SOCLSM

## Minimum Credits: 3

Maximum Credits: 3
Liberalism and conservatism are the two dominant positions in the United States today on political, social and moral issues, while socialism has gained influence in recent decades. The course will clarify how these positions differ in defining what constitutes problems and in selecting preferred solutions. This will help us (1) to recognize basic alternatives which recur in debates and policy-making and (2) to suggest how these patterns guide
and give meaning to personal and national choices.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency
General Education: Political Science

## PS 1308 - AMERICAN POLITICAL THOUGHT

## Minimum Credits: 3

Maximum Credits: 3
This course has two major objectives. The first is to examine the defining event of American politics - the creation of the Constitution of 1787. The goal is a proper understanding of the thought and intentions embodied in the constitution and, concurrently, a clarification of the reasoning of those who questioned and opposed it. The second objective is to study how the thought and the intentions underlying the constitution have been realized or transformed since the American founding.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency General Education: Political Science

## PS 1310 - CONSTITUTIONAL LAW

## Minimum Credits: 3

Maximum Credits: 3
This course will consider the U.S. Supreme Court as a policy-making branch of the federal government. Major topics include: judicial review; constitutional sources of and limitations on the legislative power; presidential power; the Supreme Court and criminal justice system, including the doctrine of incorporation, the right to counsel, the privilege against self-incrimination and the exclusionary rule; equal protection.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency General Education: Political Science

## PS 1337 - IDENTITY POLITICS

## Minimum Credits: 3

Maximum Credits: 3
This course on identity politics focuses on the interaction of categories such as race, ethnicity, class, gender, and sexuality and the role that identity plays in politics on a national and global level. The course will examine identity-based rights movements and evaluate policy-making changes in light of these movements.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency General Education: Political Science-Global

## PS 1340 - DEMOCRATIZATION

## Minimum Credits: 3

Maximum Credits: 3
This course focuses on the process of democratization, when nations shift from authoritarian regimes to more democratic forms of organization. Students will explore theoretical debates regarding democracy, democratization, and democratic consolidation. The lectures, readings, and assignments will explore country case studies from several different world regions. These comparative case studies will be used to examine the effect of causal factors such as political culture, political institutions, civil-military relations, civil society, the resource curse, and the international environment on democratization.

Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0104 (or FS 0102), and the MATH competency
Course Attributes: UPB Global General Ed. Requirement, UPB Political Science General Ed. Requirement
General Education: Political Science-Global

## PS 1354 - LGBTQ POLITICS

## Minimum Credits: 3

## Maximum Credits: 3

This course explores the theory and practice of lesbian, gay, bisexual, transgender, and queer (LGBTQ) politics globally, examining the policy impact of legislation, litigation, and direct democracy; shifts in public opinion and media coverage; and the diffusion of international human rights norms via international law. Further, the historic development of LGBTQ rights movements, interest groups, and advocacy coalitions; the involvement of the LGBTQ community and allies in activism; and the role of out politicians will be explored. Policy-making concerning a range of LGBTQ rights issues will be examined cross-nationally: criminalization and decriminalization of homosexuality; discrimination and nondiscrimination protections; hate crimes; same-sex union recognition and marriage; LGBTQ adoption and parenting; transgender, bisexual, intersex, and asexual rights; gender recognition; citizenship, immigration, and asylum; public health and aging; and youth, homelessness, education, and criminal justice.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0104 (or FS 0102), and the MATH competency
Course Attributes: UPB Global General Ed. Requirement, UPB Political Science General Ed. Requirement
General Education: Political Science-Global

## PS 1355 - POLITICS OF THE DEVELOPING WORLD

## Minimum Credits: 3

## Maximum Credits: 3

This course will consist of a broad survey of the political and economic issues facing the developing world. This will include an in-depth look at the impact of colonialism, imperialism, and neo/economic imperialism that will include critical examinations of how various theoretical perspectives critically address the effects these issues have had on the developing world. Such theoretical perspectives will include modernization/stage theory, dependency theory, world systems theory, underdevelopment, and dependent development. Following examinations of colonialism and theory, specific issues will be examined. Such issues include; disease, poverty, hunger, environmental degradation, ethnic conflict, human rights, security, and gender. The focus will be on how both developed and developing nations politically and economically deal with such issues. Much of the discussion of these issues will be conducted within the framework of understanding the impact of the political and economic policies of Western Europe, the United States, and international organizations such as the U.N., LMF, WTO, and the world bank on developing nations.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency General Education: Political Science-Global

## PS 1365 - SOCIAL MOVEMENTS

## Minimum Credits: 3

## Maximum Credits: 3

This course introduces students to social movements and international political activism, as well as to competing theoretical arguments regarding social movements. Issue areas we will examine include (but are not limited to) human rights, civil rights, labor rights, children's rights, women's rights, lgbt rights, indigenous rights, immigrant and refugee rights, HIV/AIDS, the environment, climate change, peace, and global justice. Students will explore different causal factors that influence social movements, and compare and contrast how these factors affect movements cross-nationally.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0104 (or FS 0102), and the MATH competency
Course Attributes: UPB Global General Ed. Requirement, UPB Political Science General Ed. Requirement
General Education: Political Science-Global

## PS 1366 - PUBLIC POLICY ANALYSIS

## Minimum Credits: 3

Maximum Credits: 3
This course provides instruction in the professional practice of policy analysis. Throughout the course we will consider a number of fundamental questions: What are the rationales for collective interference in private affairs? What are the limitations to collective action? What are the generic instruments of public policy? What are the appropriate roles for policy analysts in democratic societies? Through an examination of these questions we will build the conceptual foundations for conducting sound policy analysis.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Requires completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency and one of the following: PS 0102 or PS 0204 or ECON 0102 or ECON 0103

## PS 1367 - ENVIRONMENTAL POLITICS

## Minimum Credits: 3

## Maximum Credits: 3

A multidisciplinary general education course designed at an introductory level. This course provides students with comprehensive knowledge of the organizations, interests, and processes that shape environmental policy. It explores the local, regional, and global dimensions of the most critical environmental problems and issues facing policy makers today, including land-use management, energy conservation, acid rain, lead poisoning, indoor air pollution (radon pollution), ozone depletion, waste management, waste dumping in the ocean, deforestation worldwide, habitat destruction, and global warming.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency Course Attributes: UPB Political Science General Ed. Requirement
General Education: Political Science

## PS 1385-GLOBAL ENVIRONMENTAL POLITICS

## Minimum Credits: 3

Maximum Credits: 3
This course focuses on global environmental politics and comparative environmental policy. The impact of the international system, international governmental organizations, summits, and international treaties on global environmental politics will be examined. Domestically, the effects of interest groups, political parties, and governmental structures on environmental policy-making will be explored. Additionally, the course will examine environmental movements and evaluate policy-making changes in light of these movements.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency General Education: Political Science-Global

## PS 1393 - GLOBAL PUBLIC HEALTH AND SOCIAL POLICY

## Minimum Credits: 3

Maximum Credits: 3
This course compares health care systems and welfare systems as well as developments in public health and social policy across a range of countries. We will examine the impact of political, economic and cultural factors as well as the role of state actors, international organizations, nongovernmental organizations, and corporations on public health and social policy globally. An intersectional perspective will be used to examine
patterns of inequality and to assess the ways in which policy-making impacts different groups in society.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0104 (or FS 0102), and the MATH competency

## PS 1394 - NONPROFIT MANAGEMENT AND LEADERSHIP

## Minimum Credits: 3

## Maximum Credits: 3

This course offers students an overview of the practical and theoretical foundations of non-profit management and leadership globally. We will examine how nonprofits and nongovernmental organizations collaborate with states, intergovernmental organizations, and corporations. Topics that will be explored in the course include law, regulation, and governance; ethics, accountability, and legitimacy; organizational finance, grant writing, and fundraising; stakeholder communication and marketing; human resource management, compensation, and practices regarding workplace diversity; and effectiveness, program assessment, and evaluation. Case studies will explore the work of international nongovernmental organizations on policy issues such as food insecurity, poverty, international development, international humanitarian relief, global public health, human rights, refugee relief, and LGBTQ rights.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0104 (or FS 0102), and the MATH competency

## PS 1449 - CAPSTONE 1: RESEARCH METHODS

## Minimum Credits: 3

## Maximum Credits: 3

Research methods is the first course in a two-semester capstone sequence. Students are expected to enroll in capstone 1 as juniors and to take Capstone 2 in the subsequent semester. Capstone 1 introduces students to research methods used by political scientists and historians, focusing on a seminar theme. Students will gain a working knowledge of the theory and practice underlying diverse methods of inquiry. Students will be introduced to computer software used in conducting research. The course will help students to formulate a research question, develop a literature review, and craft a research design for their capstone research papers. Additionally, students will consider career and graduate study opportunities, developing individualized professional development plans.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency, also required is junior status

## PS 1450 - TOPICS IN POLITICAL SCIENCE

## Minimum Credits: 3

Maximum Credits: 3
An advanced study of a specific topic in political science.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0104 (or FS 0102), and the MATH competency

## PS 1451 - CAPSTONE 2: POLITICAL SCIENCE

## Minimum Credits: 3

Maximum Credits: 3
Seminar participants are responsible for preparing and delivering a formal paper on a seminar theme in political science.

Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: HIST or PS 1449

## PS 1494 - UNDERGRADUATE FACULTY ASSISTANT

## Minimum Credits: 1

## Maximum Credits: 3

The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit

## PS 1497 - DIRECTED STUDY: POLITICAL SCIENCE

## Minimum Credits: 1

Maximum Credits: 6
Directed study in a specific area of political science. Permission of the instructor is required.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## PS 1498 - DIRECTED RESEARCH: POLITICAL SCIENCE

## Minimum Credits: 1

Maximum Credits: 6
Independent research on a topic in political science.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## PS 1499 - INTERNSHIP: POLITICAL SCIENCE

Minimum Credits: 1
Maximum Credits: 6
Practical experience in political science in a setting. Work is directed by the employer and evaluated jointly with the faculty supervisor.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## Psychology

## PSY 0101 - INTRODUCTION TO PSYCHOLOGY

## Minimum Credits: 3

Maximum Credits: 3
An introduction to psychology and the major subfields of psychology. Topics include: experimental psychology; research methodology and statistics; learning; memory; brain and behavior; perception; human development; assessment techniques; personality theories; social psychology;

## PSY 0197 - DIRECTED STUDY

## Minimum Credits: 1

Maximum Credits: 6
Independent study in a topic in psychology. Permission of the instructor is required.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

## PSY 0201 - STATISTICS

## Minimum Credits: 4

## Maximum Credits: 4

A survey of the statistical procedures used in psychology and other behavioral sciences including; frequency distributions, percentile ranks, graphing, measures of central tendency, measures of variability, standard scores and the normal distribution, sampling techniques, and sampling distribution theory, hypothesis testing, the z -test, the t -tests, a-nova, correlations and prediction, and chi-square.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: Letter Grade
Course Requirements: Prerequisite: MATH 0098 or higher
General Education: Computational Sciences

## PSY 0202 - CHILD DEVELOPMENT

## Minimum Credits: 3

Maximum Credits: 3
The study of the physiological, behavioral, cognitive, social, and emotional changes that occur from conception until adolescence. Topics include: genetics and prenatal development; cognitive development; language development; intelligence testing; emotional and social development; and biological development.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: Completion of PSY 0101 required for all higher level psychology courses
Course Attributes: UPB Behavioral Sciences General Ed. Requirement
General Education: Behavioral Sciences

## PSY 0203 - SOCIAL PSYCHOLOGY

## Minimum Credits: 3

Maximum Credits: 3
This class will give you a general introduction to the field of social psychology, which is the study of how people think, feel, and behave when interacting with other people. Topics include attitudes and persuasion, group psychology, group behavior, and interpersonal attraction.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: Completion of PSY 0101 required for all higher level psychology courses
Course Attributes: UPB Behavioral Sciences General Ed. Requirement
General Education: Behavioral Sciences

Minimum Credits: 3
Maximum Credits: 3
This class will give you a general introduction to personality theories and present a framework for how psychologists conceptualize and study personality. The course will examine the four forces of personality research, including psychodynamic, social-cognitive, trait, and humanistic approaches.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: Completion of PSY 0101 required for all higher level psychology courses
Course Attributes: UPB Behavioral Sciences General Ed. Requirement
General Education: Behavioral Sciences

## PSY 0206 - ABNORMAL PSYCHOLOGY

## Minimum Credits: 3

Maximum Credits: 3
The study of abnormal behavior, its causes, methods of classification, and therapeutic modification approaches.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: Completion of PSY 0101 required for all higher level psychology courses
Course Attributes: UPB Behavioral Sciences General Ed. Requirement
General Education: Behavioral Sciences

## PSY 0207 - PROFESSIONAL SEMINAR IN PSYCHOLOGY

## Minimum Credits: 3

Maximum Credits: 3
This course will provide an introduction of professional opportunities in psychology and related fields at the Undergraduate and graduate level. Additionally, this course will introduce information, skills, and resources that will assist in planning for applying to psychology related careers at the Undergraduate level and planning for applying to psychology related graduate schools.
Academic Career: Undergraduate
Course Component: Seminar
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: Completion of PSY 0101 required for all higher level psychology courses

## PSY 0209 - LIFESPAN DEVELOPMENT

## Minimum Credits: 3

Maximum Credits: 3
This course will focus on the processes of human development from conception through the lifespan. Specifically, topics will be related to the developmental changes in the individual's physical, cognitive, and social-emotional development from conception through late adulthood, death, and factors that may impact this development.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: Completion of PSY 0101 required for all higher level psychology courses
Course Attributes: UPB Behavioral Sciences General Ed. Requirement

## PSY 0265 - DATA ANALYSIS AND RESEARCH WRITING

## Minimum Credits: 3

Maximum Credits: 3
This course covers SPSS data analyses and the introduction to the writing style required by the American psychological association. (APA style)
Academic Career: Undergraduate
Course Component: Lecture

## PSY 1301 - EXPERIMENTAL PSYCHOLOGY

## Minimum Credits: 3

## Maximum Credits: 3

An introduction to the basic principles of research and experimentation in psychology. Topics will include how one performs research, what one does after data have been collected, and the writing of research report.

## Academic Career: Undergraduate

Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Completion of competency courses (FS 0102, ENG 0101, ENG 0102 and MATH 0098 or higher) and PSY 0101 and (PSY 0201 or ECON 0204 or MATH 0133), PSY 0265 (with C- or higher) and one additional PSY course.

## PSY 1302-COGNITIVE DEVELOPMENT

## Minimum Credits: 3

Maximum Credits: 3
Current theories about children's knowledge and the issues surrounding the development of that knowledge. Topics include memory development, perceptual development, language development, development of problem-solving abilities, and the development of intelligence.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: Completion of competency courses (FS 0102, ENG 0101, ENG 0102 and MATH 0098 or higher) and PSY 0101 and (PSY 0202 or 0209)

## PSY 1303 - PSYCHOLOGICAL ASSESSMENT

## Minimum Credits: 3

Maximum Credits: 3
The uses, applications, and underlying concepts of psychological testing. Topics include how tests are standardized, the reliability and validity of tests, and types of tests psychologists use (e.g. intelligence tests, personality tests).

## Academic Career: Undergraduate

Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PSY 0101, PSY 0201 (or ECON 0204 or MATH 0133) and completion of competency courses (ENG 0101, 0102, FS 0102 and MATH 0098 or higher).

## PSY 1304 - HUMAN MEMORY

## Minimum Credits: 3

Maximum Credits: 3
This course deals with the current theoretical and applied issues in human memory. A study of the human ability to acquire and retain information, to recall it when needed, and to recognize its familiarity when it is seen or heard again.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: PSY 0101 and a second course in psychology

## PSY 1307 - PSYCHOLOGY OF MUSIC

## Minimum Credits: 3

Maximum Credits: 3
This course draws from the fields of personality and social psychology and relates them to several aspects of music. Topics include individual
differences in musical behavior, the role of music in small social and group situations, large-scale social and cultural influences, the development of musical preferences, and applications.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Completion of PSY 0101 and all competencies is required before taking upper-level PSY courses

## PSY 1311 - SOCIOEMOTIONAL DEVELOPMENT

## Minimum Credits: 3

## Maximum Credits: 3

This course will focus on the socio-emotional developmental processes, focusing on those that occur from birth through adolescence. Specifically, topics may include attachment, socialization, self-regulation, morality, \& self-identity.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Completion of competency courses (FS 0102, ENG 0101, 0102 and MATH 0098 or higher), PSY 0101 and then either PSY 0202 or 0209.

## PSY 1313-PARENTING AND FAMILY

## Minimum Credits: 3

Maximum Credits: 3
Examination of the theories and practices of parenting, as well as the changing social dynamics of parenting and parental roles. Topics may include attachment parenting, discipline, cross-cultural expectations, LGBT families, and ethnic differences within the US, major legal landmarks effecting parenting, and different roles and behaviors among mothers, fathers, step-parents, and non-parental caregivers, among others.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Completion of PSY 0101 and all competencies is required before taking upper-level PSY courses

## PSY 1314 - PSYCHOLOGY OF GENDER \& SEXUALITY

## Minimum Credits: 3

## Maximum Credits: 3

This course will examine the discrete differences between sex, gender, sexuality, and culture-based morality. Topics may include some cross-cultural examination, and some gender-based and sexual subpopulations. The topics will be approached from a scientific - specifically, a psychological, biological and anthropological - perspective with the intent to better understand human nature, health, and behavior.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Completion of PSY 0101 and all competencies is required before taking upper-level PSY courses

## PSY 1316 - CONSUMER PSYCHOLOGY

## Minimum Credits: 3

Maximum Credits: 3
This course draws from the fields of psychology, sociology, marketing, and economics to create a conceptual understanding of consumer behavior.
Topics include decision making, perception, memory, attitudes, and social media.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Completion of PSY 0101 and all competencies is required before taking upper-level PSY courses

Minimum Credits: 3
Maximum Credits: 3
This class focuses on the assessment, diagnosis, and treatment of psychological disorders commonly associated with children and adolescents. Some of the disorders addressed will include adjustment disorders, attention deficit hyperactivity disorder, autism spectrum disorders, disruptive behavior disorders, anxiety disorders, and mood disorders. Various treatment modalities and techniques associated with specific disorders will be presented.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: PSY 0206 and Junior Standing

## PSY 1318 - CHILDREN MEDIA \& SOCIALIZATION

Minimum Credits: 3
Maximum Credits: 3
This course would focus on critical consumerism of popular childhood-oriented media portrayals of psychological health and developmental tasks, which may include conflict resolution, adult assistance, risk behaviors, locus of control, etc.; influential factors such as stereotypes, socioeconomic status, and "white washing"/ethnic gloss of casts, among others may also be examined. Topics for which media will be examined may include stereotype promotion, diversity issues, educational / socioemotionally sound themes, etc.; media examined may include television programs, movies, books, manga / comics / graphic novels, music including videos, etc.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: PSY 0101, 0202 or 0209 AND PREQ: FS 0102, MATH 0098 OR higher AND PREQ: ENG 0101 and ENG 0102

## PSY 1319 - PSYCHOLOGY OF AGING

## Minimum Credits: 3

Maximum Credits: 3
This course surveys the process of aging. Topics to be covered include the psychological, social, and biological aspects of aging.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Completion of PSY 0101 and all competencies is required before taking upper-level PSY courses

## PSY 1335-PSYCHOLOGY OF PREJUDICE AND DISCRIMINATION

Minimum Credits: 3
Maximum Credits: 3
In this course, prejudice will be defined, and its origins and effects on individuals and society will be discussed. Psychological theories will be used to describe the process and results of prejudice.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Completion of PSY 0101 and all competencies is required before taking upper-level PSY courses

## PSY 1337 - HEALTH PSYCHOLOGY

Minimum Credits: 3
Maximum Credits: 3
Psychological research can be used to understand how the interaction between perception and cognition with the body's immune system affects the development of illness service delivery to individuals who have psychological problems as the result of illness and plan health care programs to reduce the incidence and/or duration of physical health problems. This course will provide an overview of the role that psychology is playing in the health care system and will focus on scientific psychological research linking our thoughts, feelings, and behavior to physical health.
Academic Career: Undergraduate
Course Component: Lecture

## PSY 1340 - PSYCHOLOGY AND ENVIRONMENTAL PROBLEMS

## Minimum Credits: 3

Maximum Credits: 3
This course focuses on the interplay between psychology and issues associated with environmental problems (ecology/sustainability). Issues that may be addressed include: the development of environmental attitudes, psychological theories that influence environmental attitudes, and applying psychological principles to address environmental concerns (e.g. environmental sustainability).
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: PSY 0101 or ENVSTD 0101 and Junior Standing

## PSY 1345 - THE PSYCHOLOGY OF CLOSE RELATIONSHIPS

## Minimum Credits: 3

Maximum Credits: 3
This course surveys the process of relationship formation. Topics to be covered include relationship initiation, maintenance, and dissolution.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Completion of PSY 0101 and all competencies is required before taking upper-level PSY courses

## PSY 1402 - SOCIAL INFLUENCES ON HUMAN DEVELOPMENT

## Minimum Credits: 3

Maximum Credits: 3
This course will explore the influence of culture and social forces on human development. Issues explored may include socioeconomic status and poverty, educational systems, cultural orientation, religion, race and ethnicity, parenting norms and mass media will be explored to answer the question: What influences who we become?
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PSY 0101 and 0202 or 0209 and junior standing

## PSY 1406 - LEARNING AND BEHAVIOR

## Minimum Credits: 3

Maximum Credits: 3
This course will deal with the major behavioral and cognitive approaches of human learning. Topics include: classical conditioning, operant conditioning, effects of reinforcement and punishment, memory, problem-solving techniques and motivation.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: PSY 0101 and a second course in psychology

## PSY 1407 - COUNSELING PSYCHOLOGY

## Minimum Credits: 3

Maximum Credits: 3
Various theories and practices of counseling and psychotherapy, including psychoanalytic therapy, person-centered therapy, gestalt therapy, behavior therapy, and rational emotive therapy. Communication skills and ethical issues are addressed.
Academic Career: Undergraduate
Course Component: Lecture

## PSY 1408 - COUNSELING PSYCHOLOGY LAB

## Minimum Credits: 1

Maximum Credits: 1
This lab is offered concurrently with PSY 1407, Counseling Psychology. The lab is designed to facilitate a hands-on experience to learn about the counseling process. The lab may involve observing and conducting mock counseling sessions, engaging in mock counseling supervision sessions, and learning about documenting counseling sessions.
Academic Career: Undergraduate
Course Component: Credit Laboratory
Grade Component: Satisfactory/No Credit
Course Requirements: PREQ: PSY 0206; CREQ: 1408; JUNIOR LEVEL

## PSY 1409 - MEDIA PORTRAYALS OF PSYCHOLOGY

## Minimum Credits: 3

Maximum Credits: 3
This course focuses on critical consumerism of popular media portrayals of psychological health and illness, topics of which may include addiction, and influential factors such as stereotypes, socioeconomic status, halo effect, and "white washing"/ethnic gloss of casts, among others. Media examined may include television programs, movies, books, manga / comics / graphic novels, music, etc.

## Academic Career: Undergraduate

Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PSY 0101 and 0202 or 0209 and junior standing

## PSY 1410 - PSYCHOLOGY AND LAW

## Minimum Credits: 3

Maximum Credits: 3
This class is designed to explore the relationship between psychology and the legal system. The class will focus on current trends and research associated with four main topics: 1) the role of psychology in the trial process, 2) the role of psychology in forensic assessments and treatment, 3) the role of psychology in the civil law, and 4) professional issues in the law-psychology field. Issues discussed will include expert testimony, eye-witness memory and testimony, child-witness testimony, death penalty, jury decision making, risk assessment, competence, insanity, employment and discrimination, child custody, training, and ethics.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: PSY 0101, PSY 0206, 3 Credits of PSY electives, and junior standing

## PSY 1447 - TOPICS IN COGNITIVE-DEVELOPMENTAL PSYCHOLOGY

## Minimum Credits: 3

Maximum Credits: 3
The advanced study of a special topic in cognitive-developmental psychology. Prerequisite: permission of instructor
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Completion of PSY 0101 and all competencies is required before taking upper-level PSY courses

## PSY 1452 - CAPSTONE: PSYCHOLOGY

[^5]a literature review or conduct an empirical (qualitative or quantitative) research project. Students choosing the literature review option will identify and develop research topics, conduct literature searches, critically read professional sources, and write an APA style manuscript. Students choosing the empirical research project will identify and develop research topics, conduct literature searches, critically read professional sources, plan data collection, collect data, conduct data analysis, and write an APA style manuscript.
Academic Career: Undergraduate
Course Component: Seminar
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: PSY 1301 with a grade of C- or better

## PSY 1494 - UNDERGRADUATE FACULTY ASSISTANT

## Minimum Credits: 1

Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit

## PSY 1496 - INTERNSHIP IN COUNSELING PSYCHOLOGY

## Minimum Credits: 1

Maximum Credits: 6
The internship is intended to provide students with the opportunity to explore professional, ethical, and counseling issues in a real world setting. Each internship experience will be unique depending upon the parameters of the internship site. As a result of the experience, it is expected that students will gain insight and critical thinking skills associated with counseling in a community setting.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit
Course Requirements: PREQ: Completion of competency courses (FS 0102, ENG $0101 \& 0102$ ) and MATH 0150 Calculus 2.

## PSY 1497 - DIRECTED STUDY: PSYCHOLOGY

Minimum Credits: 1
Maximum Credits: 6
Directed study in a specific area of psychology. Permission of the instructor is required.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

## PSY 1498 - DIRECTED RESEARCH: PSYCHOLOGY

## Minimum Credits: 1

Maximum Credits: 6
Independent work on a project in psychology supervised by a member of the psychology faculty.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101 , ENG 0102 , FS 0102 , and the MATH competency

## PSY 1499 - INTERNSHIP: PSYCHOLOGY

Minimum Credits: 1
Maximum Credits: 6

Students enrolled in this course have an opportunity to gain firsthand professional experience in psychology in a professional setting. Work is directed by the employer and evaluated jointly with the faculty supervisor.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit

## Radiological Science

## RADSC 0111 - BASIC HUMAN NEEDS

## Minimum Credits: 6

Maximum Credits: 6
In this course, the student is introduced to various aspects of the nursing curriculum: e.g. Orem's theory, Roy's adaptation model, Erikson's developmental theory, Maslow's basic human needs, concepts of stress and adaptation, health-illness continuum, nursing process, teaching and learning theories, nursing history, nursing roles and psychosocial and cultural influences on man, health, and nursing. Legal and ethical principles, communication skills, documentation, and clinical theories and skills are also taught. Nutrition is incorporated into this course with application in the clinical setting.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## RADSC 1301 - RADSCI CONTRACTUAL TERM

Minimum Credits: 1
Maximum Credits: 9
This course is offered in conjunction with BRMC as part of the sophomore year requirements.
Academic Career: Undergraduate
Course Component: Clinical
Grade Component: Satisfactory/No Credit
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## RADSC 1401 - RADSCI CONTRACTUAL TERM

Minimum Credits: 7
Maximum Credits: 9
This course is offered in conjunction with BRMC as part of the junior year requirements.
Academic Career: Undergraduate
Course Component: Clinical
Grade Component: Satisfactory/No Credit
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## RADSC 1451-CAPSTONE: RADTN SCI

## Minimum Credits: 3

Maximum Credits: 3
This course focuses on enabling the student to synthesize knowledge about the professional role within the health care delivery system. Theory related to leadership and management in radiology will be presented. Health care policy practice issues will also be presented.
Academic Career: Undergraduate
Course Component: Seminar
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## RADSC 1494 - UNDERGRADUATE FACULTY ASSISTANT

Minimum Credits: 1
Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: LG/SNC Elective Basis

## RADSC 1497 - DIRECTED STUDY: RADTN SCI

Minimum Credits: 1
Maximum Credits: 6
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101 , ENG 0102 , FS 0102 , and the MATH competency

## Sociology

## SOC 0101 - INTRODUCTION TO SOCIOLOGY

Minimum Credits: 3
Maximum Credits: 3
This course is an introduction to sociology's way of observing and explaining human group behavior. The course will include an exploration of theoretical orientations and methodological approaches used to study human group behavior. Society, culture, social institutions and social stratification will be analyzed. The issues involved in the process of change will complete the analysis of group behavior.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Attributes: SCI Polymathic Contexts: Soc/Behav. GE. Req., UPB Behavioral Sciences General Ed. Requirement
General Education: Behavioral Sciences

## SOC 0197 - DIRECTED STUDY

## Minimum Credits: 1

Maximum Credits: 6
Independent study in a topic in sociology. Permission of the instructor is required.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

## SOC 0201 - SOCIOLOGY OF GENDER

## Minimum Credits: 3

Maximum Credits: 3
Exploration of the cultural patterns and institutional arrangements that produce gendered identities and underlie sex based inequalities in contemporary society, focusing on change in these patterns and institutions.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: Completion of SOC 0101 is required for all higher level sociology courses
Course Attributes: UPB Behavioral Sciences General Ed. Requirement
General Education: Behavioral Sciences

## SOC 0202 - SOCIOLOGY OF SPORT

## Minimum Credits: 3

Maximum Credits: 3
For the athlete or spectator, sport is a social behavior that can be investigated using the theories and tools of sociology. Topics include the relationships between sport and culture, racism, sexism, education, religion, and politics.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: Completion of SOC 0101 is required for all higher level sociology courses General Education: Behavioral Sciences

## SOC 0204 - SOCIOLOGY OF DEVIANCE

## Minimum Credits: 3

Maximum Credits: 3
This course deals with a description and analysis of a wide range of "deviant" behavior. Emphasis is on social psychological and sociocultural explanations of deviant behavior including prostitution, crime, drug addiction, homosexuality, elite crimes, and mental illness.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: Completion of SOC 0101 is required for all higher level sociology courses
Course Attributes: UPB Behavioral Sciences General Ed. Requirement
General Education: Behavioral Sciences

## SOC 0206 - CRIMINOLOGY

## Minimum Credits: 3

Maximum Credits: 3
This course will examine the nature of criminal behavior, criminal law and the American system of criminal justice. Sociological, biological and psychological theories of criminal behavior will be explored. Topics will include the sociological impact of criminal behavior on contemporary society; issues of constitutional law and current issues in criminal justice. The relationship of the police, the courts and correctional institutions to American society will also be discussed.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## SOC 0207 - SOCIOLOGY OF RACE AND ETHNICITY

## Minimum Credits: 3

Maximum Credits: 3
The purpose of this course is to engage students in a scholarly exploration of the experience, performance, and implications of race-ethnicity in the U . S. Incorporating a sociological lens, this course begins with the assumption that race and ethnicity are constructed phenomena. Shifting across time and place consequent of social, political, economic, and cultural forces. We will also apply an intersectional lens to explore systemic inequalities created by the co-constructions of race, class, gender, sexuality, ability, age, and place.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: Completion of SOC 0101 is required for all higher level sociology courses
General Education: Behavioral Sciences

## SOC 0235 - ENVIRONMENTAL SOCIOLOGY

Minimum Credits: 3
Maximum Credits: 3
Environmental sociology examines large-scale narrative on environmental issues. This narrative conveys the natural connections between people,
animals, minerals, land, water and plants. It also introduces social constructs: pollution, over-consumption, resource depletion, habitat loss, risky technology and rapid population growth. This course examines the social significance of these and other environmental conceptualizations from the standpoint of culture, ideology, moral values and social inequality.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Attributes: UPB Behavioral Sciences General Ed. Requirement
General Education: Behavioral Sciences

## SOC 1301 - THE FAMILY

## Minimum Credits: 3

Maximum Credits: 3
This course will examine the structures, functions, and conflicts of the contemporary family. Beginning with a historical review of the origins of the modern family, and a cross-cultural examination of family forms, the course proceeds to an in-depth look at current family issues: courtship, marriage, socialization and aging. Social class, race, and sex are examined as factors contributing to family structure.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency General Education: Behavioral Sciences

## SOC 1302 - SOCIALIZATION

## Minimum Credits: 3

Maximum Credits: 3
This course will examine the nature and dynamics of human socialization. Topics will include the socialization process from the perspectives of the individual, from birth to death, and the society.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: SOC 0101 and competencies (ENG 0101, 0102, MATH, and FS 0102)
General Education: Behavioral Sciences

## SOC 1305-ORGANIZATIONAL BEHAVIOR

## Minimum Credits: 3

Maximum Credits: 3
This course stresses the sociological approach to the study of organizations. Among topics covered are organizations' nature, internal dynamics, environments, strain and change, case study analysis is used extensively.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: SOC 0101 and competencies (ENG 0101, 0102, MATH, and FS 0102)

## SOC 1306 - WORK AND SOCIETY

## Minimum Credits: 3

Maximum Credits: 3
A sociological overview of work. The course examines the historical development of the American workplace and its present organization. It will also include cross-cultural comparisons. Topics include occupational stratification, the organization of the workplace, the modern factory, the white collar world, women in the work force, automation, alienation, and labor organizing.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## SOC 1307 - SOCIOLOGY OF HEALTH ILLNESS AND DISEASE

## Minimum Credits: 3

Maximum Credits: 3
Analyzes social factors in relation to health and disease. Consideration given to definitions of health, illness behavior, the formal and informal organization of health professions and institutions, and the expanding role of government in the health field. Use will be made of both theory and current research. Ethics in health care will also be examined.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## SOC 1308 - INEQUALITY IN SOCIETY

## Minimum Credits: 3

Maximum Credits: 3
This course will focus on the analysis of stratification within our society. We will look at how inequalities of wealth and power, combined with such factors as work, education, race, gender, and age, create a highly stratified social class system.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: SOC 0101 and competencies (ENG 0101, 0102, MATH, and FS 0102)
General Education: Behavioral Sciences

## SOC 1310 - SOCIOLOGICAL THEORY

## Minimum Credits: 3

Maximum Credits: 3
This course will examine the development of sociology from its historical beginnings to sociology in the 20th century. Special attention will be given to the development of different perspectives, theories, and concepts.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: SOC 0101 and competencies (ENG 0101, 0102, MATH, and FS 0102)
Course Attributes: UPB Behavioral Sciences General Ed. Requirement
General Education: Behavioral Sciences

## SOC 1311 - SOCIAL WORK

Minimum Credits: 3
Maximum Credits: 3
An examination of the profession of social work and the field of social welfare, including a comprehensive overview of the way social workers respond to a wide variety of societal problems.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: SOC 0101 and competencies (ENG 0101, 0102, MATH, and FS 0102)
General Education: Behavioral Sciences

## SOC 1316 - SOCIAL AND CULTURAL CHANGE

Minimum Credits: 3
Maximum Credits: 3

This course presents sociology from a global perspective in three ways: it focuses on social change as a critical factor in understanding society today, it uses a cross international approach to compare nations and regions of the world, it examines the ties between societies and the manner in which these relationships create a global society.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: SOC 0101 and competencies (ENG 0101, 0102, MATH, and FS 0102)
General Education: Global

## SOC 1318 - SOCIOLOGY OF SEXUALITY

## Minimum Credits: 3

Maximum Credits: 3
This course will provide an introductory inquiry into the sociological study of sexuality. Using a social constructionist lens, we will explore the shifting acceptance and sanction of sexual expression, behaviors, and identities. Sexuality will be further explored relative to gender, class, race/ethnicity, age, ability, politics, and the economy, making visible positions of privilege and oppression. A range of theories, concepts, and research from the social sciences will be considered as students develop a critical understanding of sexuality in the social world

## Academic Career: Undergraduate

Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: SOC 0101 and competencies (ENG 0101, 0102, MATH, and FS 0102)
Course Attributes: UPB Behavioral Sciences General Ed. Requirement
General Education: Behavioral Sciences

## SOC 1337 - IDENTITY POLITICS

## Minimum Credits: 3

## Maximum Credits: 3

This course on identity politics focuses on the interaction of categories such as race, ethnicity, class, gender, and sexuality and the role that identity plays in politics on a national and global level. The course will examine identity-based rights movements and evaluate policy-making changes in light of these movements
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency General Education: Behavioral Sci-Global

## SOC 1401 - SOCIAL RESEARCH

## Minimum Credits: 3

Maximum Credits: 3
An introduction to the methods of research in the social sciences including the relationship between research and theory, how research projects are designed, how variables are developed and measured, and how samples are gathered.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: SOC 0101 and competencies (ENG 0101, 0102, MATH, and FS 0102)

## SOC 1451 - CAPSTONE: SOCIOLOGY

## Minimum Credits: 3

Maximum Credits: 3
Seminar participants are responsible for preparing and delivering a formal paper on a seminar theme in sociology.
Academic Career: Undergraduate
Course Component: Seminar

## SOC 1455-TOPICS IN SOCIOLOGY

## Minimum Credits: 3

Maximum Credits: 3
The advanced study of a special topic in sociology.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0104 (or FS 0102), and the MATH competency

## SOC 1494 - UNDERGRADUATE FACULTY ASSISTANT

## Minimum Credits: 1 <br> Maximum Credits: 3

The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.

## Academic Career: Undergraduate

Course Component: Internship
Grade Component: Satisfactory/No Credit

## SOC 1497 - DIRECTED STUDY: SOCIOLOGY

## Minimum Credits: 1

Maximum Credits: 6
Independent study in a topic in sociology.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## SOC 1498 - DIRECTED RESEARCH: SOCIOLOGY

Minimum Credits: 1
Maximum Credits: 6
An in-depth investigation of an issue in the student's area of interest. Topic, research procedure, and progress are discussed in meetings with the supervising professor.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

## SOC 1499 - INTERNSHIP: SOCIOLOGY

Minimum Credits: 1
Maximum Credits: 6
An internship for sociology majors to allow them to apply the knowledge and skills learned in the classroom to practical situations in a professional setting. Internships are assigned on the basis of student's interest and the availability of positions. Work is directed by the employer and evaluated jointly with the faculty supervisor.
Academic Career: Undergraduate
Course Component: Internship

## Spanish

## SPAN 0101 - ELEMENTARY SPANISH 1

## Minimum Credits: 3

Maximum Credits: 3
This course is designed to develop the student's communicative proficiency through an integrated approach to the teaching of all four language skills: listening, speaking, reading and writing. Grammatical structures; vocabulary and readings are presented as tools for developing good communication skills. The course also aims to foster cultural awareness of the Spanish-speaking world.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Attributes: UPB Global General Ed. Requirement, UPB Language General Ed. Requirement

## SPAN 0102 - ELEMENTARY SPANISH 2

Minimum Credits: 3
Maximum Credits: 3
A continuation of Elementary Spanish 1, training in spoken and written Spanish.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Attributes: DSAS Second Language General Ed. Requirement, UPB Global General Ed. Requirement, UPB Language General Ed. Requirement
General Education: Language/Global

## SPAN 0197 - DIRECTED STUDY

Minimum Credits: 1
Maximum Credits: 6
Independent study in a topic in Spanish. Permission of the instructor is required.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

## SPAN 0201-INTERMEDIATE SPANISH 1

## Minimum Credits: 3

Maximum Credits: 3
A more advanced study of spoken and written Spanish. A thorough grammar review together with selected readings and a concentration on developing conversational ability, using a broad range of topics from everyday life.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Language/Global

## SPAN 0202 - INTERMEDIATE SPANISH 2

Minimum Credits: 3
Maximum Credits: 3
A continuation of intermediate Spanish 1; grammar, reading, and conversation.
Academic Career: Undergraduate

## SPAN 1308 - ADVANCED SPANISH

## Minimum Credits: 3

Maximum Credits: 3
This is a course in advanced Spanish that allows students to acquire a broader and deeper knowledge of Spanish structure, vocabulary, and idiomatic usage. In addition, students will be able to progress in their reading and aural comprehension skills as well as in their command of the spoken language and their familiarity with aspects of the various cultures of the hispanophone world.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency Course Attributes: UPB Global General Ed. Requirement, UPB Language General Ed. Requirement
General Education: Language/Global

## SPAN 1315 - SPANISH FOR PROFESSIONAL COMMUNICATIN

## Minimum Credits: 3

## Maximum Credits: 3

This course will present a variety of formal communication-related topics throughout the Hispanic world and help students begin to develop their professional profile in Spanish. The main objective is to introduce students to the Hispanic professional environment through formal Spanish terminology and usage, cultural practices, and professional communication. This class will be conducted in a seminar format, with a strong focus on conversation and writing. Students will also learn about the geographical, political, demographic and economic realities of Hispanic countries. In order to develop intercultural competence, students will be invited to make connections and comparisons between the US and Hispanic world. Moreover, students will engage with invited speakers and job interviewers from Latin America
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## SPAN 1494 - UNDERGRADUATE FACULTY ASSISTANT

## Minimum Credits: 1

Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit

## SPAN 1497 - DIRECTED STUDY: SPANISH

Minimum Credits: 1
Maximum Credits: 6
Directed study in a specific area of Spanish. Permission of the instructor is required.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## Theatre Arts

## THEA 0101 - INTRODUCTION TO THEATRE

## Minimum Credits: 3

Maximum Credits: 3
An introduction to the procedures, standards, and materials that make theatre an art form. Focuses on aesthetic assumptions, acting, directing, stagecraft, and production organization and management from an occupational viewpoint.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Arts

## THEA 0102 - THEATRE PRACTICUM - DESIGN AND STAGECRAFT

## Minimum Credits: 1

Maximum Credits: 3
Students spend half the term on overall priorities, processes and basic techniques of theatre design - scenic, lighting, costume, sound - and half the term on the creation, implementation, construction and running of all design aspects of that term's student production. No previous theatrical experience is required for this course.
Academic Career: Undergraduate
Course Component: Practicum
Grade Component: LG/SNC Elective Basis
Course Attributes: UPB Arts General Ed. Requirement
General Education: Arts

## THEA 0103 - THEATRE PRACTICUM: PERFORMANCE

Minimum Credits: 1
Maximum Credits: 3
Students learn how to perform in a theatrical production by developing a system for character development, line memorization, rehearsals, and all the other production systems. A student needs no theatrical experience in order to try out for a role.
Academic Career: Undergraduate
Course Component: Practicum
Grade Component: LG/SNC Elective Basis
General Education: Arts

## THEA 0104 - BASIC ACTING

Minimum Credits: 3
Maximum Credits: 3
The first part of this course is devoted to theatrical games and improvisation with the second part structured around scene work. Students are introduced to beginning exercises, role analysis, and scene work.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Arts

## THEA 0106 - SURVEY OF WORLD THEATRE

Minimum Credits: 3
Maximum Credits: 3
This course introduces students to theatre and its production in a variety of countries and cultures. It gives students structures by which to understand the practice of different theatrical traditions and grounds plays in their cultural and political era and area. The aspects held in common by varied theatrical forms are discussed as well as the cultural differences among particular theatrical practices.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## THEA 0203 - PLAY ANALYSIS

Minimum Credits: 3
Maximum Credits: 3
A study of the forms of drama including realism and nonrealism, presentational and no presentational with special attention to production, design, and the special dramatic choices that plays present to directors, actors, and technicians.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Arts

## THEA 0210 - MOVEMENT AND STAGE COMBAT

## Minimum Credits: 3

Maximum Credits: 3
This course utilizes a mixture of Pilates, yoga, and physical acting exercises in preparation for the intense physical work of stage combat. Students will then learn the basics of at least three of the standard disciplines: unarmed, single sword, rapier and dagger, quarterstaff, knife, broadsword, etc. Please note: this course will be physically demanding.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Physical Education

## THEA 1302 - DIRECTING AND DEVISING

## Minimum Credits: 3

Maximum Credits: 3
If we think of playwriting as the act of authoring a script, then directing is more the act of authoring an event. Playwrights manipulate words to craft stories on the page, while directors manipulate time and space to craft experiences in the rehearsal room and eventually on the stage. This collaborative and co-creative class focusses on the construction of the theatrical event. Students will build a shared vocabulary for articulating the varied elements of the theatrical moment, and then explore practical ways and means to respond, to contribute and to shape the moment. Students will develop creative problem-solving strategies in a daily practice of selecting and arranging the separate components of the theatrical language for the purpose of generating bold cohesive works of art.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency General Education: Arts

## THEA 1494 - UNDERGRADUATE FACULTY ASSISTANT

## Minimum Credits: 1

Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit

## THEA 1497 - DIRECTED STUDY: THEATRE ARTS

Minimum Credits: 1
Maximum Credits: 6
Directed study in a specific area of theatre. Permission of the instructor is required.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

## THEA 1498 - DIRECTED RESEARCH: THEATRE ARTS

Minimum Credits: 1<br>Maximum Credits: 6<br>Independent work on a project in theatre, supervised by a member of the theatre faculty.<br>Academic Career: Undergraduate<br>Course Component: Directed Studies<br>Grade Component: LG/SNC Elective Basis

## THEA 1499 - INTERNSHIP: THEATRE ARTS

## Minimum Credits: 1

Maximum Credits: 6
Practical experience in theatre in a professional setting. Work is directed by the employer and evaluated jointly with the faculty supervisor.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## Women's Studies

## WOMNST 1494 - UNDERGRADUATE FACULTY ASSISTANT

## Minimum Credits: 1

Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit

## WOMNST 1499-INTERNSHIP: WOMEN'S STUDIES

## Minimum Credits: 1

Maximum Credits: 6
An internship is a special type of independent study in which the student works in a professional setting. The project is designed in consultation with the academic supervisor and conducted under the guidance of an on-site supervisor. An internship allows students to apply the knowledge and skills learned in the classroom to practical situations in a professional setting. Internships are assigned on the basis of student's interest and the availability of positions.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## Writing

## WRITNG 0106 - FICTION WRITING 1

## Minimum Credits: 3

Maximum Credits: 3
Explores the basic elements of fiction writing, including narrative, scene, character, and dialogue, as well as the habits necessary to grow as a writer. Students will read a wide variety of fiction in different forms and genres alongside essays on writing craft in order to develop a language for talking about how fiction works. Frequent writing exercises, often inspired by the readings, will underscore specific craft problems and perhaps generate longer stories. Students will write at least two short stories and 15 pages of significant revision and present their work for critique in a supportive workshop setting.
Academic Career: Undergraduate
Course Component: Seminar
Grade Component: LG/SNC Elective Basis
Course Attributes: UPB Arts General Ed. Requirement
General Education: Arts

## WRITNG 0107 - POETRY WRITING 1

## Minimum Credits: 3

Maximum Credits: 3
In this introductory course, students will write and read widely, exploring various aspects of poetic craft, including imagery, metaphor, line, stanza, music, rhythm, diction, and tone. Students will also examine a number of poetic traditions, including the sonnet, the villanelle, the sestina, found poetry, and ekphrastic poetry. Through peer critique, students respond closely to the work of fellow writers in a supportive workshop.
Academic Career: Undergraduate
Course Component: Seminar
Grade Component: LG/SNC Elective Basis
Course Attributes: UPB Arts General Ed. Requirement
General Education: Arts

## WRITNG 0108 - CREATIVE NONFICTION 1

## Minimum Credits: 3

Maximum Credits: 3
Introduces the groundbreaking genre of creative nonfiction, exploring its many and fluid forms,including memoir, personal essays, immersion journalism, nature, travel, food, and spiritual writing, lyric essays, and flash nonfiction. Students will read a wide variety of works in the genre alongside essays on writing craft in order to develop techniques for telling their stories, including voice, scene, description, and structure. Frequent writing exercises, often inspired by the readings, will underscore specific craft problems and help to generate longer works. Students will write three pieces and at least 15 pages of revision, presenting their work for critique in a supportive workshop setting.
Academic Career: Undergraduate
Course Component: Seminar
Grade Component: LG/SNC Elective Basis
Course Attributes: UPB Arts General Ed. Requirement
General Education: Arts

## WRITNG 0109 - INTRODUCTION TO CREATIVE WRITING

## Minimum Credits: 3

Maximum Credits: 3
An introduction to the four genres of creative writing: poetry, fiction, creative nonfiction, and drama. Students will explore aspects of poetic craft, including imagery, metaphor, stanza, music, rhythm, diction, and tone; experiment with element of storytelling such as narrative, scene, character, voice, and dialogue; and examine overlapping and distinct elements of drama such as structure, scene, and dialogue. Students will complete exercises, drafts, and a longer final project in the genre of their choice and present them for critique in a supportive workshop setting.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

WRITNG 0110 - SCRIPTWRITING FOR STAGE AND SCREEN

## Minimum Credits: 3

Maximum Credits: 3
This course is an introduction to dramatic writing as a way of telling stories. It is designed to expose students to the concepts of dramatic structure in scriptwriting with a focus on the craft of story. Students explore story structure, character development, use of conflict, scene writing, and dialogue, applying these basic dramatic principles to the development of their own original material. Students will participate in invention work, outlines/drafts, writing exercises, table readings, workshop review, discussion of plays and screenplays by professional writers, and giving and receiving feedback in a supportive workshop environment. Students will write monologues and brief plays as well as a longer final project of their choice, either a play, a television script, or a screenplay.
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## WRITNG 0111 - LITERARY EDITING AND MAGAZINE PRODUCTION 1

## Minimum Credits: 3

## Maximum Credits: 3

An introductory seminar in the philosophical and practical issues of magazine production. Students will work in practical situations to become acquainted with the field of literary editing and magazine production including production values, editing practices, proofreading, layout and design, preparation of text, publicity, and promotion. Coursework will include researching and studying the history and traditions of literary magazines and examining ethical issues related to print media.
Academic Career: Undergraduate
Course Component: Seminar
Grade Component: LG/SNC Elective Basis

## WRITNG 0197 - DIRECTED STUDY

Minimum Credits: 1<br>Maximum Credits: 6<br>Independent study in a topic in writing. Permission of the instructor is required.<br>Academic Career: Undergraduate<br>Course Component: Directed Studies<br>Grade Component: LG/SNC Elective Basis

## WRITNG 0210 - INTRODUCTION TO BLOGGING

## Minimum Credits: 3

Maximum Credits: 3
In this course, we will explore the form of the personal blog, examining the way expectations intersect with creative nonfiction and feature writing and also depart from it. We'll examine the functions of teaching, persuading, curating, and, in particular, storytelling, looking at methods of reaching and moving audiences in a relatively short form as well as using social media to attract readers, cultivating an online presence and sense of community, and using a blog to establish a platform for your other writing. We'll look at models of online blogs as well as blogs that became books. GE Arts
Academic Career: Undergraduate
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

## WRITNG 0211 - LITERARY EDITING AND MAGAZINE PRODUCTION 2

## Minimum Credits: 3

## Maximum Credits: 3

An intermediate seminar in the philosophical and practical issues of magazine production. Students will continue work begun in literary editing and magazine production 1, further developing skills and knowledge of production values, editing practices, proofreading, layout and design, preparation of text, publicity, and promotion. Coursework will include researching and studying the history and traditions of literary magazines and examining ethical issues related to print media.
Academic Career: Undergraduate

## WRITNG 0220 - FEATURE WRITING FOR MAGAZINES AND THE WEB

## Minimum Credits: 3

Maximum Credits: 3
Students will explore the myriad ways that staff and freelance writers make a living producing features for magazines, the web, and other publications. Students will experiment with a variety of forms, including profiles of people and places, instructional, informational and service, essay, narrative and opinion, humor and satire, historical or inspirational, spot features and trend stories. Students will read examples from current print and online publication as well as articles on crafting features, writing four pieces throughout the semester and presenting them for critique in a supportive workshop setting.
Academic Career: Undergraduate
Course Component: Seminar
Grade Component: LG/SNC Elective Basis
Course Attributes: UPB Arts General Ed. Requirement
General Education: Arts

## WRITNG 0250 - SPECIAL TOPICS

Minimum Credits: 3
Maximum Credits: 3
The study of a special topic in writing.
Academic Career: Undergraduate
Course Component: Seminar
Grade Component: LG/SNC Elective Basis

## WRITNG 1302 - FICTION WRITING 2

## Minimum Credits: 3

Maximum Credits: 3
This course will continue to examine the basic elements of fiction and models from different forms and genres, including short stories and novels, literary, fantasy, detective, women's, and science fiction, as well as readings on craft. Frequent writing exercises and response papers to the readings will underscore specific craft issues. Students will write at least two short stories or novel excerpts as well as significant revision, presenting work for critique in a supportive workshop setting.
Academic Career: Undergraduate
Course Component: Seminar
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: Completion of Competencies and WRITNG 0106

## WRITNG 1304 - POETRY WRITING 2

Minimum Credits: 3
Maximum Credits: 3
In this course, students will continue to explore poetic craft, reading and writing a variety of poetry as well as response papers to the readings that will underscore specific craft issues. Students will participate in writing exercises and produce a poem a week as well as revision, presenting their work for critique in a supportive workshop setting.
Academic Career: Undergraduate
Course Component: Seminar
Grade Component: LG/SNC Elective Basis
Course Requirements: UPB preq: WRITNG 0107\&Competencies

## WRITNG 1305- TECHNICAL WRITING

Minimum Credits: 3
Maximum Credits: 3

This course is designed to teach students on-the-job writing skills. Much industrial writing is informative and involves explaining something to varied audiences. If you always hated awkward assembly instructions or confusing manuals, here's your chance to change the world. The course will teach techniques of audience analysis, user-testing and fog indexing to predict the success of a document. Organization of data will be stressed along with revision, team writing and document design.
Academic Career: Undergraduate
Course Component: Seminar
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## WRITNG 1311 - LITERARY EDITING AND MAGAZIONE PRODUCTION 3

## Minimum Credits: 3

Maximum Credits: 3
An advanced seminar in the philosophical and practical issues of magazine production. Students will continue work begun in literary editing and magazine production 1, further developing skills and knowledge of production values, editing practices, proofreading, layout and design, preparation of text, publicity, and promotion. Coursework will include advanced work in layout and design.
Academic Career: Undergraduate
Course Component: Seminar
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## WRITNG 1401 - CREATIVE NONFICTION: LITERARY JOURNALISM

## Minimum Credits: 3

Maximum Credits: 3
This course will focus on the immersion journalism branch of creative nonfiction, building on students' skills for producing magazine, newspaper, and web features as well as exploring longer projects. Students will read examples of book-length works that bring together journalistic and creative writing techniques, then produce three longer articles or chapters of their own and presenting them for critique in a supportive workshop setting.
Academic Career: Undergraduate
Course Component: Seminar
Grade Component: LG/SNC Elective Basis
Course Requirements: UPB PRQ: WRITNG 108\&COMPETENCY

## WRITNG 1402 - CREATIVE NONFICTION: WRITING FROM PERSONAL EXPERIENCE

## Minimum Credits: 3

Maximum Credits: 3
This course will focus on creative nonfiction forms that use personal experience as a starting point, including memoir and the personal essay and their many offshoots: travel, nature, spiritual, and food writing, lyric essays, and flash nonfiction. Students will read a wide variety of works in the genre alongside essays on writing craft in order to continue developing techniques for telling their stories, participate in frequent writing exercises, and write three pieces and do significant revision, presenting their work for critique in a supportive workshop setting.
Academic Career: Undergraduate
Course Component: Seminar
Grade Component: LG/SNC Elective Basis
Course Requirements: UPB PRQ: WRITNG 108\&COMPETENCY

## WRITNG 1450 - TOPICS IN WRITING

## Minimum Credits: 3

Maximum Credits: 3
Advanced study of a special topic in journalism, fiction, poetry, or technical writing.
Academic Career: Undergraduate
Course Component: Seminar
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101 , ENG 0102, FS 0102, and the MATH competency

## WRITNG 1451 - CAPSTONE: WRITING

## Minimum Credits: 3

Maximum Credits: 3
A seminar which requires students to complete one or more major writing projects on and/or in a particular genre or topic and to give at least one seminar presentation
Academic Career: Undergraduate
Course Component: Seminar
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## WRITNG 1494 - UNDERGRADUATE FACULTY ASSISTANT

## Minimum Credits: 1

Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: Undergraduate
Course Component: Independent Study
Grade Component: Satisfactory/No Credit

## WRITNG 1497 - DIRECTED STUDY: WRITING

## Minimum Credits: 1

Maximum Credits: 6
Directed study is designed to give students the opportunity to design and carry out a research project to be agreed upon by the student and the supervising faculty member.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

## WRITNG 1498 - DIRECTED RESEARCH: WRITING

## Minimum Credits: 1

Maximum Credits: 6
Independent work on a writing project in poetry, fiction, or nonfiction supervised by a member of the writing faculty.
Academic Career: Undergraduate
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0104 (or FS 0102), and the MATH competency

## WRITNG 1499 - INTERNSHIP: WRITING

## Minimum Credits: 1

Maximum Credits: 6
Practical experience in writing in a professional setting. Students work at campus or community offices and businesses, including newspapers and radio stations. Work is directed by the employer and evaluated jointly with the faculty supervisor.
Academic Career: Undergraduate
Course Component: Internship
Grade Component: Satisfactory/No Credit
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency


[^0]:    * Note: VA defines a Covered Individual as any individual who is entitled to VA educational assistance under the VA's Vocational Rehabilitation and Employment program (38 U.S. Code Chapter 31) or the VA's Post-9/11 GI Bill® (38 U.S. Code Chapter 33).

[^1]:    Minimum Credits: 3
    Maximum Credits: 3
    Unified treatment of separation processes which are carried out in staged equipment. Computer solutions are emphasized. Binary distillation, calculations using graphical methods, multicomponent distillation of ideal and non ideal mixtures, liquid extraction, and differential distillation are studied.
    Academic Career: Undergraduate
    Course Component: Lecture
    Grade Component: LG/SU3 Elective Basis
    Course Requirements: PREQ: CHE 0035

[^2]:    Minimum Credits: 3
    Maximum Credits: 3
    It professionals will encounter a variety of platforms in their career. The role of the professional is to select, deploy, integrate, and administer platforms or components to support the organization's it infrastructure. This course covers the fundamentals of hardware and software and how they integrate to form essential components of it systems.
    Academic Career: Undergraduate
    Course Component: Lecture
    Grade Component: LG/SNC Elective Basis

[^3]:    Minimum Credits: 3
    Maximum Credits: 3
    The advanced study of a special topic in computer information systems and technology.

[^4]:    Minimum Credits: 1
    Maximum Credits: 1
    Aerobic conditioning to music. This overall circuit workout class includes walking, jogging, and stretching, plus stomach, lower body and upper body exercises.
    Academic Career: Undergraduate

[^5]:    Minimum Credits: 3
    Maximum Credits: 3
    Students will develop and apply core professional research related writing skills. During the capstone seminar, students will choose whether to write

